

**Peace in the Oceans  
Ocean Governance  
and the Agenda for Peace**

**The Proceedings of Pacem in Maribus XXIII  
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Editor: Elisabeth Mann Borgese

Assistant Editors:  
Madeleine Coffen-Smout  
Susan Ralston

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## PREFACE

Pacem in Maribus XXIII, we hope, has advanced current thinking on peace and the Law of the Sea in two ways.

First, it clarified the linkages between the Law of the Sea and ocean development on the one hand, and the Secretary-General's *Agenda for Peace* on the other. Based on the emerging new concept of "security" these linkages were elucidated in the "Background Paper" which was circulated in advance to all participants in the Conference and was to give cohesion and direction to the agenda as a whole. Surprisingly, these linkages have not been explored in any other forum.

The second important concept emerged from the Conference itself: the Conference papers included in this volume, the workshop discussions, and the "Conclusions and Recommendations" derived from them. And that is the convergence between the concept of "Zone of Peace" or "Zone of Peace and Cooperation" on the one hand and, on the other, the concept of "regional seas programmes" for the sustainable management of ocean resources. This, again, is based on the new concept of security, defined by the Peace Zone advocates as "human security" or "democratic security," on the one hand and, on the other, the growing recognition of the regional seas advocates that regional security is a prerequisite for the sustainable development of "regional seas."

"Democratic Security," as spelled out in the chapters by Ramon Lopez Reyes and Fabio Castillo, rests on "equity"; it implies equitable resource management; it requires a "participatory" system of decision-making; it implies the whole agenda of the regional seas programmes as they move "from Stockholm to Rio," from a sectoral approach limited to the protection of the environment, to a comprehensive approach, synthesizing Environment and Development concerns in the concept of sustainable development. And just like the Zone of Peace concept, the "sustainable management" concept is based on equity and requires a participatory system of decision-making, bottom-up. In two regions, at least—in the Eastern Caribbean and in the South Pacific—systems of joint surveillance and enforcement of regulations for the peaceful uses of the seas and oceans have been developed, with regional cooperation of naval forces for peaceful purposes.

Thus the convergence is almost complete. What is needed now is a simple mechanism to integrate elements already in place. In the Caribbean, these elements are:

- the Regional Seas Programme, which ought to take up, adapt, and develop, the progressive changes initiated in the Mediterranean with the recent amendments to the Barcelona Convention;
- the strong and well-developed movement towards making the Caribbean a Zone of Peace and Cooperation and including it in the Latin American Nuclear Weapons Free Zone; and
- the already operative system of joint surveillance and enforcement in the Eastern Caribbean.

In the South Pacific:

- the evolving Regional Seas Programme (SPREP);
- the Forum Fisheries Agency (FFA);
- the system for Mineral Resources exploration and development;
- the Nuclear Weapons Free Zone treaty; and
- the already operative joint system of surveillance and enforcement.

In the Conclusions and Recommendations we have suggested such an integrative mechanism, by way of illustration.

Since our deliberations on the Law of the Sea and the *Agenda for Peace* in Costa Rica, another important event has taken place and that is the however half-hearted Opinion of the International Court of Justice in favour of global denuclearization. “There exists an obligation,” the Judges said, “to pursue in good faith and bring to a conclusion negotiations leading to nuclear disarmament in all its aspects under strict and effective international control.” The integration of Regional Seas Programmes for the sustainable management of the peaceful uses of the seas and oceans with the growing number of Treaties for the establishment of nuclear weapons free zones and zones of peace would be a most important contribution to this effort. The Caribbean and the South Pacific clearly have the potential of leadership in this direction.

The timing indeed is auspicious. Ocean management and the development of the Law of the Sea are moving more directly into the limelight of public attention. 1998 has been declared by the United Nations as the Year of the Oceans. 1998 will also be the year of the final clarification of the legal status of the Law of the Sea Convention, with the final termination of “provisional membership.” In the year 2004—ten years after the entry into force of the Convention—a Review Conference may be called, to adjust to changes and incorporate new approaches.

If *Pacem in Maribus XXIII* has advanced a new trend of thought in this broader context, then the whole effort really was worth while.

Elisabeth Mann Borgese  
October 1996

## **PROLEGOMENA**

## MESSAGE

*Boutros Boutros-Ghali*

It gives me great pleasure to express my warmest greetings to the participants in this twenty-third conference of *Pacem in Maribus*. It is with particular pleasure that I extend this message since this year's conference will touch on two subjects that are of special importance—the Convention on the Law of the Sea and an *Agenda for Peace*.

In the past, and in fact to an earlier conference of *Pacem in Maribus*, I stressed that an important lesson of the United Nations Convention on the Law of the Sea was that the development of international law must contribute to the strengthening of peace, security, cooperation, and friendly relations among all nations. This is a necessity if we are to achieve global respect for and adherence to international law on the part of all States.

In the last two years we have made great strides in implementing the Convention as part of accepted international norms, binding on its Parties and exerting great influence on those States yet to ratify or accede to it. The United Nations is dedicated to the goal of universal acceptance and adherence to the Convention. This is a goal which should contribute greatly to the maintenance of international peace.

This session of *Pacem in Maribus* is being held on the eve of the signing of the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks. The Agreement, which is to be opened for signature tomorrow, on 3 December 1995, elaborates on the provisions of the Convention by spelling out the obligation of States to act individually, and to cooperate at the regional and international levels, to better manage and conserve a rapidly dwindling fisheries supply.

The implementation of the Agreement will greatly enhance international stability and prevent conflicts over fisheries resources. Most recently, we have seen that without international cooperation and compromise, such conflicts may once again pose a threat to stable and friendly relations among States.

In my *Agenda for Peace*, I touched on the principal cornerstones of the maintenance of international peace and security, including preventive diplomacy, peace-keeping and peacemaking. Of these main pillars of international peace, I cited preventive diplomacy as the “most desirable and efficient employment of diplomacy” in as much as it could prevent disputes from arising between parties, or prevent existing disputes from escalating into conflicts and to limit the spread of conflicts if and when they do occur.

The Convention on the Law of the Sea was framed with the same goal and belief in mind. Its authors expected, and time has proven them correct, that the progressive development of the law of the sea would contribute to the strengthening of peace, security, cooperation and friendly relations among all nations. In other words, the Convention is a most useful and significant instrument available to the international community in terms of preventive diplomacy.

The Agreement on the conservation and management of high seas fisheries is an example of how, given the necessary political will, the international community can build on the foundation laid out in the Convention and elaborate rules and regulations whose primary aim is the prevention of conflict.

I must stress, however, that the adoption of agreements or treaties, though a major manifestation of the international community's desire to further the goals of peace and stability, must be followed by a dedicated effort on the part of each individual State to respect and implement their obligations at the same time as it enjoys its rights and benefits.

Important elements of international peace are dialogue and understanding. Dialogue can be held at various levels, be it governmental or nongovernmental. In this respect the successive conferences of *Pacem in Maribus* have contributed to and will continue to contribute to the necessary dialogue and understanding required to build confidence and avoid conflicts.

I extend my best wishes to all the participants in this year's conference for a successful meeting.



## Prologue: The Oceans and the Culture of Peace

*Federico Mayor*

Throughout history, the oceans have been one of the main theatres of human conflict. The lure of domination and gain—the desire for power, territory and control of resources—have invariably been at the origin of such conflict. In an increasingly compact world where disparities of wealth and opportunity continue to grow, the risks of friction will be great unless we are successful in steering a new course in the direction of a “culture of peace.”

The culture of peace implies a change of mentalities. It presupposes attitudes of understanding and tolerance towards others, a greater readiness to share resources of all kinds, a more harmonious relationship with nature, a commitment to the force of reason rather than the logic of force, and the progressive establishment of forms of global governance which, in the words of Nelson Mandela, “ensure that people everywhere can live in an environment of democracy, peace and prosperity.”

It is in this context that the Law of the Sea Convention can be seen as a staging post on the route to a culture of peace. The Convention establishes a careful balance between the maritime rights and obligations of states and gives this arrangement the force of international law. It assigns to the care of coastal states over one third of total ocean space together with some 90 percent of living and non-living ocean resources, which should be conducive to their rational management and conservation. It treats in an integrated manner the various ocean issues (national security, economic interests, marine scientific research, protection of the marine environment, conservation of its resources, marine transportation, and capacity building), establishing a legal basis for the implementation of the ocean-related chapters of *Agenda 21*. More specifically, it provides for the peaceful use of the oceans and their resources as well as for the peaceful settlement of disputes among nations.

International co-operation for the peaceful use of the oceans may be seen as the leitmotif of the Convention. Its wide-ranging provisions include: comprehensive rights of navigation essential for international commerce; management by the International Seabed Authority of the deep seabed resources on behalf of humanity as a whole; the right of other states, particularly landlocked and geographically disadvantaged countries, to exploit the surplus fishery resources of coastal states; the obligation of all states to protect the marine environment from all forms of pollution; co-operation for the promotion and development of marine scientific research and systematic observation and for the development and transfer of marine technology; and mechanisms for the peaceful settlement of disputes. This internationally agreed set of measures represents a very significant step towards the goal of “peace in the oceans.”

Full attainment of this goal will obviously require the effective implementation of the Convention's inter-related provisions. This in turn will depend on how far adherence to the Convention is underpinned by a deeper commitment to international co-operation and dialogue. A lasting peace cannot be based exclusively upon the political and economic arrangements of governments. As observed in UNESCO's Constitution, “peace must ... be founded, if it is not to fail, upon the intellectual and moral solidarity of mankind.” It is the task of education, conceived in the broadest possible terms, to promote such a commitment based on knowledge and understanding. A culture of peace may be said to prevail when society at large is informed by the spirit of intellectual and moral solidarity—by an ethos of comprehension and co-operation—to which UNESCO's Constitution refers.

Through the works of its Intergovernmental Oceanographic Commission and through the wide range of its educational activities, UNESCO is committed to promoting the objective of peace in the oceans. In this connection, it warmly commends the *Pacem in Maribus* initiative, which has contributed significantly—through such concepts as the “Zone of Peace and Co-operation” and “Democratic Security”—to further reflection on the Law of the Sea in the context of the United Nation's *Agenda for Peace*. *Pacem in Maribus*, and its unflinching inspiration Elisabeth Mann Borgese, can count on UNESCO's continued support in an endeavour we see as

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complementary to our own efforts to nurture a culture of peace through international co-operation in education, science, culture, and communication.

**PEACE IN THE OCEANS:  
POTENTIAL CONTRIBUTIONS TO THE IMPLEMENTATION  
OF THE SECRETARY-GENERAL'S AGENDA FOR PEACE**  
*Background Paper*

*Elisabeth Mann Borgese*

**Introduction**

Although the Law of the Sea is not mentioned in the *Agenda for Peace*, it is the thesis of this paper that these contributions could be quite considerable, and that they have institutional implications for the restructuring of the United Nations.

The importance of the oceans, the Law of the Sea and ocean governance in this broader context is often underrated and frequently neglected. Considering that the oceans cover three-fourths of our planet, that a very large part of the global economy is ocean dependent, that the oceans are a determinant factor of the world's climate, and of international security, such an omission can have serious consequences.

The first part of this paper will summarize the main features of the *Agenda for Peace*; the second will show the interactions between the *Agenda for Peace* and the nascent system of ocean governance and seek ways in which they can reinforce each other.

***Summary of the Agenda for Peace***

The *Agenda for Peace* consists of a number of interactive elements or phases:

- preventive diplomacy;
- peacemaking;
- peace-keeping; and
- post-conflict peace-building.

Cooperation with regional arrangements and organizations is instrumental in the implementation of all phases. A special chapter is devoted to the safety of personnel; another to financing. Some general principles are emphasized in the conclusive chapter, entitled, as the Report as a whole, *An Agenda for Peace*.

On 21 February 1995, the Security Council was presented a Supplement, to bring developments surrounding the *Agenda* up to date.

*Preventive Diplomacy*, defined in the *Agenda* as "action to prevent disputes from arising between parties, to prevent existing disputes from escalating into conflicts and to limit the spread of the latter when they occur," should rely on "Measures to build confidence, such as a systematic exchange of military missions, the formation of regional or subregional risk reduction centres, arrangements for the free flow of information, including the monitoring of regional arms agreements." The Secretary General asks all regional organizations "to consider what further confidence-building measures might be applied in their areas and to inform the United Nations of the results..."

A second element of Preventive Diplomacy is Fact Finding. "Given the economic and social roots of many potential conflicts, the information needed by the United Nations now must encompass economic and social trends as well as political developments that may lead to dangerous tensions."

Thirdly, Preventive Diplomacy must rely on "Early Warning," concerning environmental threats, the risk of nuclear accident, natural disaster, mass movements of populations, the threat of famine and the spread

of disease.” Information must be synthesized with political indicators to assess whether a threat to peace exists and to analyze what action might be taken to alleviate the danger.

Regional arrangements and organizations have an important role in early warning. The Secretary-General asks regional organizations that have not yet sought observer status at the United Nations “to do so and to be linked, through appropriate arrangements, with the security mechanisms of this Organization.”

Fourthly, Preventive Diplomacy may resort to Preventive Deployment—on both sides or one side of a potential conflict, with due respect for the principle of national sovereignty and with the consent of the party or parties concerned.

Finally, Preventive Diplomacy may try to build on the establishment of Demilitarized Zones. “In the past, demilitarized zones have been established by agreement of the parties at the conclusion of a conflict. In addition to the deployment of United Nations personnel in such zones as part of peace-keeping operations, consideration should now be given to the usefulness of such zones as a form of preventive deployment, on both sides of a border, with the agreement of the two parties, as a means of separating potential belligerents, or on one side of the line, at the request of one party, for the purpose of removing any pretext for attack.” Demilitarized zones would serve “as symbols of the international community’s concern that conflict be prevented.”

The next phase, *peacemaking*, may be continuous, or even simultaneous, with the previous one. It relies on methods for the peaceful settlement of international disputes. In this context, the Report mentions the Manila Declaration of 1982 on the Peaceful Settlement of International Disputes and the 1988 Declaration on the Prevention and Removal of Disputes and Situations Which May Threaten International Peace and Security and on the Role of the United Nations in this Field. A major role, of course, should be assigned to the International Court of Justice. “The docket of the International Court of Justice (ICJ) has grown fuller, but it remains an under-used resource for the peaceful adjudication of disputes. Greater reliance on the Court would be an important contribution to the United Nations peacemaking. In this connection, I call attention to the power of the Security Council under Articles 36 and 37 of the Charter to recommend to Member States the submission of a dispute to the International Court of Justice, arbitration or other dispute settlement mechanism. I recommend that the Secretary-General be authorized, pursuant to article 96, paragraph 2, of the Charter, to take advantage of the advisory competence of the Court and that other United Nations organs that already enjoy such authorization turn to the Court more frequently for advisory opinions.” The Secretary-General recommends the following steps to reinforce the role of the ICJ:

- (a) All Member States should accept the general jurisdiction of the ICJ under Article 36 of its Statute, without any reservation, before the end of the United Nations Decade of International Law in the year 2000. In instances where domestic structures prevent this, States should agree bilaterally or multilaterally to a comprehensive list of matters they are willing to submit to the Court and should withdraw their reservation to its jurisdiction in the dispute settlement clause of multilateral treaties;
- (b) When submission of a dispute to the full Court is not practical, the Chambers jurisdiction should be used;
- (c) States should support the Trust Fund established to assist countries unable to afford the cost involved in bringing a dispute to the Court, and such countries should take full advantage of the Fund in order to resolve their disputes.

Other sections of the Peacemaking Chapter deal with Personnel, Sanctions and Special Economic Problems, the Use of Military Force, and Peace-Enforcement Units, all overlapping with the sections of the

following Chapter, devoted to *peace-keeping*, with its sections on “Increasing Demands,” “New Departures in Peace-keeping,” “Personnel,” and “Logistics.”

The “Personnel” section stresses that “increasingly, peace-keeping requires that civilian political officers, human rights monitors, electoral officials, refugee and humanitarian aid specialists and police play as central a role as the military.”

On “Logistics” the Report requests “Member States in a position to do so should make air-and sea-lift capacity available to the United Nations free of cost or at lower than commercial rates, as was the practice until recently.”

*Post-conflict peace-building* may take the form of “concrete cooperative projects which link two or more countries in a mutually beneficial undertaking that can not only contribute to economic and social development but also enhance the confidence that is so fundamental to peace.” The Secretary-General had in mind, “for example, projects that bring States together to develop agriculture, improve transportation or utilize resources such as water or electricity that they need to share, or joint programmes through which barriers between nations are brought down by means of freer travel, cultural exchanges and mutually beneficial youth and educational projects.” Reducing hostile perceptions through educational exchanges and curriculum reform may be essential to forestall a re-emergence of cultural and national tensions...” Support for the transformation of deficient national structures and capabilities, and for the strengthening of new democratic institutions is also recommended.

The importance of cooperation with regional arrangements and organizations is stressed throughout. The Report points out that “The Charter deliberately provides no precise definition of regional arrangements and agencies thus allowing useful flexibility for undertakings by a group of States to deal with a matter appropriate for regional action which also could contribute to the maintenance of international peace and security. Such associations or entities could include treaty-based organizations, whether created before or after the founding of the United Nations, regional organizations for mutual security and defence, organizations for general regional development or for cooperation on a particular economic topic or function, and groups created to deal with a specific political economic or social issue of current concern.”

It is clear, however, the Report states, “that regional arrangements or agencies in many cases possess a potential that should be utilized in serving the functions covered in this report: Preventive diplomacy, peace-keeping, peacemaking and post-conflict peace-building. Under the Charter, the Security Council has and will continue to have primary responsibility for maintaining international peace and security but regional action as a matter of decentralization, delegation, and cooperation with United Nations efforts could not only lighten the burden of the Council but also contribute to a deeper sense of participation, consensus and democratization in international affairs.”

Finally, one might cite some important recognitions contained in the concluding chapter, “An Agenda for Peace.” “The social stability needed for productive growth,” the Report states, “is nurtured by conditions in which people can readily express their will. For this, strong domestic institutions for participation are essential. Promoting such institutions means promoting the empowerment of the unorganized, the poor, the marginalized. To this end, the focus of the United Nations should be on the ‘field,’ the locations where economic, social, and political decisions take effect.”

Second, and reflecting the general recognition that the international community no longer consists exclusively of States, but includes a variety and increasing number of non-State actors, the Report reminds us that “Peace in the largest sense cannot be accomplished by the United Nations system or by Governments alone. Non-governmental organizations, academic institutions, parliamentarians, business and professional communities, the media and the public at large must all be involved.”

A call for innovative approaches is implicit in the final recognition that “We must be guided not by precedents alone, however wise these may be, but by the needs of the future and by the shape and content that we wish to give it.”

The most important aspects of this Report perhaps are:

- (a) The recognition of the changed concept of “security” with its economic and environmental dimensions (although environmental considerations are mentioned only once, in the context of “Early Warning Systems”). Different dimensions may prevail during different phases of the process: Conflict Prevention—“preventive diplomacy” and “peacemaking” will put more emphasis on removing the causes of conflict, which will have to be sought in the economic or environmental sphere; “peace-keeping” will rely more on the military, although social and humanitarian aspects will be also important; “peace building,” again, will require action in the social/economic and environmental spheres.
- (b) Equally significant—and related to the “comprehensive” concept of “security”—in the *Agenda for Peace* is the flexibly decentralized nature of peace-keeping and peace building, under the authority of the Secretary-General, but, as the case may be, in cooperation with regional arrangements. The *Agenda for Peace* corroborates the current understanding of the “permeability of boundaries,” whether between global, regional, and national responsibilities or between disciplines and departments (economic development, environmental conservation, military security).

The daily acts of violence and terrorism we are witnessing both in developing and developed countries dramatically demonstrate the changed nature of the problem of “security.” What we are living (or dying) through, today, is in fact nothing less than World War III: not a war fought between nations or superpowers, but one waged by a combination of poverty and despair, fanaticism and the insanity of deranged minds. That this is nothing less than war—World War III—was recognized by President Clinton when he declared that the Oklahoma bombing was “an attack on the United States.” It is also recognized, e.g., by the legislative reform in 1990 in France which makes those killed or wounded in terrorist attacks officially victims of war which affords victims of terrorism specialized treatment in military hospitals for wounds that often are similar to those suffered on a battlefield. Victims of terrorism in France also have access to veterans’ benefits, and the state becomes responsible for the children of people killed in terrorist acts. As the Secretary-General put it (Address to the 25th Vienna Seminar on 2 March 1995), “Most of today’s conflicts take place within states. They are fought not only by armies but also by irregular forces. Civilians are the main victims. Humanitarian emergencies are common place. State institutions often have collapsed.”

Two main questions arise in conjunction with the *Agenda’s* implementation:

- (a) In the unbalanced world in which we live since the end of the Cold War, there is always the danger that the Security Council becomes a tool of the foreign policy of the one remaining superpower and its allies. Concepts like “preventive diplomacy” may become instruments of intervention in the internal affairs of “hostile” States. This, at least, is the perception of some countries, especially developing countries.
- (b) The second question arises from the fact, that, since the end of the Cold War, the focus of conflict has shifted from the political/military to the economic/technological plane. As one author put it (Silviu Brucan, personal communication), “...for the time being, it is the world market that is the main battlefield; success in the world power game is now measured with the yardstick of market share rather than that of territorial conquest or the number of bombs and rockets...”

While the *Agenda* is evidently aware of the political/economic interaction, some authors feel it does not do full justice to the gravity of the implications of this shift. Both questions point to the conclusion that the *Agenda*

can be successfully implemented only in a more balanced international system, including a restructured Security Council in a restructured United Nations.

### ***Potential Contributions of Ocean Governance and the Law of the Sea***

It is as a matter of fact quite remarkable that, in the entire Report, there is no mention of the Law of the Sea. At all levels, and in all dimensions, Law of the Sea developments can make major contributions—as emphasized already in the Preamble to the United Nations Convention on the Law of the Sea, “Prompted by the desire to settle, in a spirit of mutual understanding and cooperation, all issues relating to the law of the sea and aware of the historic significance of this Convention as an important contribution to the maintenance of peace, justice and progress for all peoples of the world.” The Preamble also expresses the belief “that the codification and progressive development of the law of the sea achieved in this Convention will contribute to the strengthening of peace, security, co-operation and friendly relations among all nations...”

### ***The Agenda for Peace: Economic Security***

Considering the size of the marine-related economy, it is amazing that it is simply ignored even in the best and most thoughtful discussions of Governance in the 21st century. Three aspects will be dealt with in this paper.

1. The largest industries in the world today are tourism and trade. The growth rate of tourism is phenomenal. In Europe alone, tourism is expected to grow by 38 percent over the next ten years, reaching a total value of \$2.26 trillion by the year 2005 (World Travel and Tourism Council, as reported by the *Herald Tribune*, 6 April 1995). Employment in the industry is expected to rise to 21 million people, up from the current work force of 19.4 million. Globally, the number of tourists reached 481,536,000 in 1992 and has surpassed the half-billion mark since then; tourist receipts amounted to about 2 trillion dollars in 1992 and have gone up since. Considering the importance of cruise ships, of sport fishing, sailing, surfing, swimming and sun-bathing, eco-tourism and the supporting industries of these activities, one might assume that at least one-third of this tourism is ocean-dependent, although the exact figure is hard to ascertain from available statistics. In the Mediterranean countries, the number of tourists is expected to rise to 300 million a year during that period. The figures for world trade are even more staggering. Of the total value of 3.78 trillion dollars in 1992, about 70 percent is ship-borne, and therefore ocean-dependent. The figures, in terms of contribution to GNP, may have to be revised in the light of contemporary innovative economic theories and environmental accounting, but they are nevertheless significant.
2. Relatively less important, but still important enough, is the contribution to development of living and nonliving resources. Tables 1 and 2 give the most recent statistics on the production of living and nonliving resources. It should be added that the Convention's emphasis on the satisfaction of the nutritional needs of coastal States, reinforced by Chapter 17 of *Agenda 21*, could make a significant contribution to the food security, particularly of poorer countries. It will also be noted that over 15 percent of the world's fisheries now is produced by aquaculture, including mariculture and that this production is growing at the rate of 6 percent per annum. This development, of course, is predicated on effective coastal management, including the regulation of competing uses of marine and coastal space as well as of water quality: all reinforced by Chapter 17 of *Agenda 21*.

**Table 1: Marine Fisheries - Annual Catch, 1989-91, Yield and Estimated Potential**  
(all figures in million metric tons)

	Marine Fish		Cephalopods and Crustaceans		Total	
	Annual Catch	Potential	Annual Catch	Potential	Annual Catch	Potential
Atlantic Ocean	18.3	25.5-33.3	1.9	2.7-3.9	20.2	28.2-37.2
Pacific Ocean	45.0	31.0-45.1	3.3	3.1-4.4	48.3	34.- 49.5
Indian Ocean	5.4	4.7-7.1	0.6	0.6-0.9	6.0	5.3-8.0
Mediterranean & Black Seas	1.2	1.1-1.4	0.2	0.2	1.4	1.2-1.6
Antarctic	0.1	NA	0.3	NA	0.4	NA
Arctic	0.0	NA	0.0	NA	0.0	NA
World	69.9	62.3-86.9	6.2	6.5-9.3	76.1	68.8-96.2

Source: *World Resources 1994-95*, Oxford University Press, 1994.

As far as nonliving resources are concerned, the marine sector is presently under-utilized. This is due to structural changes in contemporary industries which are far less resource intensive than their predecessors in past phases of the industrial revolution. Recycling and the availability of synthetics, on the one hand, miniaturization on the other, as well as the shift to the "service economy," have left land-based mineral resources under-used and have made it uneconomical to invest in new, marine-based industries. It is nevertheless quite possible that competing land uses, environmental considerations, as well as proximity to ship-borne transport and trade, will encourage a shift from land-based to ocean-based mineral production during the next century. It should also be noted that any future growth of the hydrocarbon industry, particularly in view of the economic growth of developing countries, whether in the energy or the petrochemical sector, will come from the offshore, where most of the proven reserves are located. Taking into account environmental constraints, the production of offshore gas and, next century, the generation of energy from waves, tides, currents, winds, temperature and salinity differentials, may considerably reduce the import bills of coastal and island developing countries and contribute to their economic security.

Many of the living and nonliving resources of the oceans, as well as the ocean environment as a whole, are *shared resources*, which, as the Report points out, may be a source of conflict. Joint management regimes, whether bilateral or multilateral, in "joint development zones" or "management zones," as they emerge ever more frequently, especially in cases of boundary conflicts and overlapping jurisdictional claims, are a contribution to the *Agenda for Peace*. They could also be developed as "demilitarized zones" as proposed in the *Agenda for Peace* (Preventive Diplomacy chapter).<sup>1</sup>

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<sup>1</sup> There have been numerous political efforts at conflict avoidance and peace-building, through promoting a negotiated joint development zone in the Spratly Islands. Yet the conflicting situation continues (the latest being between the Philippines and China, February/March 1995). A joint development zone, or joint management zone holds the best promise for a solution of the problem.



**Table 2: Coastal Resources—Offshore Oil and Gas**

	Annual Production				Proven Reserves	
	Oil (million tons)		Gas (million cubic metres)		Oil (billion tons)	Gas (trillion cubic metres)
	1982	1992	1982	1992	1992	1992
Africa	63.8	117.7	6.1	2.1	3.5	4.0
Asia	229.4	309.3	19.5	73.7	18.8	6.8
Oceania	17.8	25.0	7.4	20.0	0.3	0.9
North & Central America	143.6	128.4	156.5	120.6	6.7	3.7
South America	61.2	73.4	1.1	13.2	1.7	1.0
Europe	132.8	181.3	87.3	117.2	5.2	5.0
USSR(former)	8.8	30.9	14.7	10.4	0.3	-
World	657.4	866.0	292.6	357.2	36.5	21.4

Source: World Resources, 1994.

**Table 3: Coastal Resources - Shipping 1988-90 (million metric tons)**

	Average Annual Volume of Goods Loaded & Unloaded, 1988-90		
	Crude Petroleum	Petroleum Products	Dry Cargo
Africa	382.5	44.3	285.7
Asia	947.2	285.7	1,392.6
Oceania	14.4	12.0	286.6
North and Central America	370.4	151.2	800.7
South America	111.6	41.0	302.1
Europe	562.0	296.8	1,302.5
USSR (former)	69.9	51.2	123.0
World	2,458.0	903.0	4,493.2

3. The third, and perhaps most important contribution of ocean development to the economic security of States, is education and the development of human resources. The awareness, maturing during the 'eighties, that the benefits to be derived from the Law of the Sea Convention, including the acquisition of vast, resource-rich ocean spaces in the EEZ and the continental shelf, can only be realized by skilled human resources and scientific and technological capacity, have given a significant impulse to training and education. Many programmes are interdisciplinary, including considerations of the Law of the Sea and emergent forms of ocean governance as well as information technology and the other high technologies involved in ocean management and development. The development of human resources constitutes a vitally important contribution to economic security.

*The Agenda for Peace: Environmental Security*

The potential contribution of the Law of the Sea Convention to environmental security cannot be overrated. As we have stressed in past PIM conferences, Part XII of the Convention contains the only existing, comprehensive, binding international environmental law, covering pollution from all sources, whether land-based, oceanic or atmospheric. It also provides a comprehensive, binding system for the peaceful settlement of environmental issues, as well as enforcement mechanisms, dividing enforcement responsibilities between port states, coastal states and flag states. The Regional Seas Programmes, emanating from the Stockholm Conference on the Human Environment, relied heavily on the universal law emerging in the nascent Part XII of the Law of the Sea Convention and would be unthinkable without it; if it was UNEP's most successful undertaking this was because it could build within the solid framework of that Convention. Other sectors of environmental programmes did not enjoy this advantage. *Agenda 21* is a non-enforceable "soft law" instrument, with the exception of Chapter 17, dealing with the seas and oceans, which interprets, fleshes out, develops and advances the Convention, which, in turn provides a legal framework, enforcement mechanisms, and a dispute settlement system, thus moving it from "soft law" in the direction of conventional international law. Implementing Chapter 17 of *Agenda 21* means implementing the Law of the Sea Convention. Implementing the Law of the Sea Convention means implementing Chapter 17.

At the same time, *Agenda 21*, covering all economic/environmental activities, whether at sea, on land, or in the atmosphere, now links the Law of the Sea and ocean governance to the rest of the global system which it is bound to affect, for, if part of a system is changed, the whole system changes.

The changes required in the Regional Seas Programme, to bring them forward "from Stockholm to post-Rio," from a sectoral approach to environmental protection to an integrated approach enhancing both economic development and the conservation of the environment, both social and natural, have been dealt with by the International Ocean Institute on previous occasions (*Ocean Governance and the United Nations*, Halifax: Centre for Foreign Policy Studies, 1995; "Revising the Barcelona Convention," paper presented at the ICCOPS, Genoa, April 1995). Here only three aspects will be singled out, which could have a direct impact on environmental security.

The first would be the establishment, within the framework of the Regional Seas Programmes, of *Regional Commissions for Sustainable Development*. It is clear that a revised, broadened mandate, covering development as well as environment, will require a stronger institutional framework and, in particular, the establishment of an *executive body*, to supervise the implementation of programmes and take decisions between the bi-annual Meetings of States Parties, which, we suggested, should be broadened into some sort of regional "ocean assembly," where not only Governments but the nongovernmental sector, science, industry, and regional organizations such as regional economic commissions and development banks should be represented. We have proposed to conceive the executive body, to be elected by the regional "ocean assembly," as a *Regional Commission for Sustainable Development and Comprehensive Security*. In the Mediterranean, a proposal (by the Delegation of Malta) for the establishment of a Mediterranean Commission for Sustainable Development is already on the table of the States parties to the Barcelona Convention. In the institutionally flexible context of the Regional Seas Programmes, and on the basis of the recognition that "sustainable development," integrating development and environment concerns and predicated on peace and "comprehensive security," including military, economic and environmental security, are, in the final analysis, identical goals, the mandate of the Regional Commissions should be broad enough to encompass both. The establishment of such Regional Commissions, within the existing framework of the Regional Seas Programmes, would constitute a significant contribution to the Secretary-General's *Agenda for Peace*.

The second contribution to environmental security could be the denuclearization of regional seas, as pioneered by the Treaties of Tlatelolco and Raratonga. This would follow from interpreting, and progressively developing, the concept of "Reservation for Peaceful Purposes" which, in the Law of the Sea Convention, is seminal, but undeveloped. Jens Evensen, formerly Judge at the International Court of Justice, advocates this

view. In a paper, "The Law of the Sea Regime" (*The Denuclearization of the Oceans*, R.B. Byers, ed., London and Sydney: Croom Helm, 1986) Evensen goes as far as to assert that the deployment of cruise missiles violates the provisions contained in the Law of the Sea Convention, including the general principles that the oceans shall be used exclusively for peaceful purposes. He also draws attention to Part IX of the Convention, containing the very succinct provisions concerning enclosed or semi-enclosed seas. "States bordering an enclosed or semi-enclosed sea should co-operate with each other in the exercise of their rights and in the performance of their duties under this Convention." This, he suggests, implies that such states have special rights and obligations to formulate policies with regard to the peaceful development in their enclosed or semi-enclosed seas. "The establishment of zones of peace, nuclear-weapons free zones and other peace-related activities in the area, such as safe havens for home fleets in certain maritime areas, special procedures for the commencement of naval manoeuvres and the like, would be examples." Such initiatives, clearly contributing to the confidence-building measures proposed by the *Agenda for Peace*, have been proposed for the Baltic and the Caribbean. "These possibilities should be further explored."

While he admits that the Law of the Sea Convention "does not directly address the denuclearization of the oceans or related arms limitation issues," he concludes that "the Convention further codifies the principles which underlie the peaceful uses of ocean space. *As such the Convention could serve as a legal basis for more directly addressing the issue of nuclear weapons at sea.*"

The Declaration on the Indian Ocean as a Zone of Peace, the Treaty of Tlatelolco establishing a Latin American Nuclear-Free Zone (LANFZ), and the Treaty of Raratonga, with its Protocols, have been promising beginnings in enhancing both military and environmental security. The Tlatelolco Treaty, however, while at least discouraging if not prohibiting the testing of nuclear weapons systems and nuclear weapons training, does not restrict deployment of nuclear ships or vessels carrying nuclear arms. "Naval operations in the zone by parties to the Protocols to the Treaty can include the transit of nuclear weapons in the region. France, the Soviet Union and the United States have stated that their right to unimpeded operation on the high seas, including the waters within the LANFZ, cannot be restricted." (William Arkin et al., in Byers, op.cit.)

It is to be hoped that other regional arrangements will follow these pioneering achievements. The concept of the reservation of the seabed and the high seas for peaceful purposes, established by the Law of the Sea Convention, should provide a legal basis for such a development. *Pacem in Maribus* has repeatedly included in its recommendations that this subject should be studied by bodies such as the International Law Commission, but thus far, there has been no follow-up.

The third contribution arises from the need for joint regional surveillance and enforcement. It was first realized in regional seas containing small, mostly poor, developing island States, incapable, individually, of surveying vast ocean spaces now under their jurisdiction and responsibility. Jointly, however, they could do what none of them would have been able to do individually. A first comprehensive study on multi-purpose joint regional surveillance and enforcement was undertaken by the Commonwealth Secretariat for the Solomon Islands during the 1970s. Among the Pacific Islands, in fact, as well as in the Eastern Caribbean, encouraging progress has been made in the establishment of such systems. They should, in the future, come under the command of the Regional Commissions for Sustainable Development, which should have a High-Level Segment, attended, for this purpose, by the Ministers of Defence of States Parties. Appropriate linkages should be established between these Regional Commissions and the joint operations of their navies and coastguards for peaceful purposes, and the Secretary-General's global security system (Security Council: Joint Staff Committee; standing armed forces, including a naval command).

More recently, the need for regional joint surveillance and enforcement has emerged as the only available alternative to the unilateral expansion of national claims beyond the 200 mile limit of the Exclusive Economic Zone. The Draft Convention on Straddling Stocks and Highly Migratory Stocks is emphasizing regional cooperation for the purpose of surveillance and the enforcement of inevitable fisheries conservation measures in the High Seas. This would be in accordance with the UN Convention on the Law of the Sea and

a contribution to its further evolution. It also would be a major contribution to the enhancement of environmental and resource security.<sup>2</sup>

*The Agenda for Peace: Military Security*

The same arrangement for regional cooperation of navies, under the aegis of the Ministers of Defence working through the Regional Commission for Sustainable Development and Comprehensive Security, could serve the purpose of UN *peace-keeping*, in case of armed conflict requiring military responses, through the appropriate chain of command under the Secretary-General of the United Nations.

In the absence of armed conflict, naval regional cooperation could extend to *peaceful humanitarian activities* such as search and rescue, disaster relief, or hydrological surveys, mapping and other forms of oceanographic research. In its Report, *Uncommon Opportunities*, the International Commission on Peace and Food (London and New Jersey: ZED Books, 1994) elaborated on the peaceful activities of armies and their potential contribution to the *Agenda for Peace*. "There are significant precedents for the utilization of the military to support the environment and development—for construction of roads in Ethiopia and Yemen, bridges in Guatemala, as well as harbours, canals, railways and airfields; for afforestation projects and monitoring wildlife in India; for training of mechanics, electricians, and other productive skills; for urban renewal projects and drug enforcement in the United States, harvesting of crops in the USSR, flood rescue operations in Bangladesh, nuclear clean-up at Chernobyl, damage limitation after the vast oil spills and oil fires in Kuwait, humanitarian relief for Kurdish refugees, distribution of food and medicine in Bosnia, and a host of other activities." There is no reason why the same potential should not exist among navies, especially in recognition of the "dual-purpose" character of much of their existing equipment.

In a paper presented at *Pacem in Maribus XX* (Lisbon, 1992), Joseph P. Morgan lists warships that could usefully be employed for peaceful purposes. "All the amphibious ships have characteristics useful for disaster relief operations," he points out. Some of the amphibious assault ships of the US Navy, for example, "have extensive medical facilities on board, including operating rooms, x-ray rooms, a hospital ward, an isolation ward, laboratories and a pharmacy." The equipment of the two large US Navy hospital ships is even more impressive. "They are equipped with 1,000 patient beds, 12 operating theatres, laboratories, pharmacies, dental, radiation, and optometry departments, and burn care, radiological and physical therapy departments." It is easy to envision, Morgan concludes, "the valuable humanitarian role the ships could play in natural disaster, epidemics and other events requiring medical help."

Auxiliary ships, designed to carry various types of cargo in support of combat vessels, could use their capacity for quick loading and offloading, on land and at sea, for the rapid delivery of essential food, fuel, and other supplies in disaster relief operations.

Anti-submarine warfare technologies and technologies for the exploration of the deep ocean and seabed are closely related; mine warfare ships, with their winches and booms, are suitable for handling large oceanographic sampling devices.

Undoubtedly, arrangements for regional cooperation among such ships could "make sea-lift capacity available to the United Nations" as requested in the *Agenda*.

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<sup>2</sup> One might mention, in particular, the effective evolution of the South Pacific Forum Fisheries Agency in the regional regulation of access to fisheries in their Exclusive Economic Zones and Continental Shelves, thus avoiding the continuation of conflict with the United States and other Distant-water Fishing Nations.

*Agenda for Peace: Peace-making and Peaceful Settlement of Disputes; Peace-building*

The peaceful settlement of disputes, in the *Agenda*, is an essential part of *Peace-making*, and it is indeed surprising that the Law of the Sea Convention is not mentioned in this context, for all the Secretary-General's suggestions are already embodied in that Convention, which sets the precedent in international law for their realization. He suggests that "All Member States should accept the general jurisdiction of the ICJ...without any reservation." Under the Law of the Sea Convention, all States Parties, while signing, ratifying, or acceding to the Convention accept *eo ipso*, and with a minimum of reservations (boundary disputes, disputes involving the military; disputes already under the jurisdiction of the Security Council, Article 298). The Secretary-General suggests that "When submission of a dispute to the full Court is not practical, the Chambers jurisdiction should be used." This is provided for in Article 188 of the Law of the Sea Convention.

The Secretary-General recommends that "States should support the Trust Fund established to assist countries unable to afford the cost involved in bringing a dispute to the Court, and such countries should take full advantage of the Fund in order to resolve their disputes." On this one point, the United Nations is ahead of the Law of the Sea! One might suggest that this Fund could also be used to assist countries with the cost involved in bringing them to the International Tribunal for the Law of the Sea.

The dispute settlement system of the Law of the Sea Convention, articulated in Part XV and Annexes V-VIII of the Convention, has indeed been hailed as one of the highest achievements of the Convention. Its potential contribution to *Peace-making*, in the terms of the *Agenda*, is quite considerable.<sup>3</sup>

Finally, the Law of the Sea Convention provides a legal and institutional framework for the kind of "concrete cooperative projects which link two or more countries in a mutually beneficial undertaking that can not only contribute to economic and social development but also enhance the confidence that is so fundamental to peace."

The proper utilization of the International Sea-bed Authority, at this time when commercial seabed mining has receded into a rather indeterminate future, already includes educational projects, exchange of information on high technologies and cooperative projects among Pioneer Investors in environmental impact assessment and technology development. It is to be hoped that such activities will be more fully developed as the fledgling Sea-bed Authority moves through its "evolutionary approach." Most deep-sea technologies, as was pointed out, are dual-purpose technologies, serving peaceful as well as military purposes. International cooperation thus has a strong confidence-building dimension.

The regional centres to advance the marine sciences and technologies, whose establishment is mandated in Articles 276 and 277 of the Convention, could serve a similar cultural, economic and confidence-building purpose. Regional cooperation in aquaculture development, shipping, water and energy management, tourism, especially cultural and eco-tourism, marine archeology, should all be covered by the enlarged Regional Seas mandate. They all belong in the category of projects described by the Secretary-General as "*peace-building*."

The "participational structures" at the local level, "the locations where economic, social, and political decisions take effect," are pioneered by *Agenda 21* and its concepts of "integrated coastal and marine management." This is to bring together local government, nongovernmental organizations, academic institutions, parliamentarians, business and professional communities, the media and the public at large, and

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<sup>3</sup> The role of the ICJ and the arbitral tribunals in settling disputes concerning the law of the sea and maritime boundary has been extremely positive. In some cases pending before it, the ICJ had suggested to the parties to negotiate an equitable and durable solution to the conflict, which led to a successful conclusion (e.g., Finland v. Denmark, concerning the height of the bridge over the Great Belt Strait—discontinued since 10 September 1992; Guinea-Bissau v. Senegal, concerning the maritime boundary in the EEZ: Agreement of 14 October 1993). As these cases suggest, the objective of conflict prevention and peace-building should be kept flexible.

involve them in the decision-making process. Democratization, decentralization, “the empowerment of the unorganized, the poor, the marginalized,” are all on the *Agenda for Peace* as well as on the *Agenda 21*, the agenda for ocean governance and the progressive development of the Law of the Sea. These linkages ought to be taken into consideration; they ought to be utilized so that each process complements and reinforces the other in the huge effort that is needed to restructure our global order for the next millennium.

## EXECUTIVE SUMMARY

Pacem in Maribus XXIII took place in Puntarenas, Costa Rica, on 3-7 December 1995. There were 90 participants from 28 countries. The theme of the conference, in celebration of the 50th anniversary of the United Nations, was "Oceans and Peace: Potential contributions of ocean governance to the implementation of the Secretary-General's *Agenda for Peace*."

The 30 Recommendations adopted by Pacem in Maribus XXIII are based on some fundamental recognitions:

First, and most obviously, the oceans cover three-quarters of our planet, are a crucial factor in the global economy and the health of the biosphere.

Second, the United Nations Convention on the Law of the Sea, covering the *peaceful uses of the seas and oceans* and reserving the oceans *for peaceful purposes* based on the principle of the *Common Heritage of Mankind*, offers new opportunities for peace making and peace keeping while enhancing economic and environmental security.

Third, the threats to *peace* and *security* have radically changed during the past half century, since the end of World War II. They are social, economic, and environmental rather than military; they are intrastate rather than interstate. Thus our concept of "security" has changed. It is now "comprehensive security," "human security" or "democratic security." It contains an economic and social dimension as well as an environmental dimension, together with the political/military dimension. Peace is a universal concept which is not attainable unless harmony—not only in the social sense as between individuals but also in the larger sense as between humans, animals and plants—is attained;

Fourth, there thus is a convergence between the emerging systems for the peaceful uses of the oceans for sustainable development, and for peace making, peace keeping, and peace building, especially at the regional level where regional seas programmes for sustainable development and maritime zones of peace may eventually coincide. Regional cooperation of navies for peaceful purposes, including joint surveillance and enforcement of regulations on peaceful uses and humanitarian operations may equally serve to safeguard regional security under the aegis of a United Nations *Agenda for Peace*.

Fifth, this convergence suggests the desirability of a "shift of paradigm" to reorient naval strategic thinking, where unrestricted Grotian freedom of the seas for warships is no longer taken for granted and there is a growing recognition that the Laws of Naval Warfare adopted at The Hague in 1907, long before the advent of sea-launched weapons of mass destruction, naval air power and advanced submarines, are virtually obsolete; that regulation of the military uses of the sea must be subordinated to the regulation of its peaceful uses; that the concept of the geopolitics of maritime security is changing from a global to a regional focus, with the exercise of sea-power in foreign policy increasingly being conducted in a regional setting.

The *Recommendations*, based on these recognitions, are partly *institutional*, suggesting guidelines for forms of governance, at local, national, regional, and global levels integrating peaceful uses and peacekeeping at sea; partly they are *political*, suggesting, *inter alia*,

- the adoption of a resolution by the General Assembly on the peaceful uses of the oceans which should include criteria of responsible use of the oceans by naval ships and aircraft, including the duty to compensate for environmental damage and economic loss;

- negotiations leading to the termination of the exemption from compulsory dispute settlement involving naval activities in the oceans as embodied in the 1982 Convention;
- harmonization of the Convention on the Prohibition of the Emplacement of Nuclear Weapons and Other Weapons of Mass Destruction on the Seabed (Seabed Treaty, 1971) and the 1982 Law of the Sea Convention, by the next Review Conference of the Seabed Treaty;
- a review of interpretations of Article 51 of the Charter of the United Nations, as it applies to claims of self-defense and its relations to the prohibition of the threat or use of force;
- a study to review and revise the 1907 Hague Laws for naval warfare in the light of contemporary technological, environmental and political developments;
- a study on the concept of Zones of Peace;

and, finally, in order to link the common heritage with our common future, it was suggested that the large majority of the world's nations seeking an end to the threat of nuclear annihilation should seek to achieve a Nuclear Weapons Convention by the year 2000 that eliminates all nuclear weapons in a time-bound framework. The prohibition and conversion of strategic ballistic missile submarines must be part of this accord. Perhaps this will be the final step in achieving a nuclear weapons free world, including Nuclear Weapons Free Oceans.



## CONCLUSIONS AND RECOMMENDATIONS

*Noting* that the United Nations Convention on the Law of the Sea, 1982, proclaims its awareness “of the historic significance of this Convention as an important contribution to the maintenance of peace, justice and progress for all peoples of the world;” that the codification and progressive development of the law of the sea achieved in this Convention “will contribute to the strengthening of peace, security, co-operation and friendly relations among all nations...” and that the oceans, covering three-fourths of our planet, are the Common Heritage of Mankind, and are “reserved for peaceful purposes”;

*Convinced* that, therefore, this Convention, and subsequent ocean-related developments could make a major contribution to the implementation of the United Nations *Agenda for Peace*, 1992;

*Believing* that *peace* is a universal concept which is not attainable unless harmony—not only in the social sense as between individuals but also in the larger sense as between humans, animals and plants—is attained;

*Recalling* that important developments have taken place with regard to the concept of the “*Zone of Peace*,” and that a comprehensive *Zone of Peace* practice now includes external peace among States and internal peace between government and peoples and among peoples;

### *Cognizant*

that a “shift of paradigm” to reorient naval strategic thinking is desirable and beginning to take shape in some countries;

that, in the new paradigm, unrestricted Grotian freedom of the seas for warships is no longer taken for granted;

that the Laws of Naval Warfare, adopted at the Hague in 1907, long before the advent of sea-launched weapons of mass destruction, naval air power and advanced submarines, are virtually obsolete;

that, on the other hand, naval and maritime air and infrastructure capabilities can provide an important operational and technical contribution to integrated maritime enforcement in all fields of marine activity including the management of marine resources, the maintenance of territorial integrity, the protection and preservation of the marine environment, the prevention of illegal activities, and the safe conduct of shipping and the safety of life at sea;

### *Cognizant also*

that a shift of the focus of naval and maritime activities of some of the world's navies is taking place towards the policing or constabulary role at national, subregional and regional levels, rather than the traditional military uses of the sea at the global level;

that the concept of the geopolitics of maritime security is changing from a global to a regional focus, with the exercise of sea-power in foreign policy increasingly being conducted in a regional setting;

*Aware* that the concept of *security* has, in recent decades, undergone fundamental transformations and now connotes security of people, including the security of their human rights, not just security of nations or territory; security through development, not security through arms; and security of the environment as a precondition for human security;

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*Conscious* that the foundation of *Sustainable Development* is to be sought in ethics, ecological integrity and empowerment and participation, human security and peace;

*Recognizing*, therefore, a new convergence between the concept of the *Peaceful uses of Regional Seas for Sustainable Development* and the concept of *Maritime Zones of Peace* entailing clear institutional requirements and generating potentials for major contributions to the implementation of the *Agenda for Peace*;

*Pacem in Maribus XXIII*, assembled at Puntarenas, Costa Rica, from December 3 to December 7, 1995, has adopted the following *Recommendations*:

A. *Local/National*

1. Mechanisms should be established at the level of coastal communities and municipalities, which should include all sectors of coastal populations, in accordance with *Agenda 21*. These mechanisms should be responsible for decision-making on such local problems as sewage treatment, space planning, water management, coastal urbanization, and inshore and near-shore fisheries.
2. Where heavy reliance by local fishing communities on dwindling fishery resources could become a source of insecurity, coastal economic diversification should be developed, in particular in small island developing States. Appropriate training and retraining facilities should be made available.
3. Many small island developing States are denied access to concessionary funding from the international funding agencies, due to relative high per capita GDP. This impacts on the ability of these States to implement projects and programmes to protect the marine environment, especially where large investment in infrastructure is required, such as for sewage treatment systems. Renewed emphasis, therefore, should be placed on the further development of a vulnerability index as a measure, among others, of the real wealth of small island developing States.
4. Inter-ministerial mechanisms should be established at the national level. They should be responsible for integrating local coastal and ocean management plans, formulate a national oceans policy and ensure its implementation. Appropriate linkages should be established between local and national planning and decision-making mechanisms.
5. National Governments, especially nuclear weapons States, are urged to show greater respect and sensitivity for community sentiments and initiatives in relation to all military related activities which pose a threat to human security and well-being. This imperative is reinforced by community reactions to the recent French nuclear testing in the Pacific.
6. Naval manoeuvres and other non-navigational (except humanitarian) activities in the Exclusive Economic Zone without the prior notification and consent of the coastal State should be prohibited. The Brazilian declaration on the EEZ provides a possible model for this practice.

B. *Regional*

7. The mandate of regional seas programmes should be revised, moving them from the sectoral approach of the 'Seventies to the integrated approach required by *Agenda 21* and the *Agenda for Peace*;

8. The revision of the mandate also implies a revision of the geographic scope of regional seas programmes. Considering the impact of river-borne and atmospheric pollution on coastal and ocean management, the land-locked countries of the hinterland, up to the watershed, may have to be included.
9. The new, trans-sectoral and inter-ministerial mechanisms of decision-making at the local and national level should form the basis of representation at the meetings of Contracting Parties whose mandates now will include comprehensive security and all uses of the Regional Seas. The expansion of the mandate also implies the need for the participation of other intergovernmental institutions and organizations, such as regional economic commissions, regional development banks, the regional bureaux of the “competent international organizations” of the UN system, as well as nongovernmental organizations, at the meetings of Contracting Parties. The revised Barcelona Convention may offer some guidelines.
10. Following and regionally adapting the precedent set by the revised Barcelona Convention, Regional Seas Programmes should promote the establishment of Regional Commissions for Sustainable Development. The members of these Commissions should be elected by the Meetings of Contracting States. They might replace the “Bureaus” and function as Executive bodies responsible for the implementation of the policies adopted by the Meeting of Contracting Parties.
11. Like the UN Commission for Sustainable Development, Regional Commissions for Sustainable Development should have a High-level Segment, attended by the Ministers of the Contracting Parties. Such Ministers should come, in each case, from the Ministry responsible for the issue under discussion, on which decisions will have to be taken. On matters of joint surveillance and enforcement, other peaceful uses of Navies, peace keeping activities and all matters affecting the security of the regional sea, the High-level Segment should be attended by the Ministers of Defense of the Contracting Parties.
12. Appropriate linkages should be established between the Regional Commissions for Sustainable Development and the UN Commission for Sustainable Development.
13. The Maritime Zone of Peace concept, with its implications of “comprehensive,” or “democratic,” security, and including the denuclearization of regional seas, should be extended to all Regional Seas Programmes as they are evolving from a sectoral goal, limited to pollution abatement, to a comprehensive goal of “sustainable development.”
14. Regional systems for joint Research and Development of environmentally and socially sustainable technology should be established, in accordance with Articles 276 and 277 of the Law of the Sea Convention and the requirements of *Agenda 21* as well as of the Climate Convention. Such a system might be coordinated by a Regional Research and Training Centre for Sustainable Development. It could be financed in accordance with the provisions of the Climate Convention.
15. New sources of funding regional projects and assisting developing countries in the fulfilment of their responsibilities should be identified. A small tax on tourism might serve as a pilot experiment, and feasibility studies on the modalities of levying such a tax should be undertaken.

C. *Global*

16. To ensure continuing interdisciplinary attention to the Seas and Oceans and their roles in promoting comprehensive security and sustainable development, the General Assembly should devote regular sessions to ocean affairs, establishing a regular calendar of sessions. These “Ocean Assemblies” should, *inter alia*,
- (a) Forecast trends of danger to peace and human rights on the seas and oceans, from all sources and causes, and bring these to the attention of the appropriate Committees for their own action and/or referral to the Security Council or established regional arrangements under Chapter VIII;
  - (b) Receive and examine reports of the “competent international organizations” of the UN system on the development of the peaceful uses of the oceans as well as relevant reports of the Commission on Sustainable Development (CSD), the UN High Commissioner for Human Rights, the UN High Commissioner for Refugees (UNHCR), the International Organization for Migration (IOM) and other bodies and integrate such information in its wider analyses;
  - (c) Receive reports of the UN Trusteeship Council for the Common Heritage of Mankind (see paragraph 19 below) and forward recommendations thereon to the Secretary-General;
  - (d) Issue periodic Reports on the State of the World's Seas and Oceans.

Special provision should be made for the Ocean Assembly to conduct Public Hearings at which representatives of the nongovernmental community (people's organizations, industry, academia, and spiritual associations) can present proposals and comment on proposed decisions by the Forum.

17. The Division for Ocean Affairs and the Law of the Sea should be strengthened and its mandate broadened to encompass the following activities:
- (a) act as Secretariat for the sessions of the Ocean Assembly;
  - (b) ensure the maintenance for the Secretary-General and the central Early-Warning Unit of the necessary global and regional maritime early-warning source-networks;
  - (c) maintain a global roster of eminent and impartial persons for Fact-Finding Missions to the sites of maritime disputes and potential crisis points;
  - (d) advise the Department of Peacekeeping Operations as necessary and ensure its access to relevant maritime expertise;
  - (e) cooperate closely with the IOC based secretariat for the Seas and Oceans concerns of the Administrative Committee on Coordination (ACC);
  - (f) identify, in consultation with all branches of the UN system, needed new interdisciplinary research and encourage and secure support for such research to be carried out by the most appropriate institutions;

- (g) act as the central information and liaison agency of the UN Secretariat with the intergovernmental and nongovernmental community in all seas and oceans matters;
  - (h) ensure adequate attention to training programmes;
  - (i) provide all needed global-level support to the Secretariats of Regional Seas Programmes.
18. The restructured DOALOS should respond to the need for decentralization to regional and subregional levels and should allocate staff to appropriate institutions at such levels.
19. By Amendment to the UN Charter, the Trusteeship Council should be rededicated to a new task: that of safeguarding and developing the concept of the Common Heritage of Mankind for present and future generations. In this new capacity, the Trusteeship Council should act as a sort of Senate advising the General Assembly on all matters pertaining to the Common Heritage principle and its possible application, not only to the seas and oceans but also to outer space including the moon and other celestial bodies, the Antarctic, and other sectors crucial to human security and survival, such as food and energy. The Trusteeship Council might appoint a special officer as Guardian for Future Generations.
20. The flaws in the Implementation Agreement on the International Seabed Authority, 1994, should not be allowed to render the Authority inert, nor should the uncertainty over when the originally envisaged mining in manganese nodules and other minerals may begin, be allowed to paralyze the Authority's activities. The Authority is the only existing institutional embodiment of the principle of the common heritage of mankind. As such, it is a precious asset not only for demonstration of the principles and practical possibilities of planetary equity and sharing, but in the defence of peace itself. Only if it is useful—and seen to be useful—will the Authority live.

In its initial period, prior to the beginning of commercial seabed mining, the Authority should engage in, and develop the following activities:

- (a) The training activities undertaken under the auspices of the Preparatory Commission for the International Seabed Authority and for the International Tribunal for the Law of the Sea should be maintained, expanded, and integrated into other training activities within and outside the United Nations System;
- (b) The Authority should seek cooperation from industrialized and developing States for research and development in exploration, production, and processing technologies and in the assessment of the long-term environmental impact of such technologies;
- (c) The plan for the exploration of a first mine site for the Enterprise, adopted by the Preparatory Commission, should be implemented;
- (d) The Authority might use its growing expertise and technology to assist developing coastal States, if they so desire, in the exploration of the mineral resources on their continental shelves;

- (e) Through the evolutionary development of its initial activities, the Authority should seek to enter such new fields as the exploration and exploitation of the thermophile bacteria and carbon hydrates on the deep-sea floor which constitutes the common heritage of mankind.
21. The recommendations, contained in the Secretary-General's bench-mark Study on the Naval Arms Race, 1985, should be reviewed and revised in the light of recent developments. In particular, new ways should be found to promote
- the achievement by negotiation of denuclearization at sea and the lowering of conventional armaments to provide for security at reduced levels; and
  - the investigation of ways that naval organizations can make "positive contributions" to an improved and more effective oceans management policy.
22. Peace keeping and peace building, under the authority of the Secretary-General, must largely rely on regional cooperation and organization. "Such associations or entities could include treaty-based organizations whether created before or after the founding of the United Nations, regional organizations for mutual security and defence, organizations for general regional development or for cooperation on a particular economic topic or function, and groups created to deal with a specific political economic or social issue of current concern." Such "associations or entities" clearly should include the sea-centred institutions emerging from the regional seas programmes spearheaded by the Barcelona Convention organization.
23. The establishment of a UN naval task force envisaged in the Secretary-General's *Agenda for Peace* (1992), composed of ships assigned by nations on a permanent or rotational basis, should be given early consideration.
24. A resolution should be adopted by the General Assembly on the peaceful uses of the oceans. The Resolution should include the following elements:
- (a) adoption of a protocol or other appropriate mechanism to address incompatible military and nonmilitary uses of the high seas, with the guiding principle that nonmilitary uses be given priority for the well-being of humanity as a whole;
  - (b) adoption of criteria of responsible use of the oceans by naval ships and aircraft, including the duty to compensate for environmental damage and economic loss;
  - (c) negotiations leading to the termination of the exemption from compulsory dispute settlement involving naval activities in the oceans as embodied in the 1982 Convention;
  - (d) harmonization of the Convention on the Prohibition of the Emplacement of Nuclear Weapons and Other Weapons of Mass Destruction on the Seabed (Seabed Treaty, 1971) and the 1982 Law of the Sea Convention, by the next Review Conference of the Seabed Treaty;
25. A new peace conference, on the Hague model at the end of the last century, should be called in 1998 or 2007, to draft a new law for naval warfare, and, more generally, a regulatory framework relevant to naval activities on the oceans, in the light of contemporary technological, environmental and political developments.

26. A review of interpretations of Article 51 of the Charter of the United Nations should be undertaken, as it applies to claims of self-defense in all ocean settings, and its relations to the prohibition of the threat or use of force.
27. A study should be undertaken on the evolving concept of Zones of Peace and possible mechanisms for its integration into the concept of Regional Seas for the peaceful uses of the seas and oceans.
28. A study on possible designs for a regional naval peace keeping regime should be undertaken, in accordance with the *Agenda for Peace*, and a pilot scheme should be developed.
29. The study on selective prototypes of naval peacekeeping operations, recommended above, should be followed by an expert assessment of:
  - (a) the capital and annual costs of such peace and protection functions;
  - (b) the most likely and viable sources of revenues for UN and/or Regional Peace-maintaining capabilities on the seas;
  - (c) the optimum mechanism for levies (e.g., fractional surcharge on maritime insurance policies, or tax by cargo and/or passengers, or direct user-levies by tonnage);
  - (d) the optimum intergovernmental framework for receipt, management, and distribution of, as well as accountability for, such revenues (e.g., Regional Seas Trust Funds; GEF).
30. In order to link the common heritage with our common future, the large majority of the world's nations seeking an end to the threat of nuclear annihilation should seek to achieve a Nuclear Weapons Convention by the year 2000 that eliminates all nuclear weapons in a time-bound framework. The prohibition and conversion of strategic ballistic missile submarines must be part of this accord. Perhaps this will be the final step in achieving a nuclear weapons free world, including Nuclear Weapons Free Oceans.

**PART I**

**THE AGENDA FOR PEACE**



# THE AGENDA FOR PEACE AND THE LAW OF THE SEA

*Erskine Childers*  
with  
*Mara Snippe*

We meet at a time when history holds its breath, wondering: will the real representatives of humankind quickly enough implement *An Agenda for Peace*—and an Agenda for Development—to cope with the upheaval and conflict that is sweeping the planet, before it truly overwhelms us?

We are encoiled in a fog of unprecedented uncertainty about the very future of the United Nations, and about its resources for peace. The initiatives we can take to activate an Agenda for Peace for the Law of the Sea need careful choices. We need to see what we are up against very clearly, and identify every best opportunity despite the obstacles.

Mr. Boutros-Ghali's *Agenda for Peace* proposed initiatives that assumed some reasonable degree of cooperative behaviour by the powers—especially by the United States. Their current elites are not so disposed. But we *can* find signs of hope that two dominant influences in the life of our planet, one old, one more recent, are ending: signs of

- the terminal thrashings about of great-powerdom, and
- the coming exhaustion of a dangerous aberration in economic thought.

What these two forces are compelling us to cope with, however, vitally affects comprehensive security for our seas and oceans. This paper will therefore first sketch these conditions.

## **The World We Live In**

### *The Policemen of an “Era of Peace...”?*

Five years ago, with the Cold War ending, the elites of orthodox power in the North proclaimed “a new world order” and told us there would now be “a new era of peace.” With typical arrogance they did not ask all the ordinary rest of us, any more than they did in 1945, but simply told us that they now could, and would, police the world together. Simultaneously, however, they revealed their inability to perceive the real world that was emerging from their insane contest, for there was not the remotest chance of the “new era of peace” of which they spoke. We were not in any sense witnessing “the end of history,” but history was beginning to make long-deferred claims across the planet.

### *Colonial and Neo-colonial Legacies*

The imposition on most of humankind of intellectual and political stasis, of totally exogenous frontiers ripping peoples apart, of minorities being favoured over majorities, of alien Westphalian state structures, had never been redressed; all these colonial impositions had only been frozen in neglect during the Cold War. Once Cold War constraints were gone these legacies alone were certain to express themselves in massive unrest. But they were compounded after decolonization by the corrupt dictatorships that Northern Cold War intelligence agencies installed all across the South to save it for democracy. The dictators fully exploited the centrist state structures imposed under colonialism, thus continuing the empires' work in suppressing an indigenous evolution of representative governance. There was every likelihood that when a dictator went, the Westphalian state might too, and chaos would ensue.

### ***Increasing Impoverishment***

The imperial powers had also kept most of humankind in poverty. If this had merely continued it would have been another source of certain unrest; but again, this had been exacerbated by the powers in their continuation of the imperial trading system. Without adequate income from fair trade the developing countries could not possibly lift themselves out of their impoverishment amid rapid population increase, and could only incur more debts. The Northern industrial powers have been short-sighted enough to deny such fair trade. By 1990, eighty percent of humankind had lost even the paltry 28 percent share of world trade they at least had in the 1960s; now they had only a 19 percent share—by itself a prescription for ever greater conflict, not for an era of peace.

Worse again, the Northern powers' chief response to the South's resultant indebtedness had been the “structural adjustment” diktats of their bailiff, the International Monetary Fund (IMF). The IMF threatened each developing country with loss of any credit standing in the world if its conditions were not accepted, and bilateral “donor” agencies made their “aid” also conditional on such acceptance. Over 90 countries were ordered to cut back painfully built up health and educational services; to institute wrenching devaluations; to end state subsidies that were feeding and housing the urban poor; and to maintain colonial commodity exports which neither the IMF nor anyone else lifted a finger to ensure would be bought at feasible prices.

As the Cold War ended, one in every four human beings alive were (and still are) sunk in absolute poverty. Every year at least 20 million people—more than all the combat deaths in World War II—were (and are) dying unnecessarily of hunger and malnutrition-associated diseases.

The long-neglected, pent-up tensions and forces for radical change that all these Northern policies had generated were unleashed even as the powers were proclaiming their “era of peace.” Despair in deepening poverty, demands for identity at last, “fundamentalist” rage against the West and imitative urban elites, seething tension between colonially-intensified ethnicities, and violent challenges to imposed centrist state structures were as certain as that day follows night once the Cold War ended.

### ***Momentary Mirages***

For one brief moment in the Gulf Crisis the powers maintained the illusion of being policemen of the world, cloaking in a hijacked United Nations flag a war to protect oil profits and to smash Iraq for special geopolitical reasons. Even then, however, the reality began to show itself. The new “single super-power” had the high-tech. weaponry to be one, but not the money. The United States went hat in hand among the wealthy and they, not the US, paid for the Gulf War.

Since then the powers have *not* used their much-vaunted pre-eminence to police any part of the world. They have failed to stop wholesale butchery and vast civilian displacements carried out in the demagogic language of ethnicity in their own home continent and culture and in Africa: 250,000 dead and 2.8 million displaced in former Yugoslavia, at least 500,000 massacred and 2 million displaced in Rwanda, to mention only two of many horrendous upheavals they have totally failed to “police.”

At the same time, however—and this is of critical importance in our focus here—*they have denied the United Nations* the mandates and the resources to prevent such conflicts either. Meanwhile, the refusal of the Host Country to the UN to meet its legal financial obligations has pushed the world organization closer and closer to outright bankruptcy.

We are thus at a crossroads, and the way through it is still obscured by behaviour that is more and more irrational and uncertain. For on one hand the powers are now telling us fairly openly that they cannot afford, and their citizens do not wish, to be the policemen of the world; but on the other they wish to retain the feudal privileges they inscribed for themselves in the UN Charter on the promise of *being* such policemen.

In all Security Council reform debate they indicate their intention to retain their vetoes. They have already used the power the mere threat of veto gives them, to prevent the UN from acting effectively *even* when

they are unwilling to contribute troops or to provide their duly apportioned share of the costs. The emergent formula they *are* still willing to entertain, especially if it may help their elites with domestic-political difficulties, is a form of sub-contracting by the Security Council to their own military—bilaterally or multi-nationally—for selected operations calculated to be in their own special interests.

### *Subcontracting UN Peace-keeping*

The Gulf War against Iraq was prosecuted by a Council resolution (only secured by wholesale bribery and economic coercion of votes) which authorized *literally* unnamed states to use force in the name of the United Nations whenever “they” were ready and so decided. The resolution did not even mention the Secretary-General and did not allow further Council discussion. The Council was not to be involved in prescribing what would be attacked, by what means and with what force, or in halting the attack once begun. In a very real sense the UN Charter was rented out to the unnamed “coalition” in the name of every UN member.

Among subsequent examples of “sub-contracting,” the Rwanda tragedy is perhaps the most hideous witness. In 1993 the powers refused to “see” the mounting evidence of active organization for genocide and politicide, and authorized only a token UN peace force of 2,500 troops for Rwanda. When the killings began they insisted that this already pathetic UN force be cut to only 270 troops; then a month later, embarrassed by the massacre already of at least 300,000 people, they authorized 5,500 largely African UN troops but still without a peace-enforcing mandate, and of course far too late to stem the genocide.

*Five days later*, however, when France sought UN approval of a French military deployment of 25,000 troops for its own image-restoring purposes in its own chosen part of Rwanda and paid for by France, the same powers in the same Security Council instantly approved “Operation Turquoise” with a full mandate for peace-enforcement under Chapter VII of the Charter.

The powers are in final retreat from their claim to be the “policemen of the world;” but they still insist on retaining the decision whether the world can police itself without them. Appallingly, this has impelled Mr. Boutros-Ghali to begin endorsing the thesis of sub-contracting. He is also, however, hinting at new kinds of arrangements under Chapter VIII of the Charter, which would expand the responsibilities of regional intergovernmental organizations (the European Union, the Organization of African Unity, the Organizations of American States, et cetera). We should return to this.

The five Permanent Members are supposed to meet between them 56 percent of the costs of any peace-keeping operation. Their assessed shares are neither arbitrary nor excessive: they are calculated off standing capacity-to-pay formulae. But the United States is resisting meeting its due share, and usually takes Britain and France along with it. The Secretary-General is more and more inclined to propose only what the traffic will bear (meaning the “PermThree”), not what a crisis and the human beings threatened by it actually need.

As a result, the Security Council is now, in effect, an organ of hypocrisy and evasion—suggesting to the world that it is approving UN peace missions “for” a crisis, when it is increasingly often approving missions that cannot possibly cope with that crisis.

One further major element in this part of our equation needs summary. The refusal of the United States to meet its share of regular-budget and peace-keeping costs, combined with the inabilities of Russia and Ukraine to do so from economies further wrecked by the high priests of market magic, have resulted in arrears currently totalling nearly \$3 billion. Troop-contributing countries are currently owed some \$900 million and, not surprisingly, they are showing reluctance to contribute to new operations without assurance of reimbursement. We have to take all these factors into account in seeking ways to build the capacities we need for peace on the seas and oceans.

### ***An Economic Intoxication***

All of this profound flux in the UN's peace responsibilities and resources has developed side-by-side with a period of rampant mindlessness in economic thought. The same power elites have been thoroughly opiated with—or have been politically frightened into accepting—the tenets of the most dangerous fundamentalist religion in our world, that which worships the magic of the market. The track record of this over-reaction to Soviet command statism is disastrous, and its literature is riddled with false analysis and cooked statistics. But its high priests are very nimble in covering every “miracle” that explodes in their faces, as in Mexico.

It is ironic but it is more and more clear why their fullest impact on an intergovernmental public institution has not been on land, but on the bottom of our oceans. *The market religion's most dangerous conceptual adversary is that of human sharing.* The idea of a Common Heritage of Humankind in the Seabed and its resources, to be democratically managed by governments, was and remains the ultimate anathema to this high church. When compromise was tried at UNCLOS III, in order to get the Law of the Sea adopted, a hybrid formula resulted, half intergovernmental, half sub-contractual. The “Parallel System” enabled the religion's advocates to enthrone their supposed magic on the ocean floor, and to deny a full first example of human sharing in a Commons, lest such a model find its way onto the land as well. The resulting weaknesses in that part of the Law of the Sea Convention (Part XI) were finally swept away, together with the strength and uniqueness of that Part, by the so-called “Implementation Agreement” adopted by the General Assembly in July 1995.

### ***A One-Way Sub-Contracting Dogma***

It is thus a religion of reducing governmental responsibility and sub-contracting to unknown speculators worshipfully called “market forces.”

It seeks also to reduce *intergovernmental* responsibility, even far short of management of common heritage. Its adherents would dismantle the UN Charter's economic and social mandates to the intergovernmental community to create “the conditions of stability and well-being which are necessary for peaceful and friendly relations among nations” (Article 55). The only economic security this religion offers is whatever market forces may or may not bring about in their own interests, which are not the interests of the vast majority of humankind who are relentlessly plunged into deeper poverty by it.

The fate of the IMF in the hands of power-elites accepting this dogma is significant. The IMF was supposed by the UN's founders to become the world's central bank, working closely with a democratically functioning International Trade Organization to intervene equitably in both deficit and surplus economies and to build a stable planetary currency and trading system to promote economic security and the “advancement of all peoples.” Instead, the IMF today does not touch even ten percent of world liquidity. It has no influence whatever over the one trillion dollars of national currency reserves and peoples' savings being electronically moved every day across frontiers for largely private profit, not productive investment. These currency movements are wholly unaccountable, not approved by, not even registered with governments that have simply abdicated their public responsibilities to these forces.

Meanwhile we can appreciate how nearly unhinged are the minds that have been intoxicated by this religion. As the North hailed the Uruguay GATT accords—in which Africa is guaranteed to *lose further* in trade income—the IMF and World Bank began telling African countries, the poorest in the world, to institute payments by citizens for what is left of their already slashed public health services. All this is very relevant to our focus, because the unrest and impoverishment this religion has been helping to generate all across the world will surely spill from the lands onto our seas and oceans if not checked.

It is there already in increasing piracy, reaching ever farther out from coastal waters. It is there already in the use of the seas for traffic in narcotics, and in surplus weapons. We have seen symptoms of the violence

that could develop on the high seas over unilateral national attempts to protect EEZ fish stocks from depletion beyond it. Conflict over high-seas stocks is also predictable, in an industry that has \$55 billion of annual governmental subsidies behind it, and some 500 flag-of-convenience fishery vessels operating outside agreements like those for tuna catches in the Atlantic alone.

We can see already in small-scale movements the enormous potential dangers to peace, life, and human rights, of large-scale migrations from poverty on the seas towards the never-never lands of the North. Europe is nervously scanning the northern shores of Africa, where there is an unemployed population of young and impatient men and women equal to the whole of Europe's population. The novels and films about future huge sea migrations from abject poverty and unemployment are not at all apocryphal.

Thus, on the seas as on the land, we confront the necessity of building capabilities for peace-keeping and the protection of human rights, while aware that unless the *underlying causes* are also urgently tackled, such capabilities will be overwhelmed as fast as we build them.

### ***A Tale of Two UN Councils***

A comparison of the activity of two United Nations organs along the spectrum of the UN's Charter responsibilities, from the causes of conflict to the violent consequences of neglecting those causes, provides dramatic illustration of what has been happening.

At San Francisco in 1945 the smaller countries insisted that the rhetoric of the Preamble about saving succeeding generations from the scourge of war be matched by mandates and appropriate machinery to tackle the *causes of war*, through the Economic and Social Council (ECOSOC). They sought to build a UN System in which energetic effort through ECOSOC would reduce to a minimum the amount of work that the Security Council would have to do. Reflecting this emphasis, Australia led an effort to have ECOSOC chartered to be in standing session, year-round, but failed. Today it is the Security Council that is in continuous session dealing ineffectually with the consequences of neglect of causes, while ECOSOC has the entire causal agenda of humankind but meets for *only five weeks in the year*.

This is not accidental. Whenever any delegation has called for substantive work in ECOSOC to formulate all-win macro-economic and sustainable development strategies to advance the whole world economy of nearly six billion human beings, the representatives of the powers have refused to participate. They claim (illegally) that the IMF and World Bank have such mandates, meanwhile ensuring that neither agency does anything of the kind. Not surprisingly, there is general discontentment with ECOSOC, and much current talk in the North of replacing it with a smaller "economic security council." The parallels between this proposal and the reform of the Security Council favoured by the powers are uncomfortably close. For the Security Council, the ploy is to seduce a few large Southern countries into accepting Germany and Japan by offering those Southern countries, too, some kind of Permanent-Member status (though not necessarily veto power!). For the replacement of ECOSOC the ploy is to propose that the world's largest economies be members of the smaller council "as of right," which would include some large Southern countries. If these proposals win the day then at once the Northern powers will have achieved, in both branches of UN responsibility, an institutional smashing of majority solidarity such as they can only now achieve by *ad hoc* economic extortion of votes and bribery.

On the economic ideological front, however, it is just possible to discern some re-awakening from the torpor of this opiate economic religion. What happened in April 1995 at the Social Summit in Copenhagen can prompt the wildest fantasies. Did old Neptune emerge from the waters off Denmark, with the Law of the Sea in one hand open at Article 82 and his trident in the other, to jab Northern leaders out of their trance? At all events, after total silence since Nobel laureate-economist James Tobin first proposed it in 1978, suddenly one leader after another at Copenhagen was referring approvingly to the idea of an international tax on currency exchange—to raise funds for UN social and sustainable development goals.

The motive of using such taxation for these purposes is, of course, laudable, and it offers us good prospects. But James Tobin had undoubtedly helped by recently reminding us that he had originally proposed the tax scheme to put some disincentive regulation on speculators. Leaders who have been seriously frightened by the nearly catastrophic—*globally* catastrophic—crisis in Mexico over short-term investments by speculators still judge it too dangerous politically to propose straight-forward re-regulation. But to suggest international taxation of the speculators *for UN purposes* could achieve re-regulation without the same risk! It is pathetic, but it does indicate that we may be able to see light at the end of this tunnel of economic nonsense before it wreaks too much more damage across the world.

### **Recommendations**

The foregoing cursory survey, then, suggests that we should not depend, for a peaceful management of the Law of the Sea, on the present behaviour of those we have for too long allowed to be the predominant actors on the world stage. We can hope that their own citizens will put these tired elites out to pasture and instruct their governments to join the rest of humankind in genuine co-operation, but we must not wait for it.

This is not only the 50th anniversary of the United Nations but the 350th anniversary of the death of Hugo Grotius; and it is time to recall his conviction that the only way for weaker nations to prevail against more powerful ones is to unite and create laws, and machinery for such laws, that can enforce justice.

We need to move ahead *around* the powerful. We must choose *where* first to make such moves.

Two crucial factors will run through the following recommendations: the costs of establishing necessary capacities, and whether an over-arching multi-purpose maritime agency of the UN is needed. Both these systemic factors will be addressed after specific recommendations.

The logic of the moment militates against any initiative in the Security Council. There it is relatively easy for the powers to have their way, not only by threat of veto but because they need only bribe or threaten the economic life of the few low-income countries who are members of the Council at any one time.

As long as the present policies of the powers prevail in the Council, there is little prospect of organizing UN naval peace missions, leave alone standing UN maritime peace capacities, *if these require financial support from them*.

We must, of course, be prepared to demand Security Council peace-keeping action in any major maritime crisis. We should, however, be aware that concerned governments are increasingly realizing they may have to take crisis-response needs to the General Assembly (under the “Uniting For Peace” precedent) when the Security Council is paralyzed by one or more Permanent Members.

### ***The General Assembly***

The General Assembly does offer somewhat greater hope at the global level. It is important to be aware that Assembly members are also subject to coercion; that is how the Non-Proliferation Conference was rigged to produce what the nuclear powers wanted (the head of the Venezuelan Delegation resigned over the changed policies of his government after it had been coerced; asked about this extortion Indonesia's Foreign Minister merely replied, “So what else is new? It happens all the time.”). But there is at least a chance of Assembly action if solidarity can be maintained against the economic menaces. These are by definition harder to mount against some 130 members; the powers tend to reserve such coercion for attempted blocking of Assembly action that touches their very highest perceived self-interests.

Although little known because the Security Council has been so prominent, it is the General Assembly that is mandated in the Charter to adopt *policy* on peace-keeping (Articles 10 and 11.1). Again, although the Security Council has been violating the Charter's separation of powers in such actions as creating War Crimes Tribunals, it is the General Assembly that is explicitly mandated in the Charter to develop needed new *international law* (Article 13.1).

### ***A Declaration of Maritime Peace and Security***

We should work energetically for a General Assembly Declaration elaborating on and integrating:

- (a) The concept of Peaceful Uses of the Seas (Article 301 of the Law of the Sea Convention), including prohibition of acts of piracy and use of the Seas for illegal trafficking in substances, weapons, persons and endangered species;
- (b) The concept of Reservation for Peaceful Purposes (Article 88), including harmonization of the Seabed Disarmament Treaty with the Law of the Sea Convention;
- (c) Principles to govern United Nations action to preserve or restore the peace on the high seas, and to assist states in such preservation or restoration within an EEZ; and
- (d) Invoking Article 288.2, explicit principles applying the UN International Bill of Human Rights, including International Refugee Law, to the oceans and seas including EEZs.

### ***A UN Forum on Ocean Concerns***

Under Article 22 of the Charter, the General Assembly “may establish such subsidiary organs as it deems necessary for its functions.” Consideration should be given to mobilizing support for the Assembly's establishment of a “Seas and Oceans Forum” (or equivalent title) which would be charged with holistic monitoring and discussion of all issues and needs concerning ocean space.

- (a) Since maritime peace is manifestly indivisible from economic and social trends on the land and seas, such a forum would have the special responsibility to forecast trends of danger to peace and human rights on the seas and oceans from all sources and causes, and to bring these to the attention of the General Assembly for its own action and/or referral to the Security Council;
- (b) The General Assembly's Sixth (Legal) Committee would consult the Forum on relationships of international maritime law or other substantive ocean concerns; and
- (c) Relevant reports of the Commission on Sustainable Development (CSD), the UN High Commissioner for Human Rights (UNHCHR), the UN High Commissioner for Refugees (UNHCR), the International Organization for Migration (IOM) and other bodies could be examined by such a forum and integrated in its wider analyses.

### ***Early Warning***

A prime requisite for effective maintenance of peace will be a highly effective early warning system. This applies to the seas no less than to the land. After being denied any such capacity by the powers during the Cold War, first attempts to create it in the UN Secretariat have involved several shuffles, and it is currently housed in the Department of Political Affairs (DPA). Efforts are being made from many sources to persuade the Secretary-General to re-organize this fledgling UN early-warning machinery so that it works directly within his or her Office and is served by and consults all Departments.

It is now generally recognized, however, that by its nature the UN cannot operate an adequate early-warning system by itself; that it must benefit from source-networks both official and non-governmental; and that such early-warning systems are needed within each *region*.

The Seas and Oceans community should not, however, assume that its special needs will be attended to by any over-arching improvements in UN early-warning; on the contrary, those UN improvements themselves depend on adequate development of early-warning capabilities within each special field. A panel should be formed of professional specialists in early-warning systems as such, and international maritime experts, to review the various options for developing early-warning mechanisms for the high seas and the EEZs. The panel should carefully examine the relative merits of a unitary early-warning mechanism or of “branching” options—for example, are fisheries disputes so specialized that the industry needs its own early-warning machinery that can feed up to the UN? How should surveillance and early warning against piracy be organized?

It takes but a few minutes' reflection to realize that there are no easy answers to these questions; care must be taken to formulate recommendations that will get the answers as nearly right, the first time, as possible. Early warning is of critical importance if breaches of peace and human rights are to be averted at the very earliest stage and brought to conciliation and arbitration.

### ***Fact-Finding***

Early warning should lead to prompt fact-finding, so that the international community is on a sound factual basis—and is seen so to be—for its responses to a crisis. The General Assembly gave special acknowledgment in a Declaration in 1991 to the importance of prompt Fact-Finding in a potentially dangerous situation (Resolution 46/59). In a reflection of the growing distrust of the Security Council, the Declaration significantly authorizes the General Assembly itself—as well as the Security Council or the Secretary-General—to dispatch a fact-finding mission to a potential crisis-point.

This is a vital component of both preventive diplomacy and of early informing of contingency-planning for possible peace-keeping action on the seas. The UN mechanisms authorized in the Declaration are, of course, in principle available for maritime needs, but more flexible response machinery to get out a fact-finding mission may also need development. The Seas and Oceans community should do two things about this:

- (a) Identify all existing machinery within the community itself and below the global UN level that could be used for “triggering” fact-finding. Are such specialized mechanisms adequate for such responsibility in the relevant fields? Or would an overall maritime agency be the most effective response-point in situations where the global UN level need not—or not in first instance—be activated?
- (b) Assemble panels (by specialization) of highly reputable and disinterested women and men who are willing to be available on short standby to join a fact-finding mission concerning the Seas or Oceans. This is still a major deficiency for the UN's preventive diplomacy capabilities, and is so acknowledged by the Secretary-General; it needs hard work and then sustained maintenance to form such specialized panel(s).

### ***Dispute Settlement***

The Law of the Sea Convention contains, without doubt, the most carefully elaborated and most substantively comprehensive dispute settlement system of any integrated body of international law. The General Assembly Declaration we are proposing would invoke and build upon UNCLOS Articles and would



link the Convention with other relevant international agreements. This would further strengthen the bases in law and in enunciated principle for ensuring dispute settlement involving, for example, UN Human Rights.

Over time, the excellent foundations for dispute settlement laid in UNCLOS itself should be further built upon. A panel of international legal experts specializing in the fields that may not be explicitly or as yet adequately covered in UNCLOS—including Disarmament and Arms Regulation, Piracy, Traffic in Narcotics and Traffic in Human Beings, Environmental Protection, and Human Rights with special reference to migration and refugee protection—should assemble recommendations for the application of UNCLOS dispute-settlement rules and mechanisms to them.

Close attention should be paid to the merits of developing dispute-settlement procedures and capacities at regional levels.

### *The Regional Dimension*

Partly because of the reluctance of key Northern member-states to contribute, adequately, or at all, to UN peace missions, partly for obvious reasons of closer political and cultural sensitivity, many authorities have begun to emphasize building regional peace-keeping capacities. Four general principles can be adumbrated in the relation of this dimension to the United Nations.

First, it is of course not safe to place *all* reliance on the effectiveness of regional machinery: the performance of Europe's panoply of regional organisms in failing to prevent the devastation of former Yugoslavia says why.

Secondly, the UN Charter has an entire (little used) Chapter VII on Regional Arrangements, in which (under Article 52.3) the Security Council is supposed to "encourage the development of pacific settlement of local disputes through such regional arrangements."

Thirdly, however, Article 53.1 expressly requires Security Council approval of a regional enforcement action; beyond peaceful settlement the UN is *ipso facto* involved, although both the definition of a regional enforcement action and the stage at which Council approval is mandatory have been disputed.

A fourth principle can be advanced, namely that it is in the general interests of the international community as a whole that, to the greatest extent possible, governments within a region should assume the primary responsibility for resolving disputes among themselves, with the support of the rest of the community through the United Nations.

The great preponderance of thinking so far about the regional dimension of UN peace-keeping—as distinct from nuclear and other disarmament efforts—has, however, concerned situations on land, and to some extent in the air space over land within a region; far less about situations on the surrounding or enclosed seas and oceans.

The present regional machinery of the UN itself excludes these fields: the UN Regional Commissions, as presently mandated, are commissions of ECOSOC dealing exclusively with economic, social, and sustainable development matters. There is, of course, no reason as such why their mandates could not be extended to make them the UN's comprehensive regional intergovernmental bodies responsible also for peace and security; but any such development must be studied in relation to each region's own intergovernmental machinery.

The primary regional and subregional intergovernmental organizations (OAU, OAS, CARICOM, EU, Arab League, ASEAN, etc.) have not as yet placed emphasis on the Law of the Sea as part of their in any case comparatively recent initiatives to develop more effective peace-keeping capacities.

The field is therefore relatively open and untried, yet of vital importance for all the reasons earlier adduced. Here again, the Seas and Oceans community faces the various conundra of its internal specializations:

- Could one integrated regional peace-keeping “regimen” cover fisheries, mining, environmental degradation, migration, piracy and so on?
- Does peace-keeping in EEZs require special regimes? Could these be developed under present regional organisms?
- What geographic, jurisdictional, and political problems are involved in regional measures for high-seas peace-keeping when two (or even more) existing overall regional intergovernmental organizations might be involved (e.g., OAU, Arab League, South Asian and ASEAN machinery in the Indian Ocean)?

These questions are in no way negatively posed. The cooperation of governments bridging their different regional organisms in efforts to secure Nuclear-Free Oceans and Zones of Peace shows what can be done at this dimension. Discussions on Comprehensive Security in the Mediterranean equally indicate that the technical difficulties should not be insuperable. The principal issues are how to move forward, (a) in ways that do not overload the in some cases very slender staff resources of regional bodies; and (b) consonantly with but not getting bogged down within regional/zonal disarmament work.

The authors do not apologize for suggesting, here again, some very concentrated analytical work and discussion by specialists:

- (a) The International Ocean Institute should consider selecting a region with a wide enough typology of characteristics likely to be present in other regions, and should seek the cooperation of relevant institutions and specialists of that region, in consultation with the intergovernmental regional body, to develop a trial “model” for a maritime peace regime. Such a model could then serve as the basic paper for an inter-disciplinary symposium having two phases and participations: region-specific, and then inter-regional.
- (b) The entire subject of regional peace regimes in the Law of the Sea should be included in the terms of reference for the feasibility study on a United Nations Maritime Agency discussed hereunder.

### *Naval Peace-keeping Capacities*

Bearing in mind the current extremely adverse conditions for peace-keeping capacities at the global United Nations level in the Security Council, and the general low priority that officialdom as yet assigns to maritime questions, we must be both politically sensitive and highly innovative in trying to develop the first impartial naval capabilities.

The international community is as yet so mentally accustomed to thinking of the Security Council for all such capabilities, and is now so pessimistic about this level, that proposing any full-scale scheme for naval peace capacities would probably be ignored as “unrealistic.” It is therefore recommended that a pilot scheme be developed and, hopefully, put into operation to build support. This clearly calls for more analytical work, and it is suggested that it should be limited to naval capacities for needs other than those of disarmament or inter-navy confidence-building measures as so far evolved.

An expert international meeting is needed to survey the whole realm of UNCLOS, and identify one or two types of peace-keeping needs requiring naval forces that have the following characteristics:

- (a) The selected area should be one where there is actual danger now, and where the material interests of governments and/or commercial organizations are in some significant degree threatened; a second case should be in an area where governments can already perceive likely future danger;
- (b) It would be preferable if such identified needs for naval peace-keeping capabilities were within manageable structures, i.e., a region or sub-region having already an intergovernmental mechanism, and/or a specific maritime industry already having its own association;
- (c) These prototypical situations should call for protection and policing activities on the seas and oceans for which those with direct material interests would be likely to consider sharing in capital and running costs.

The aim of such a meeting should be to refine one or two prototypes, with specifications of the kinds of technical naval capabilities, the mandates they should be given, and their costs, so that specific pilot schemes could be proposed for authorization and for funding by an assessment formula among the users and stakeholders. The meeting should identify with the help of marine, regional, and UN lawyers whether the selected prototype operations should be directly under United Nations aegis or under a regional intergovernmental body authorized by the UN.

#### ***A UN Maritime Agency?***

As anticipated, a recurring question runs through the foregoing recommendations: is there a need for a comprehensive UN Maritime agency with responsibilities that would include the technical requirements of maintaining peace and security on and under the seas and oceans?

The peace and protection needs of the seas and oceans are certainly complex, specialized, and systemic enough to make the idea attractive. However, care must be taken from the outset with the examination of this concept. The Seas and Oceans, their peacefulness and conviviality for human and other life, and their active protection, are not a specialized-agency "sector"; they are supremely holistic. If a UN Maritime Agency were to be established as a *separate UN specialized agency*, it would run the risk of having its fields of endeavour regarded as a "sector" unto itself, as has happened with agriculture (FAO), health (WHO), et cetera. It could impose all the difficulties of inter-disciplinary research and policy-formulation experienced now with the UN's existing specialized agencies.

Much of this difficulty would be overcome if governments were now to implement their own original 1946 decision for a quite different architecture of the UN System. This was that the headquarters of all Specialized Agencies be located beside the Seat of the UN itself, so that Agriculture could talk with trade, and finance with health, and all the so-called "sectors" including the present International Maritime Organization (IMO) with the diplomats to and the staff of the central United Nations. However, unless and until the present scatterization of the agencies in nine cities in seven countries on two continents separated by one ocean is ended, great caution would be needed in how the very idea of a UN Maritime Agency should be discussed.

An alternative possibility is a Centre within the UN, but with specialized intergovernmental direction (urges to call it a "Fund" should be resisted; this way lies separatism and staff time diverted into competition for "identity"). If there is merit in the idea of a Seas and Oceans Forum of the General Assembly, then it could also be the governing body of such a Centre in the UN. If there is need for a specialized focal point for early warning, the mounting of fact-finding missions, and other pre-emptive activities for peace protection on the seas and oceans, then some merit could be seen in these being housed in the secretariat of such a Maritime "agency."

On the other hand, the old adage, “out of sight, out of mind” needs careful remembering: it can equally well be argued, at least on behalf of an *Agenda for Peace* and the Law of the Sea, that all but *sub*-United Nations early-warning *network* resources for the seas and oceans should be thoroughly *integrated* in the UN's overall peace and security machinery.

If, however, there are powerful arguments for a comprehensive, inter-disciplinary UN Maritime entity—avoiding the pitfalls of Specialized-Agency status and located inside the UN Secretariat—there might be sufficient net advantage in the peace and protection capabilities being located with it.

It will be evident from the foregoing summary analysis that decisions on the net merits or otherwise of such an “agency” extend far beyond peace and protection needs and considerations, and therefore the scope of this paper. A comprehensive feasibility study should be carried out on the concept of such a UN Maritime “agency,” without pre-determined views, and bearing in mind the pitfalls noted above, but encompassing all the requirements of activating an *Agenda for Peace* with the Law of the Sea to test their optimum location(s).

### ***Financing Maritime Peace and Protection***

It has been observed earlier in this chapter that the traditional mechanism for financing UN peace-keeping capabilities—decision by the Security Council involving assessment on all member states, this being then approved by the General Assembly—will remain gravely handicapped as long as the Permanent Members retain their present stranglehold.

Equally, the staff capacities of the UN Secretariat, far from having elasticity, are under active threat of further drastic cuts (the industrial powers forced a wholesale 13 percent cut in 1986, only five years later to complain about the weakness of the UN Secretariat for peace-keeping).

In 1985 the majority of UN members unwisely compromised the Charter's provision (Article 18.1) that the General Assembly approves all budgetary matters by a two-thirds majority. In return for a US promise to resume full payment of its dues, they accepted a formula of consensus approval of budgets. As invariably when the South has compromised in return for a Northern-pledged *quid pro quo*, a decade later that US promise has never been fulfilled, while of course the consensus formula stands.

This means that every proposal for any additional function in the UN Secretariat gets a response, under threat of “no consensus” from the industrial powers, that the addition must be financed “within existing resources.” Proposals to add peace and protection functions for the seas and oceans anywhere in the UN's machinery would likely get the same short shrift from its minority-governors.

This need not, however, block all development of financial resources. Indeed, it may prove easier to mobilize them from those who have the most direct interest in peace on the seas.

Capital investments in maritime activities are huge, and the risks commensurately large. The protection of resources in UNCLOS—for example, EEZ resources—will increasingly be regarded as a necessary and high-return investment (in a number of cases already involving contracting surveillance to private security firms). The financial risks from piracy are growing. The costs of caring for illegal migrants on the seas are tragically bound to escalate until the causes of their impoverishment and desperation are more seriously addressed.

Thus, the advantages of special co-financing of impartial United Nations (or regional?) early-warning, fact-finding, other peaceful-redress activities, and patrol and police capabilities, can be very cogently argued.

Ahead of the time when actual Seabed mining may generate public revenues, there are conceivably more potentials for accruing funds for peace and protection on the seas and oceans than from any other sources. The very recent new respectability given by major Northern figures to international taxation, referred to earlier in this paper, can be powerfully built upon.

The meeting on selective prototypes of naval peace-keeping operations, recommended above, should be followed by an expert assessment of:

- (a) the capital and annual costs of such peace and protection functions;
- (b) the most likely and viable sources of revenues for UN and/or Regional Peace-maintaining capabilities on the seas, by sector (e.g., fisheries) or other category;
- (c) the optimum mechanisms for levies (e.g., fractional surcharge on marine insurance policies, or tax by cargo and/or passengers, or direct user-levies by tonnage); and
- (d) the optimum intergovernmental framework for receipt, management, distribution, and accountability for such revenues (e.g., a UN Maritime "Agency"?).

**Conclusion**

Some work of noble note may yet be done,  
Not unbecoming men that strove with Gods.  
The lights begin to twinkle from the rocks:  
The long day wanes: the slow moon climbs: the deep  
Moans round with many voices. Come, my friends,  
'Tis not too late to seek a newer world.

Alfred Tennyson, *Ulysses*

## A PEACEFUL FUTURE FOR THE OCEANS?

*Richard Falk*

It is both a privilege and a challenge to participate in a *Pacem in Maribus* conference, given the reputation of the International Ocean Institute that has accumulated over the years for its leadership in forging a beneficial future for the oceans. Participation has an added personal dimension for me as I have known and been a friend of Elisabeth Mann Borgese ever since she first began articulating her vision of the future of the oceans while she was still attached to the Center for Democratic Institutions in Santa Barbara. My attempt in this chapter is to consider somewhat critically the status of military activities on the oceans as it bears on the prospects for a peaceful future. I am drawn to this inquiry partly because so much of the literature seems by its neglect to regard virtually unregulated military activities on the oceans as either an unshakable fact of international life or as a nonproblem. My own point of departure is to question both of these alternative lines of explanation.

First of all, let me indicate my approach to this topic. It would be quite sensible to conceive of "peace" in broad terms that encompass sustainable and equitable development, in keeping with the attractive view that a peaceful world implies something more than the absence of war, and that the something more involves establishing the conditions for human dignity without reliance on force. Despite the importance of such an argument for a broader conception of peace, my emphasis will be on peace more narrowly and traditionally understood as relating to those military activities associated with the use of the oceans, and the related quest for global security.

There have been several notable international controversies with significant military implications for the oceans in recent years: one thinks immediately of the Gulf War, with its massing of an armada of naval vessels; of the implementation of UN sanctions against Iraq and the former Yugoslavia partly by way of an embargo on shipping; of French testing of nuclear devices at underwater Pacific atoll sites; of the multi-state conflicts relating to sovereignty over the Spratly and Paracell Islands in the South China Sea; of the Canadian-Spanish conflict that moved close to war with respect to fishing rights in the North Atlantic; and of the conflict between Turkey and Greece concerning an Aegean islet. And yet despite these diverse and repeated challenges to world order, and others that could be mentioned, the subject-matter of military activity in the oceans has been generally neglected in recent years. For instance, in Secretary-General Boutros Boutros Ghali's *Agenda for Peace*, there is not a single reference to the oceans, or their possible relevance to the peacekeeping roles of the United Nations. At first glance, this seems to be such a gross oversight as to be impossible to explain, yet more carefully considered, this oversight is quite revealing of the deeper challenge posed by the effort to ensure a peaceful future for the oceans.<sup>1</sup> *Our Global Neighborhood*, the report of the Commission on Global Governance, also exhibits this same failure to include the oceans in its comprehensive assessment of a world order agenda for the future, except ecologically in relation to upholding the global commons, and then only most scantily by reference in a single phrase that takes note of "the depletion of ocean fisheries."<sup>2</sup>

Let us consider some of the obvious reasons for this astonishing neglect of these obvious threats to a peaceful future for the oceans. To begin with, recent conflicts have been resolved or stalemated by diplomatic means, or seem to be over the horizon of present concerns as is the case with respect to a possible role for

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<sup>1</sup> This oversight is effectively commented upon in Elisabeth Mann Borgese, *Ocean Governance and the United Nations*, Halifax, N.S.: Dalhousie University Centre for Foreign Policy Studies, 1995, pp. 175-92.

<sup>2</sup> Oxford: Oxford University Press, 1995, p. 215. Perhaps, most surprising is the failure to even mention the oceans in the course of an extended discussion of "demilitarizing international security," or elsewhere in a report of several hundred pages that claims to be providing an overall picture of "global governance." With oceanic water covering over 70 percent of the earth's surface such an oversight cries out for explanation.

Chinese naval forces in support of their claims to Taiwan and in the Spratly Islands. Further, with the exception of China, the major maritime powers do not seem to have any strongly antagonistic interests, and more significantly, associate a strong sense of benefit with respect to existing permissive patterns of regulation relative to military activities on the oceans, and more to the point, are exceedingly sensitive about the expression of any doubts about the persisting viability of the traditional ocean security regime premised upon the "freedom" to make virtually unrestricted military use of all ocean waters lying beyond territorial waters. Nonmaritime countries, in contrast, generally avoid these issues, presumably because of their sense of futility and impotence when it comes to questioning the military prerogatives of powerful states. But I believe we have reached a stage in world order experience where such unquestioning deference no longer continues to serve global security interests as we near the end of the millennium, and seems inconsistent with the fundamental effort of contemporary international law to restrict the role of military force to strictly defensive roles.

With respect to public concern and scholarly attitudes, the neglect of military activities in the oceans can be explained somewhat differently. That portion of the public that considers such matters at all appears to believe that somehow the sweep and extensiveness of the 1982 Convention on the Law of the Seas somehow establishes a framework that applies to all activities on the oceans, including those of a military character, and that these latter are sufficiently regulated by an overall imperative, as enunciated in the Convention's Preamble to "...promote the peaceful uses of the seas and oceans." This general sentiment is repeated several times in the body of the treaty, for instance, in Articles 88, 141, and 301, but each time without any implication of an operational interference with the traditional prerogatives of regional and global navies whose range of activities does not seem "peaceful" as that word is most generally understood. In fact, the 1982 Convention does not attempt to regulate directly military activities as such beyond the bare minimum that has been accomplished over time by customary international law and by a few specialized treaties that have imposed several insignificant restrictions on maritime freedoms. In essence, the 1982 Convention gives global maritime powers an exemption from scrutiny with respect to their military activities, and as a practical and legal matter these maritime powers retain their full discretion to carry out whatever naval and related air activities their leaders deem relevant to national security and foreign policy goals even if such behaviour generates widespread protest and controversy and is best understood as being nondefensive.

This failure to challenge traditional international naval prerogatives is forthrightly expressed in President Clinton's Letter of Transmittal to the US Senate, urging ratification of the 1982 Convention. The American President asserts clearly that the treaty makes no inroads on traditional maritime freedoms on the oceans, and is helpful as it confirms these rights under contemporary conditions: "The Convention advances the interests of the United States as a maritime power. It preserves the right of the U. S. military to use the world's oceans to meet national security requirements." The one partial exception, which again lacks operational guidelines, is the generalized duty to exercise this freedom in a manner that does not interfere with other uses of the oceans. On this basis nuclear testing has always been controversial because the alleged security justifications pose manifest and serious environmental dangers for other legitimate ocean uses, and during and after the tests, navigational uses are precluded.

There is a further explanation for the failure to give attention to the military dimensions of ocean use. The most preoccupying types of conflict in the immediate past, that is, during the years since the end of the Cold War have involved ethnic, nationalist, and religious/secular tensions within existing sovereign states. It is true that efforts to intervene in such conflicts have had an oceanic dimension arising from the imposition of sanctions and embargoes under UN auspices, but these activities have been protected from any serious critical scrutiny because they have generally enjoyed the imprimatur of the United Nations.

Perhaps, in the end, the most significant explanation of all for this disregard of conditions for peace on the oceans in the future is the continued prevalence of the realist mind set within the maritime countries. A realist consensus dominates the political imagination of scholars, media, and bureaucrats, particularly in the domain of security planning. We can notice here the contrast between the statist structure of international society with respect to peaceful activities on and in the oceans, and the geopolitical structure pertaining to

security issues that results in unequal control and unilateral prerogatives for those few states with naval and air capabilities that extend beyond the local imperatives of territorial defence. In this respect, the geopolitical attachment of leading maritime powers to their freedom of action on the oceans is so firmly entrenched as to have the aura of being beyond the pale of responsible challenge, and as such should be accepted without question as a given, a part of the reality within which international political life unfolds. In my view, such a blinkering of inquiry is not healthy, implying that only when some awful breakdown of maritime order occurs in the future will proper attention be given to arguments for international reform. It is useful to recall that the most dramatic encounter of the Cold War, replete with apocalyptic implications for the entire world, was played out by the contending superpowers on the high seas in the course of the Cuban Missile Crisis in 1962. We will never know what might have happened if the Soviet Union had not backed down, despite their rather traditional statist claim of a right to supply weaponry to a friendly government, that is, Cuba, that was under threat of attack. But we do know that the superpower leaders, once the crisis atmosphere cleared, realized how close they came to catastrophe, and did take several prudential steps to avoid the repetition of such an incident. Yet this entire process of adjustment was a matter of discretion as international law supplied no constraining guidelines even with respect to the deployment of nuclear weapons on naval vessels.

It is helpful to recall that prior to World War I in Europe the grounding of "peace" in the balance of power mechanism was similarly taken for granted by all "responsible" opinion, and thus effectively sheltered from criticism. Are we then doomed to await oceanic catastrophes before we are allowed even to discuss the need and desirability of far stricter standards governing distant naval activities? Can we continue to believe that this unrestricted use of the oceans to project a given country's military power at great distances from national territory is consistent with the international law and Charter effort to restrict uses of force to exercises of self-defence or in furtherance of United Nations undertakings? Of course, the legal and political argument can become complicated if power projection on the oceans is linked to the security roles of defensive alliances and deterrence, as well as with anti-piracy and anti-terrorist activities that depend heavily upon the capabilities of these same few maritime powers. Part of the complexity arises because of the failure of the United Nations system to ensure the security of vulnerable states around the world, thereby often leaving the latter with the choice between seeking protection from a distant power or seeking to augment its own military capability in a manner that interferes with national priorities associated with the pursuit of development goals. But even conceding these functions for global navies, the difficulty remains that under the current mandate to exercise freedom on the high seas no distinction is drawn between constructive world order activities and traditional interventionary diplomacy, which it should be noted, even after the end of colonialism, moves predominantly from North to South. In this era of increasing globalization there is also a strong, yet questionable, link between the dominant priorities of the world economy and the custodial role of military power as protector of the interests of global capital. Such a link was evident in the Gulf War, although it does not by itself explain the strong response fashioned to reverse Saddam Hussein's aggressive move in 1990 against Kuwait.

Stepping back momentarily from our concern with military activity, it seems useful to reflect briefly upon the contemporary impulse to bring law to bear more ambitiously on other aspects of ocean use. The main cumulative explanation for this development has been the intensifying pressures exerted by the increased quantity and the changing character of peaceful uses. These pressures have fundamentally altered the circumstances of ocean use from one of abundance to one of scarcity. Under conditions of abundance the capacity to accommodate use and to reconcile diverse use far exceeds the total volume of use and places no great strain on the laissez-faire character of the system. Under such conditions, no very precise set of regulatory standards are needed. As a condition of scarcity emerges, however, various ocean uses encroach upon capacity, causing damage, threatening various dimensions of sustainability and the overlap of uses increasingly accentuates incompatibilities, as when ocean dumping of wastes endangers fishing. Under these conditions restraints on certain forms of use are needed, and a careful delineation of the relationship among uses and of the allocation of responsibility for harmful effects becomes imperative. The evolution of the law of the seas, culminating in UNCLOS III, has responded impressively to this change of circumstances even if the pattern



of adjustment has disappointed some of the more idealistic hopes that this occasion of momentous legal reform would encourage the negotiators to adopt a more community-oriented approach to sharing those benefits of ocean use that remained largely untapped, especially the prospect of seabed mineral wealth.

In my view, the objective change in conditions that pertains to military uses is even greater in its actual and potential impact than is the case with regard to civilian use. Long-range missile technology and nuclear weaponry put all countries permanently at severe risk from military activities on the oceans, and make them vulnerable to catastrophic accidents or to long-term problems that might arise from ocean dumping, nuclear weapons testing, naval missiles, and damage done to reefs and continental shelves. The original rationale for the extension of territorial sovereignty over a coastal band of waters was based on the range of shore artillery, that is, there was a sense that all states should be protected defensively to a degree from offshore military harassment by naval powers. Despite enlarging the band of territorial waters from three to twelve miles there is now no longer any protection accorded to non-naval powers that are subjected to coercive diplomacy mounted from the seas. The case, in other words, for greater regulation of military activities on the oceans in response to these technological changes seems overwhelming, especially the need for a new balance both between the freedoms of maritime powers and the defensive security and sovereign rights of other states and between the freedoms of maritime powers and the wellbeing of the global community as a whole.

My preliminary conclusion, then, is that despite comparable changes in conditions, military activities on the oceans have not been regulated in a manner remotely comparable to the restrictions imposed on nonmilitary uses of the oceans over the course of the last several decades, and that maritime powers continue to insist on retaining their "freedom" to use the oceans in any manner that accords with their national security and hegemonic conception of national interests. In effect, the broad maritime claim is to use the oceans in much the same manner that territory under sovereign control has been used, and this has traditionally included the freedom to send their navies to the four corners of the globe on missions of contemporary gunboat diplomacy. Representatives of the military in these leading naval powers are quite unabashed in their assertion of these expectations.<sup>3</sup> As one respected commentator, Giulio Pontecorvo, expresses this feature of the regulatory framework in the context of the long negotiations that finally led to the 1982 Convention: "The military interests of the US and SU set limits on what the Conference could decide....The superpowers just would not accept any limitation on what they regarded as their military necessities."

The strength of this military expectation is evident in the maintenance of "freedoms" for naval operations in relation to Exclusive Economic Zones and to transit of warships through international straits; the small concessions to constraining military activities that arise from widening the width of territorial waters to 12 miles and the retention of the requirement that submarines in transit through territorial waters travel on the surface of the water are not seriously inhibiting. This freedom of maritime powers to operate in the EEZ means, among other things, the right to emplace structures and electronic devices on the continental shelf of foreign countries without obtaining their permission. This military ethos is so strong in relation to the oceans that two respected specialists on the law of the oceans, R.R. Churchill and A.V. Lowe, express a conviction that legal inhibitions are not likely to stand up against military pressures: "The only thing that can be said with

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<sup>3</sup> "From the standpoint of national defence strategy, the LOS Convention provides the legal underpinning to naval forward presence, which, in turn, supports our ability to maintain our security alliances, to respond to regional contingencies, and to keep pace with potential shifts in the threats to peace and security." Cf. William L. Schachte, Jr., Judge Advocate General Corps, US Navy Department of Defence Representative for Ocean Policy Affairs, "The Value of the 1982 UN Convention on the Law of the Sea—Preserving our Freedoms and Protecting the Environment," in Alastair Couper and Edgar Gold, eds., *The Marine Environment and Sustainable Development: Law, Policy, and Science*, Honolulu, Hawaii: The Law of the Sea Institute, University of Hawaii, 1993, pp. 93-114, at 95.

confidence is that it is most unlikely that major naval powers will cease from the use of the seas for military exercises and the deployment of such (sonar surveillance) systems, no matter what the Convention might say.”<sup>4</sup>

One further aspect of this defining reality is the extent to which the nontreaty portion of the law of the seas is evolved by state practice that is effectively asserted. That is, a powerful state posits its right to engage in contested naval activity, and despite interference with the freedoms of others or the potential harm to the environment, there is a tendency to base future rights on the previous assertion of effective claims, or as Michael Reisman has put it, on “incidents” in the past that qualify as “precedents” or as “state practice.” One of the few partial exceptions has been the legal challenges recently directed at nuclear testing, most recently involving the 1995 French test series, but even here, in the face of undivided regional opposition and widespread condemnation, the French claims have been tacitly or openly endorsed by the other major maritime powers, maintaining a solid front on military prerogatives as remaining beyond effective legal or political challenge.

There are several dimensions of concern that arise from this continuing discretion claimed by leading states to use the oceans to serve their national security policies. First of all, there is an alarmingly high level of militarization that includes the use of the oceans for purposes of nuclear weapons deployment. As of 1991 there were 9,100 strategic nuclear warheads associated with naval activities, the majority of which were deployed on 106 missile-carrying submarines belonging to the five declared nuclear states, but many nuclear warheads were also carried on surface ships that entered the ports of many countries in all parts of the world. Although not officially disclosed, there are indications that most, if not all, strategic nuclear warheads, have been removed from surface ships in recent years. In addition, there are, or have been, many “tactical” nuclear weapons carried on surface ships, including cruise missiles with relatively short ranges. Although these numbers have been reduced by agreements and unilateral downsizing since the end of the Cold War, there remains a permanent nuclear weapons presence in the oceans the extent of which is shrouded in secrecy, as are rules of engagement that disclose the intended patterns of use in circumstances of conflict and crisis.

This presence would pose severe dangers even if the weapons are never to be used. Joshua Handler writes that “[f]ive nuclear-powered submarines with seven nuclear reactors and some thirty-eight nuclear warheads have sunk in the Atlantic because of accidents.” Further, Handler reports that as many as 16 nuclear-powered reactors have been deliberately dumped in the oceans, 15 by the former Soviet Union, and that many accident-prone nuclear-powered military vessels roam the oceans subject only to the regulatory authority of their own government, although posing various dangers to the community as a whole, as well as to the living resources of the oceans and its environmental quality. These dangers are aggravated by the veil of secrecy that covers naval activities, including mishaps and the discretion to deploy inadequately tested high-risk technologies.

Some treaty initiatives have attempted to diminish certain widely acknowledged specific risks. Perhaps the most consequential effort has been to restrict, and soon prohibit any type of nuclear weapons testing in the oceans. The Limited Test Ban Treaty of 1963 was at the time a partial breakthrough, prohibiting testing in the atmosphere, in outer space, and under water; the benefit of the treaty was diminished as a result of the refusal of either France or China to become parties or to respect the constraints imposed. The 1971 Treaty on the Prohibition of the Emplacement of Nuclear Weapons and Other Weapons of Mass Destruction on the Seabed and the Ocean Floor and in the Subsoil Thereof imposes one set of important outer limits on the nuclearization of the oceans, although again without the participation of France and China. Additionally, during the Cold War bilateral agreements between the two superpowers sought to improve communications during crises and to contain incidents that occurred on or above the high seas. Another type of attempt by non-nuclear countries

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<sup>4</sup> Churchill and Lowe, *The Law of the Sea*, Manchester, UK: Manchester University Press, rev. ed., 1988, p. 311; see also the Submittal Letter from the Secretary of State to the US President, 23 September 1994, US Department of State Dispatch Supplement, February 1995, pp. 2-53, at 16-17.

has been to establish nuclear free zones on a regional basis as has been the case with the Treaty of Tlatelolco (1967) in Latin America that commits parties to prohibit testing, deployment, and use within the region, and the Treaty of Rarotonga (1985) that prohibits testing and stationing of nuclear weapons within a wide expanse of the Pacific, and leaves it up to the parties as to whether to follow the lead of New Zealand, and restrict port visits of naval vessels that will not confirm the absence of nuclear warheads on board. Whether nuclear powers will respect these zones or not is doubtful, especially with respect to the movements and deployment of their nuclear submarines, and given the range of strategic missiles, it almost doesn't matter.

Is this general situation a cause for concern? I think it is in relation to current conflict situations and, definitely, with respect to the future of peaceful governance of the oceans. Whether much can be done to alter these realities in the near future is another matter. A first step, however, is to acknowledge the problematic character of the prevailing complacent view that a peaceful future for the oceans can be assured by universal adherence to the 1982 Convention or even as a result of concrete valuable steps such as adherence to a Comprehensive Test Ban by all nuclear weapons states, an outcome anticipated to occur by the end of 1996. There are a number of serious difficulties that cast a dark shadow across the prospect for peaceful uses of the oceans:

- (1) Secrecy with respect to national security operations on the oceans, including those involving nuclear weaponry;
- (2) Absence of safety and accident-prevention regulations pertaining to virtually all naval operations, which enjoy comprehensive immunities retained by the LOS Convention in Articles 30-32;
- (3) Primacy accorded to national security imperatives when in opposition to other political, moral, legal duties;
- (4) Absence of regulation of military deployments, exclusionary zones, and arms transfers through and over the oceans;
- (5) An international law of war framework that is badly outdated in relation to the oceans; even this anachronistic framework consists of very old authoritative written instruments, and these are only in the form of very general guidelines for a limited number of circumstances, in the comparatively archaic circumstances of 1907; as of 1995, the 1907 law of naval warfare seems primitive and fragmentary, and the failure to attempt even periodic updates expresses the reluctance of naval powers to subject their freedoms to restraints based on wider community concerns or their own practical considerations;
- (6) A supplemental reliance on customary international law and evolving patterns of state practice that is shaped very much by the dominant maritime states that resist any substantive limitations on their "freedoms" to use the seas for purposes of national security; and
- (7) A condition of increasing scarcity pertaining to the capacities of the oceans, perhaps most dramatically in relation to the living resources of the oceans; such conditions have already generated several serious conflicts, and have led to efforts by transnational social forces to

protect the ocean environment in the face of commercial pressures reinforced by military protection.<sup>5</sup>

What, then, in light of these factors, should be done to improve the prospect for peaceful oceans in the future? I think that at least five directions of effort are worthwhile, although it must be realized that the realist sources of resistance in the naval states make it quite unlikely that there will be any immediate progress.

The most obvious place to begin is by encouraging academic and civic groups to demystify the existing state of play relative to the oceans, and to depict the problematic character of leaving naval activity regulated according to guidelines formulated in 1907 when war itself was treated as matter of sovereign discretion, essentially beyond the scope of international law.

Second, in a manner already proposed by Elisabeth Mann Borgese, to extend the peacekeeping categories set forth in *An Agenda for Peace*, including especially "preventive diplomacy," to the range of conflict situations posed by contradictory claims involving the use of the oceans or the resources thereof.<sup>6</sup>

Third, the extension of efforts to achieve denuclearization of the oceans, building on the series of ad hoc arrangements that have so far been agreed upon, and yet going beyond the prospective Comprehensive Test Ban. The current test cases before the World Court on the legality of nuclear weaponry provide one wedge to enable raising broader questions.

Fourth, the possibility of prohibiting the use of the oceans for military actions, as well as contemporary forms of gunboat diplomacy as against so-called "rogue states," that cannot be justified before the Security Council as instances of self-defence or reasonable instances of international law enforcement (anti-piracy, anti-terrorist actions).

Fifth, and finally, the proposed convening in 1999 or 2007 of a new peace conference on the Hague model at the end of the last century to draft a new law for naval warfare, and more generally, a regulatory framework relevant to naval activities on the oceans. Given the revolutionary changes in all aspects of military technology and tactics, a continued reliance on a legal framework that is a century old seems quite absurd. The mere process of attempting this modernizing of the normative architecture, undertaken with significant success with respect to International Humanitarian Law in Geneva in 1949, and further extended in 1977, would have some beneficial effects in identifying the concerns relating to present regulatory arrangements governing military activities for the oceans. It should be noted that even before the extensive 1982 revision of the Law of the Sea, earlier more modest attempts were made in 1958 and 1960. Can military activities relating to the oceans continue to be treated as a sacred cow beyond the reach of regulation as we approach the threshold of the 21st century?

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<sup>5</sup> Cf. Generally Thomas F. Dixon, "Environmental Scarcities and Violent Conflict," *International Security* 19(1) (Summer 1994), pp. 5-40.

<sup>6</sup> See Borgese, *op. cit.*, pp. 115-93.

# THE PEACEFUL PURPOSES RESERVATION OF THE UNITED NATIONS CONVENTION ON THE LAW OF THE SEA

*Boleslaw A. Boczek*

## Introduction

Referring, in his *Agenda for Peace*,<sup>1</sup> to the opportunities offered by the end of the Cold War to strengthen international peace and security, the Secretary-General of the United Nations emphasized that the task of securing peace must engage the energy and attention of all components, agencies and programmes of the United Nations. "Each has," he noted, "in a balanced scheme of things, a role and a responsibility."<sup>2</sup> Surprisingly, even though the oceans and their legal regime play an important and perhaps even a crucial role in the "balanced scheme of things" on this planet, the entire *Agenda* does not contain one mention of the law of the sea and its potential contribution to the implementation of the Secretary-General's design for peace.<sup>3</sup> This omission is especially remarkable in view of the fact that the peaceful use of the oceans has been recognized as a fundamental objective of the UN Convention on the Law of the Sea of 1982 which entered into effect on 16 November 1994.<sup>4</sup> Moreover, the peaceful purposes clauses of the Convention may eventually, in the perspective of time, be viewed as a turning point in the perception by the international community of the peacetime military uses of the oceans.

The relatively neglected topic of the so called peaceful purposes reservation of the Convention was on the agenda of *Pacem in Maribus XV* in Malta in 1987.<sup>5</sup> The present paper is designed to update the analysis of that date and re-examine its interpretation and conclusions in the light of the changed context of the post-Cold War world, the entry into effect of the Convention, and the Secretary-General's *Agenda for Peace*. Very little has been written since 1987 on the peaceful purposes reservation itself,<sup>6</sup> and the annual reports of the Secretary-General on the law of the sea, most of which have brief sections on "Peaceful Uses," do not contribute much to clarifying the peaceful purposes reservation, but focus on naval armaments and

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<sup>1</sup> United Nations, Report of the Secretary-General on an *Agenda for Peace—Preventive Diplomacy, Peacemaking and Peace-keeping*, Doc. A/47/277-S 2411, June 17, 1992, reproduced in 31 *International Legal Materials* 956 (1992), hereinafter referred to as "Agenda."

<sup>2</sup> Agenda, para.77.

<sup>3</sup> As a matter of fact, the sea is mentioned only once in the Agenda (Para. 54), namely in the context of peace-keeping, where the Secretary-General refers to member states making available air and sea-lift capacity to the Organisation.

<sup>4</sup> UN Doc. A/CONF. 62/122 (1982), opened for signature 10 December 1982, in effect 16 November 1994. Official text UN Sales No. E.83.V.5 (1983). Hereinafter referred to as "the Convention."

<sup>5</sup> See Boleslaw A. Boczek, "The Peaceful Purposes Reservation of the UN Convention on the Law of the Sea," 8 *Ocean Yearbook*, 329-61 (1989).

<sup>6</sup> Apart from short comments on the relevant articles of the Convention in *United Nations Convention on the Law of the Sea: a Commentary*, Myron Nordquist et al., eds. 5 vols. (1989-93), see, in Japanese, Taisaku Ikeshima, "The Notion of 'Peaceful Uses' of the Sea, with special Reference to the Clauses of UNCLOS," 16 *Hogaku Seijigaku Ronkyu* 139-84 (1993).

disarmament as debated in the UN Disarmament Commission, with emphasis on various confidence-building measures in the global, regional and bilateral context.<sup>7</sup>

Before proceeding to deal with the reservation clauses in the Convention, the paper will first summarily review the notion of peaceful purposes in the international instruments which adopted a peaceful purposes reservation prior to the legal regime of the Law of the Sea Convention. Subsequently, this study will proceed to ascertain any binding conventional and general (customary) rules of international law that govern military uses of the ocean in peacetime and impose restraints upon such uses independently of the Convention itself.<sup>8</sup>

### Antecedents

In its preamble, the Antarctic Treaty<sup>9</sup> recognizes that Antarctica shall be used “exclusively for peaceful purposes,” and lists—albeit not exhaustively—specific prohibitions largely demilitarizing the continent.<sup>10</sup> This allows one to conclude that in the Antarctic Treaty, the phrase “exclusively for peaceful purposes” means a complete demilitarization of Antarctica. Next, under the Outer Space Treaty of 1967<sup>11</sup> the peaceful purposes reservation governs only the moon and other celestial bodies, but not outer space as such.<sup>12</sup> Unlike the Antarctic Treaty, the specific prohibitions are exhaustively listed without an Antarctic Treaty-style broad prescription of “any measures of a military nature.” Yet, the Outer Space Treaty is generally construed to proclaim a complete demilitarization of the moon and other celestial bodies. Finally, following the famous UN General Assembly Declaration of 1970 which reserved the deep sea-bed “exclusively for peaceful purposes,”<sup>13</sup> the Sea-bed Arms Control Treaty of 1971,<sup>14</sup> while recognizing the common interest of mankind in the use of the sea-bed for peaceful purposes, does not clarify the phrase itself which, in any case, cannot be construed to mean “nonmilitary” purposes. Nor does the treaty contain any reference to the peaceful purposes reservation in its dispositive provisions, calling only, as a policy goal for the future, for continued negotiations to prevent an arms race on the sea-bed. Other treaties that use the phrase “for peaceful purposes,” such as the Non-

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<sup>7</sup> The annual law of the sea reports are reproduced in the documentary yearbooks *International Organizations and the Law of the Sea*, issued by the Netherlands Institute for the Law of the Sea (NILOS).

<sup>8</sup> This paper deals only summarily with the antecedents of the peaceful purposes provisions of the Convention on the Law of the Sea of 1982 and the conventional and customary restraints on military uses of the sea which are binding in any case, apart from and independently of the Convention. For a more extensive examination see Boczek (note 5), pp. 331-44.

<sup>9</sup> The Antarctic Treaty, 1 December 1959, 402 *UNTS* 71.

<sup>10</sup> Art. I (1).

<sup>11</sup> 27 January 1967, 610 *UNTS* 205.

<sup>12</sup> Art. IV (2).

<sup>13</sup> General Assembly Resolution 2749 (XXV), 17 December 1970, reprinted in 10 *International Legal Materials* 220 (1971).

<sup>14</sup> Treaty on the Prohibition of the Emplacement of Nuclear Weapons and Other Weapons of Mass Destruction on the Sea-bed and the Ocean Floor and the Subsoil Thereof, 11 February 1971, 955 *UNTS* 115, reproduced in 10 *ILM* 145 (1971).

proliferation Treaty of 1968<sup>15</sup> and the statute of the International Atomic Energy Agency of 1956<sup>16</sup> do not offer any clarification of the term. It must be concluded that no agreed interpretation of the notion of peaceful purposes had emerged prior to UNCLOS III and that it must be construed within the context and circumstances of each specific instrument.

The four Geneva Conventions on the Law of the Sea of 1958 do not include any peaceful purposes reservation, but in any case all peace-time military uses of the sea are subject to the general ban on the threat or use of force under Article 2(4) of the UN Charter. In this sense a peaceful purposes reservation has, since 1945, been implicitly recognized in its application to the activities of states in the oceans. In addition, under both conventional and customary international law there are further restraints upon such activities, going beyond the very general ban on the threat or use of force under the UN Charter.

A number of global, regional, and bilateral treaty restraints in the form of arms control and disarmament and confidence-building agreements set limitations, directly or indirectly, upon the naval arsenals of the parties concerned, as noted further on in this paper. Despite its gaps and ambiguities,<sup>17</sup> the already mentioned Sea-bed Arms Control Treaty of 1971 is an important global instrument limiting military activities in the oceans, whose significance lies primarily in its being intended as a step in negotiations leading to a more complete disarmament under effective international control. The modest restraints of the Sea-bed Treaty complement the earlier partial Test Ban Treaty of 1963 banning nuclear tests under water in all the ocean zones as well as in the atmosphere and outer space.<sup>18</sup> At the regional level, military uses of the sea are limited by the Tlatelolco Treaty of 1967 banning nuclear weapons in Latin America,<sup>19</sup> and the Raratonga Treaty of 1985 establishing a nuclear-free zone in the South Pacific.<sup>20</sup> Both these legal regimes are discussed in detail in special presentations at the present *Pacem in Maribus*. Furthermore, regional approaches to security and more peaceful oceans as well as the more recent bilateral United States-Soviet (Russian) disarmament measures will be referred to within the context of the post-Cold War changes and the UN Secretary-General's *Agenda for Peace* of 1992.

In the absence of any treaty restrictions, military uses of the oceans, both navigational and other, are governed by customary international law guaranteeing freedom of navigation and other lawful uses of the high seas, subject to the general proviso of reasonable regard to the interests of other states. The emergence of the exclusive economic zone (EEZ) in customary law prior to the entry into effect of the Convention in 1994, raised the controversial issue of military activities in a foreign EEZ. Against the position of most maritime nations, numerous developing countries contended that they had the right to restrain such activities in their

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<sup>15</sup> 1 July 1968, Art. IV(1), 729 *UNTS* 161, reproduced in 7 *ILM* 811 (1968).

<sup>16</sup> 26 October 1956, 276 *UNTS* 3.

<sup>17</sup> It leaves the 12-mile zone of territorial sea and contiguous zone (now territorial sea) outside of the scope of the treaty ban; it does not ban conventional weapons, and in fact bans a weapons system that is not likely to be developed. It does not limit the arms race by means of submarines and has no adequate verification provisions.

<sup>18</sup> 3 August 1963, 48 *UNTS* 43.

<sup>19</sup> Treaty for the Prohibition of Nuclear Weapons in Latin America, 14 February 1967, 634 *UNTS* 281.

<sup>20</sup> South Pacific Nuclear Free Zone Treaty, August 6, 1985, reproduced in 24 *ILM* 1442 (1985).

respective zones.<sup>21</sup> Equally controversial under customary international law is the issue of the military uses of the deep sea-bed beyond the claimed continental shelf.<sup>22</sup>

Today, with the Law of the Sea Convention in force, the question arises whether and to what extent its peaceful purposes provisions have affected the traditional right of states to military operations in the oceans. In a more general sense, what difference does it now make that the principle of the peaceful uses of the oceans is anchored in a treaty form? Some comments on this subject will follow after a brief examination of the peaceful purposes provisions of the Convention.

### **The Peaceful Purposes Reservation at UNCLOS III**

Compared with the heated debates on peaceful uses of the deep sea-bed in the Sea-bed Committee and the negotiations on the Sea-bed Arms Control Treaty, the debate at UNCLOS III on the peaceful purposes reservation was relatively subdued, eventually producing multiple references in the Convention but giving no definitions elaborating on the reservation in specific parts of the Convention.<sup>23</sup> Some guidance may, however, have been provided by Article 301 of General Provisions, entitled "Peaceful uses of the seas," as discussed further on in this paper.

The reservation for peaceful purposes constitutes a recurrent theme of the Convention which upholds it as a fundamental norm of the law of the sea in various areas of the ocean and for purposes of marine scientific research. The Preamble to the Convention proclaims as one of the Convention's objectives the establishment of a legal order for the seas and oceans which will promote their peaceful uses. In this spirit, the text of the Convention takes up this theme, stipulating peaceful uses for the following maritime zones and activities. First, in the shortest but perhaps most far-reaching article of the Convention (Art. 88) "the high seas shall be reserved for peaceful purposes." Second, through cross-reference of Article 58(2) this principle also applies to the EEZ, including its sea-bed and subsoil.<sup>24</sup> Third, under Article 141, the Area, that is, "the sea-bed and ocean floor and subsoil thereof beyond the limits of national jurisdiction,"<sup>25</sup> shall be open "exclusively for peaceful purposes." Consequently, under Article 143(1), marine scientific research there shall be carried out exclusively for such purposes; and installations to carry out activities in the Area shall also be used in this manner under Article 147(2)(d). Under Article 155(2) the Review Conference was to ensure the maintenance of all these principles. However, the new Agreement of 1994, which modified the sea-bed mining regime of the Convention, stipulates that the provisions of Part XI of the Convention relating to the Review Conference shall not apply.<sup>26</sup>

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<sup>21</sup> For a detailed analysis see Boleslaw A. Boczek, "Peacetime Military Activities in the Exclusive Economic Zone of Third Countries," in 19 *Ocean Development and International Law*, pp. 445-68 (1988).

<sup>22</sup> For arguments supporting the lawfulness of such uses see Tullio Treves, "Military Installations, Structures, and Devices on the Seabed," 74 *American Journal of International Law*, 808, 851-52 (1980).

<sup>23</sup> For details of this debate see Boczek (note 5), pp. 344-7.

<sup>24</sup> The reservation must also apply to the continental shelf beyond 200 miles which for purposes other than exploring and exploiting its natural resources must be considered high seas, covered by the reservation under Article 88.

<sup>25</sup> As defined in Article 1(1)(1).

<sup>26</sup> Agreement Relating to the Implementation of Part XI of the UN Convention on the Law of the Sea of 10 December 1982, open for signature 29 July 1994, Annex, Sec. 4; UN Doc. A/48/950 (1994).



Fourth, marine scientific research must also be exclusively for peaceful purposes.<sup>27</sup> Apart from the special case of the EEZ, the Convention has no rules specifically providing for peaceful uses in the internal waters, the territorial sea, and the archipelagic waters. However, all these waters are covered by the general provision of Article 301 entitled “Peaceful uses of the seas,” assuming that this provision has the same meaning as the specific peaceful purposes reservations elsewhere in the text of the Convention.

### Conflicting Interpretations

The peaceful purposes reservation of the Convention must be construed according to the principles of interpretation developed in the practice of international law. The main purpose of the process of interpretation should be ascertaining in good faith the intention of the parties in accordance with the ordinary meaning of the terms used in the Convention, both in their context and in the light of the Convention's object and purpose. The context must also include the preamble to the Convention<sup>28</sup> which recognizes the desirability of establishing a legal order for the oceans which will promote their peaceful uses. Any effect of future practice in the implementation will be noted later on. However, any interpretation of the Convention cannot be influenced by arguments used for purposes of earlier treaties which include peaceful purposes reservations, such as the Antarctic and Outer Space treaties which in their nature belong to arms control agreements. As noted by the UN Secretary-General, the Convention on the Law of the Sea, while explicitly upholding the peaceful utilization of the various areas of the sea as a fundamental norm, does not itself provide for disarmament measures.<sup>29</sup> This is of special importance for the interpretation of the high seas reservation under Article 88.

At UNCLOS III, the debate elicited a wide spectrum of views, from the extreme but rather exceptional position represented by Ecuador which interpreted “peaceful purposes” as meaning a complete ban on all military activities on the high seas,<sup>30</sup> to the interpretation of the reservation as simply denoting a use of the ocean consistent with the UN Charter and other obligations under international law.<sup>31</sup>

The “nonmilitary” interpretation obviously leads to a result which is manifestly unreasonable and conflicts with numerous other provisions of the Convention and established international practice. The Convention reaffirms the fundamental freedoms of the high seas, *inter alia* comprising freedom of navigation and overflight,<sup>32</sup> without any ban on navigation by warships or overflight by military aircraft. In numerous articles, it takes warships and military activities on the high seas for granted as a routine use of the sea.<sup>33</sup> Many coastal states possess naval forces of widely differing capabilities and, as noted by the UN Secretary-General, “the existence of such forces in the exercise of sovereign rights is legitimate.” Moreover, a ban on naval activities would deprive the UN collective security system and legitimate peace-keeping operations of

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<sup>27</sup> Arts. 240(d), 242(1), 246(3).

<sup>28</sup> Vienna Convention on the Law of Treaties, 23 May 1969, Art. 31(2), 1155 UNTS 331, reproduced in 8 *ILM* 679 (1969).

<sup>29</sup> United Nations, *General and Complete Disarmament—Study of the Naval Arms Race*, Report of the Secretary-General, UN Doc. A/40/535, para. 14.

<sup>30</sup> UN Conference on the Law of the Sea, 5 Off. Rec. 56.

<sup>31</sup> See, for example, statement by the US Delegate, *Ibid.*, 62.

<sup>32</sup> Art. 87(a)(b).

<sup>33</sup> See, among many other articles, Arts. 32, 95, 236, 19(2)(b)(e)(f); 298(1)(b).

necessary tools needed to restore and maintain international peace. Nevertheless, any naval activity on the high seas, and especially in a foreign exclusive economic zone, must be exercised with due regard for the interests of other states.

The interpretation of the peaceful uses of the sea as those consistent with international law is corroborated by contextual reference to Art. 301, adopted in 1980 with the other general provisions, which applies to all zones of the ocean and all states' activities in the zones. Under the heading "Peaceful uses of the seas" (rendered in the French version as "Use of the seas for peaceful purposes"), the article declares that:

In exercising their rights and performing their duties under this Convention, States Parties shall refrain from any threat or use of force against the territorial integrity or political independence of any State, or in any other manner inconsistent with the principles of international law embodied in the Charter of the United Nations.

According to this definition, clearly inspired by Article 2(4) of the UN Charter, but covering not only the "purposes and principles" of the Charter's Chapter I but all international law of the Charter, military activities consistent with this law, and in particular its ban on the use or threat of force in international relations and the rules on self-defense (Art. 51), are not prohibited by the Convention. Thus in the exercise of individual or collective self-defense, a state may use force on the high seas, within the limits of international law, to protect its armed forces, public vessels and aircraft.<sup>34</sup> The above interpretation has also been endorsed by the UN Secretary-General who, suggesting that Article 301 may provide guidance for interpreting the peaceful purposes reservation, concludes in his study of the naval arms race that "military activities which are consistent with the principles of international law embodied in the Charter are not prohibited by the Convention."<sup>35</sup> It should be added that the origins of Article 301 can be traced primarily to developing countries, some of which, at least in 1976, had interpreted peaceful uses as "nonmilitary" uses and initially wanted their proposal added to Article 88 on the high seas reservation.<sup>36</sup>

The interpretation according to Article 301 continues to represent the position of the United States in whose view:

None of [the] provisions [on peaceful purposes] creates new rights or obligations, imposes restraints upon military operations, or impairs the inherent right of self-defense enshrined in Article 51 of the United Nations Charter. More generally, military activities which are consistent with the principles of international law are not prohibited by these, or any other, provisions of the Convention.<sup>37</sup>

As a matter of fact, in the post-Cold War era, the US Navy appears to be the only world-wide naval force deployed in many key areas of the oceans as part of the US national security strategy as well as in support

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<sup>34</sup> *Ibid.*, para. 178.

<sup>35</sup> *Ibid.*, para. 188.

<sup>36</sup> UN Doc. A/CONF.62/L.53/Add.1, 1 April 1980.

<sup>37</sup> United States, President's Transmittal of the UN Convention on the Law of the Sea and Agreement Relating to Implementation of Part XI, 7 October 1994, reproduced in 34 *ILM* 1393, at 1446 (1995).

of UN-sponsored operations.<sup>38</sup> On the other hand, Russia ended naval deployments in the Mediterranean, the Persian Gulf, and the Indian Ocean, and much of its Black Sea Fleet, contested between Russia and the Ukraine, is rusting in its bases. The Baltic Fleet has been cut to one third of its former strength and many of its ships have been sold for scrap or to other countries.<sup>39</sup>

The problem with interpreting the peaceful purposes reservation according to Article 301 is that it incorporates wholesale into the law of the sea all the well known ambiguities and controversies in international law over such issues as threat or use of force, aggression, self-defense, intervention, and the like.

Invoking Articles 88 and 301 as well as the Preamble, a coastal state may object to a naval power's deployment in the state's region, perceiving such activity as a threat to its security and international peace, illegal under the Charter. But even if a foreign power's activity is not questioned as a threat, the state may invoke the general "due regard" clause of Article 87 on the freedom of the high seas, claiming that that activity constitutes interference with a peaceful use of the sea, for example by denying access to traditional fishing grounds or creating hazards to commercial shipping. As an additional argument, the affected state may invoke the spirit of the Convention, under the Preamble adopted to promote peaceful uses of the oceans. Furthermore, that state may argue that by placing the high seas reservation immediately following the article on the freedom of the high seas, the Convention somehow implies that the freedom of military activities must yield to claims of more peaceful uses.<sup>40</sup>

### Naval Powers and Coastal States Interests

Conflicts between the interests of naval powers and coastal states are especially sensitive in the EEZ to which the high seas peaceful purposes reservation also applies through the cross-reference of Article 58(1) in so far as it is not incompatible with Part V of the Convention governing the EEZ.<sup>41</sup>

At UNCLOS III the issue of peacetime military activities in a third country's EEZ—though not explicitly raised—divided the maritime powers, which insisted on full high seas rights in the zone, and numerous developing countries aspiring to more extensive rights in the EEZ, in particular the right to exclude foreign military activities from their respective zones. In a compromise but ambiguous solution, the Convention guarantees to all states in the EEZ freedom of navigation, overflight, laying of submarine cables and pipelines, "and other internationally lawful uses of the sea related to these freedoms, such as those associated with the operation of ships, aircraft and submarine cables and pipelines, and compatible with the other provisions of [the] Convention." While in the prevailing interpretation, this provision allows states to conduct military

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<sup>38</sup> Thus on 27 January 1995, 22 ships were in the Mediterranean; 20 in the Red Sea, Persian Gulf, and the Indian Ocean; 77 in the Pacific, 81 in the Atlantic; and 4 in the Caribbean. This does not include ships prepositioned with equipment in foreign waters and earmarked for the Marine Corps and the Army for use in time of emergency, Walter F. Doran, "An Operational Commander's Perspective on the 1982 LOS Convention," 10 *International Journal of Marine & Coastal Law*, 335, at 341, n. 224 (1995).

<sup>39</sup> Enc. Brit., *Book of the Year 1993*, 231; *The New York Times*, 27 November 1995, p. 8.

<sup>40</sup> See Ken Booth, *Law, Force and Diplomacy at Sea*, London: Allen & Unwin, 1985, p. 81.

<sup>41</sup> This issue is analysed in detail in Boczek (note 21). See also Stephen A. Rose, "Naval Activity in the EEZ—Troubled Waters Ahead?" 39 *Naval Law Review* 67-92 (1990). It must be added that the peaceful purposes reservation does not preclude the coastal state's right to use force as part of enforcement measures under Article 73 of the Convention, designed to ensure compliance with its laws and regulations enacted to protect its sovereign rights and jurisdiction in its EEZ.

maneuvers in a foreign EEZ (subject to the interests of other states, including the coastal state),<sup>42</sup> the language of Article 58(1) is ambiguous enough to allow claims that foreign military activities cannot be accommodated since they are incompatible with the high seas reservation for peaceful purposes. This position implies that consent to military maneuvers in the EEZ is among the residual rights vested in the coastal state, that is, the right to those uses of the sea which are not specified in the Convention. This idea is strongly opposed by maritime nations.<sup>43</sup> Also the Secretary-General of the United Nations in his report on the naval arms race seems to be reluctant to endorse the residual rights thesis, referring only to Article 59 of the Convention which provides guidelines for the resolution of conflicts regarding attribution of residual rights in the EEZ.<sup>44</sup> Under this article, such conflicts should be resolved on the basis of equity and in the light of all the relevant circumstances, taking into account the respective importance of the interests involved to the parties as well as to the international community as a whole.

Despite the apparent opposition at UNCLOS III to recognizing the right to foreign maneuvers in an EEZ, only Brazil, Uruguay, and Cape Verde made declarations on signing the Convention (reiterated by Brazil on ratifying it) to the effect that the Convention's provisions do not entitle other states to undertake military exercises or maneuvers in the EEZ, in particular those that imply the use of weapons or explosives, without the consent of the coastal state. The same declaration also reserves to the coastal state the exclusive right to construct and operate all kinds of installations and structures on the continental shelf, by implication also military installations and devices.<sup>45</sup> The right to emplace the latter in the EEZ is claimed by naval powers.

It is interesting that the Cape Verde and Uruguay declarations explicitly state that the enjoyment of international communication under the Convention excludes any nonpeaceful use without the consent of the coastal state, such as exercise with weapons (Cape Verde) or military exercises (Uruguay) respectively, or other activities which may affect the rights or interests of the coastal state. It further excludes the threat or use of force against the territorial integrity of the coastal state. The chances are that other developing nations which have not made similar declarations, will adopt the same position in cases of conflict over attribution of rights in the EEZ. In their respective national legislations, many states have followed or paraphrased the language of the Convention<sup>46</sup> which leaves enough latitude for a coastal state to contend that a foreign military activity in its EEZ falls within its competence as one not specifically attributed by the Convention or—alternatively—is not for peaceful purposes and consequently does not constitute an internationally lawful use of the sea under the Convention. Such an interpretation might be even more convincing in a case of unattributed nonnavigational uses, in particular emplacement of military devices or anti-submarine tracking systems, which

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<sup>42</sup> Art. 87(2), cross ref. Art. 58(1)(3).

<sup>43</sup> In reaction to declarations of Cape Verde and Uruguay claiming the right to regulate those uses of their respective EEZs which are not expressly provided for in the Convention, Italy stated in its declaration upon signature of the Convention that “according to the Convention, the coastal state does not enjoy residual rights in its exclusive economic zone, in particular, the rights and jurisdiction of the coastal state in such zones do not include the right to obtain notification of military exercises or manoeuvres or to authorize them.” *Law of the Sea Bulletin* No. 25 (June 1994), p. 31.

<sup>44</sup> Naval Arms Race Report (note 29), para. 219. Under Article 59 of the Convention, such conflicts “should be resolved on the basis of equity and in the light of all the relevant circumstances, taking into account the respective importance of the interests involved to the parties as well as to the international community as a whole.”

<sup>45</sup> See *Law of the Sea Bulletin* No. 25 (June 1994), pp. 11, 25. For Brazil, see also Law No. 8617 of 4 January 1993, in *Ibid.*, No. 23 (June 1993), pp. 17, 19, 37.

<sup>46</sup> See details in Boczek (note 21), pp. 452, 454.

could be banned as not associated with the operation of ships. Control of overflight of the EEZ by foreign military aircraft has also proved controversial in a number of situations.<sup>47</sup>

### Ambiguities

The wording of the English (but not French) text of the peaceful purposes reservation pertaining to the deep sea-bed area differs from that concerning the high seas in that it stipulates that the Area shall be open for use “exclusively” for peaceful purposes. It is tempting to suggest that because of the adverb “exclusively” the Area is subject to more stringent peace-related requirements, but the problem is purely semantic and relates to the drafting process in the relevant committee of UNCLOS III which copied the “used exclusively” phrasing model adopted at the denuclearization debates in the Deep Sea-bed Committee of the late 1960s and early 1970s.<sup>48</sup> Apparently the drafts on the high seas and the Area, which originated in two different committees, were not harmonized in the English text of the Convention. Hence “exclusively” adds nothing to the construction of Article 141 in the English version.

Historically, the deep sea-bed, proclaimed in 1970 as a common heritage of mankind, has been associated with a demilitarized status. However, the Convention does not give any clear answer to the question whether the common heritage principle allows military activities in the Area among other, not resource-oriented, activities. At this time, commercial sea-bed mining remains a matter of a distant and indeterminate future and interpretation of the peaceful purposes reservation for the Area will long remain a moot question, considering the fact that the Convention assumes the reality of resource-oriented activities in the Area and—in strict contextual interpretation—places the issue of peaceful purposes within the context of the relationship and accommodation between the “activities in the Area” and other, perhaps military, activities. But for those who start from the premise of the common heritage principle, a total demilitarization of the deep sea-bed is a logical consequence, and in this sense the peaceful purposes articles of Part XI are given the extreme “nonmilitary” construction. On the other hand, in a strict interpretation, the Convention does not ban military activities as such since the principles of the common heritage of mankind and the benefit of mankind as a whole apply only to the resource-related activities in the Area.<sup>49</sup> Accommodation between competing uses would have to be based on reciprocal reasonable regard. In the opinion of the United States, activities on the deep sea-bed, including military activities “may be conducted freely in accordance with principles of the Convention pertaining to the high seas, including the duty to have reasonable regard to other uses.”<sup>50</sup>

For the time being, however activities on the deep sea-bed are governed by the general requirement of Article 301 on the Peaceful Uses of the Sea which applies to all zones of the ocean. Hence, military uses that can reasonably be regarded as exceeding the criteria of “peacefulness” accepted in international practice, should be prohibited as a threat to international peace. As a result of the Sea-bed Arms Control Treaty, whose

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<sup>47</sup> See UN Div. of Ocean Affairs and the Law of the Sea, *The Law of the Sea—Practice of States* (1994), pp. 178-9. In 1987 Brazil made an unsuccessful effort to have the ICAO address the issue of such overflights over the EEZ.

<sup>48</sup> The French text uses the same wording in the two articles (88 and 141) and is itself inconsistent since “exclusivement” appears in Article 155.

<sup>49</sup> Art. 147(1)(3).

<sup>50</sup> US Dept. of State, “Commentary: The 1982 UN Convention on the Law of the Sea and the Agreement on Implementation of Part XI,” reproduced in 34 *ILM* 1400 (1995) at p. 1429.

prohibitions have been recognized even by nonparties,<sup>51</sup> emplacement of nuclear and possibly other weapons and military devices serving offensive purposes, cannot be regarded as a use for peaceful purposes.

### **Marine Scientific Research**

Under the Convention, marine scientific research shall be conducted “exclusively” for peaceful purposes; states and competent international organizations are required to promote international cooperation in such research “for peaceful purposes;” and, for research in the EEZ and on the continental shelf, coastal states whose consent is needed for the conduct of research by other states and international organizations, shall, in normal circumstances, grant such consent for projects to be carried out “exclusively” for peaceful purposes.<sup>52</sup> The concept of exclusively peaceful purposes is not defined, but it is reasonable to assume that it cannot be interpreted as research for “nonmilitary” purposes. Such construction would be unacceptable to maritime powers. Moreover, in view of the dual application of scientific knowledge it is not possible to draw a clear dividing line between “peaceful” and “military” research or “defensive” and “offensive” research. Although it is true that states asking permission to conduct research in a foreign EEZ must indicate the nature and objectives of the project, as stipulated by Article 248(a), this can in practice be circumvented.

### **Impact of the Changing International Scene**

It cannot be denied that irrespective of the construction of the peaceful purposes reservation in the Convention, one must take into account the spirit of the Convention which in its preamble calls upon the states to strive to achieve a legal order for the oceans that will promote their peaceful uses. During the Cold War, the two ideologically opposed superpowers projected, through their naval presence, their strategic nuclear power worldwide to the remotest regions of the ocean space. Within such a political-strategic context, the fundamental objective of the Convention’s preamble had little chance of success. The collapse of the Soviet Union and the end of the Cold War have opened new prospects for reducing, primarily but not exclusively at the strategic nuclear level, the military arsenals of the former adversaries, and thereby also for making the oceans more “peaceful.” While the end of the confrontation by no means signifies a new era of world peace and stability—with many coastal states acquiring small but sophisticated naval capabilities which may be misused for nonpeaceful purposes—the end of the Cold War produced a most welcome breakthrough in the process of nuclear disarmament, encompassing the ocean environment as well.

### **Three Categories of Restraints**

Over the past several years a series of unprecedented bilateral arms control and disarmament agreements between the United States and the Soviet Union (Russia) has committed these powers to decommission or destroy large numbers of missiles and nuclear warheads. Furthermore, a number of confidence-building measures contributed to further reductions in their naval arsenals. At the multilateral, UN level, the Disarmament Commission, which declared the 1990s the Third Disarmament Decade, turned its attention to naval arms control and disarmament, including conventional arsenals.<sup>53</sup> Furthermore, in 1989, the

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<sup>51</sup> As of 28 September 1989 at the close of the third review conference, a total of 105 states had signed the Treaty and 82 had acceded to it. 26 *UN Chr.* December 1989, p. 33.

<sup>52</sup> Arts. 240(a), 242(1), 246(3).

<sup>53</sup> 26 *UN Chr.*, September 1989, pp. 36-7.

Third Review Conference on the operation of the Sea-bed Treaty ended on an optimistic note, encouraged by the positive climate of the declining Cold War.<sup>54</sup> The following paragraphs will very summarily review the disarmament and confidence-building measures which have already contributed to reducing the military dimension of the peace-time uses of the oceans. In general, three categories of arms control and disarmament measures are relevant also for the oceans: quantitative restraints; qualitative and technological restraints; and geographical and/or mission restraints.<sup>55</sup> Various confidence-building measures, which form part of preventive diplomacy as defined in the Secretary-General's *Agenda for Peace*,<sup>56</sup> have been applied to reduce the likelihood of conflict originating in ocean space.

### *Quantitative Restraints*

The quantitative restraints, dating back to the Washington Naval Treaty of 1922, represent a direct means of reducing competitive accumulation of arms in the oceans. The US - Russian strategic nuclear arms control negotiations led to the Strategic Arms Reduction Treaty (START I) in 1991 and an agreement on reciprocal nuclear force reductions, START II, formalized in 1994 (still awaiting ratification by Russia). The quantitative reductions are to proceed in two stages, both relevant for naval disarmament. In the first stage, to be completed by 1999, the strategic warheads of the two powers are to be cut by 30 percent, with a limit of 2,160 set on SLBM warheads. The second stage is intended to go much further, with some 70 percent of the pre-START warheads to be eliminated by 2003 and a maximum of 1,750 SLBM to be allowed. While considerable numbers of SLBM with nuclear warheads would still remain in the oceans, with other nuclear powers standing outside of these disarmament measures, the US-Russian agreements have definitely launched a process of progressive reduction of naval nuclear arsenals. Ideally, this process ought to lead to a complete elimination of nuclear weapons from the oceans.

The bilateral treaties between the United States and Russia were complemented by confidence-building measures in the form of unilateral pledges of various limitations on nuclear armaments, conditioned on reciprocal reductions. Thus in 1991 the United States announced, among other measures, elimination of 850 antisubmarine warfare nuclear depth charges carried by carrier- and land-based naval aircraft and nuclear warheads on 400 submarine-launched cruise missiles on submarines and surface ships. In return, the Soviet Union promised, among other measures, to eliminate all tactical nuclear weapons on surface ships and submarines, including depth charges and missile and torpedo warheads.<sup>57</sup> Moreover, in 1994, as part of its nuclear policy review, the United States decided to remove from all surface ships and carrier-borne aircraft the technical capacity to carry Tomahawk nuclear cruise missiles. Also, instead of previously planned 18 Trident ballistic missile submarines, the force will be capped at 14, each with 24 missiles.<sup>58</sup>

Unlike the nuclear arsenals, conventional naval forces have not been limited by any treaties. On the other hand, it must be borne in mind that, while the US conventional naval strength has not been seriously affected by the end of the Cold War, the collapse of the Soviet Union caused a virtual decimation of the Soviet Navy, with the Black Sea and the Baltic Sea fleets suffering most, many units rusting in harbours or sold for

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<sup>54</sup> *Ibid.*, December 1989, p. 33.

<sup>55</sup> Naval Arms Race Report (note 29), paras. 282-6. See also generally Sverre Lodgaard, ed., *Naval Arms Control*, Oslo: IPRI, 1990.

<sup>56</sup> *Agenda*, para. 24.

<sup>57</sup> *Enc. Brit.*, *Book of the Year 1992*, pp. 230-1.

<sup>58</sup> *Enc. Brit.*, *Book of the Year 1995*, p. 234.

scrap, the Black Sea fleet a subject of dispute with Ukraine, and construction of most new ships halted.<sup>59</sup> It remains to be seen, however, how long this virtue out of necessity will endure. Unilateral reductions of naval forces, related to the end of Cold War, have been undertaken by other countries, for example Japan.<sup>60</sup> On the other hand, as warned by the Secretary-General in his *Agenda for Peace*, “conventional arms continue to be amassed in many parts of the world.”<sup>61</sup> As a result of their new responsibilities many coastal states have been developing their naval capabilities, acquiring sometimes sophisticated military hardware used to police their respective jurisdictional zones. In this regard, the Secretary-General warns that the widened national responsibilities should not be misused as a justification for the expansion and utilization of naval forces.<sup>62</sup>

### ***Qualitative Restraints***

Qualitative or technological restraints have not been a major dimension of the post-Cold War efforts to demilitarize the oceans. Apart from the already mentioned unilateral elimination of certain types of naval weaponry and capabilities, one must note the fact that—as stated by the Third Review Conference of the Seabed Treaty—no information had been presented to the Conference indicating that major technological developments had taken place since the second review in 1983, which affected the operation of the Treaty.<sup>63</sup> Still, the question of technological developments received a great deal of attention at the review of 1989 and the Secretary-General was asked to report at three-year intervals until the Fourth Review (scheduled for 1996) on technological developments relevant to the Treaty.<sup>64</sup>

### ***Geographic and Mission Restraints***

In his report on the naval arms race the Secretary-General noted that progress in negotiating geographic and mission restraints “cannot proceed in a political vacuum but is subject to the general pressures and climate of international relations between States.” Considering the vastly improved international climate (at least at the world strategic level) in the post-Cold War era, the chances for progressively expanding the existing restraints of this category and agreeing on new confidence-building measures in the naval context have become more realistic.

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<sup>59</sup> Between 1985 and 1994 the number of aircraft carriers and cruisers in the Russian navy fell from 45 to 27; that of submarines, from 279 to 120; and the number of destroyers and frigates was reduced from 263 to 134. *Jane's Fighting Ships, 1984-85*, pp. 150-1, cited in Naval Arms Race Report (note 29), Table 2. International Institute for Strategic Studies, *The Military Balance 1994-95*.

<sup>60</sup> *The New York Times*, 29 November 1995, p. 5.

<sup>61</sup> *Agenda*, para. 12.

<sup>62</sup> See *Reports of the Secretary-General on the Law of the Sea*: for 1985, 27 November 1985, para. 33, UN Doc. A/40/923; for 1990, 19 November 1990, para. 36, UN Doc. A/45/721.

<sup>63</sup> Final Declaration of the Third Review Conference, Geneva, 21 September 1989, in 14 *UN Disarmament Yearbook* (1989).

<sup>64</sup> *Disarmament Yearbook* (note 65), Ch. XIV.



### ***Nuclear Weapons-Free Zones and Zones of Peace***

Among the geographical restraints, nuclear weapon-free zones and zones of peace have been on the agenda of the UN General Assembly, the Disarmament Commission, and other bodies for quite some time. Apart from the partial denuclearization of the ocean under the Antarctic Treaty, the pioneering Treaty of Tlatelolco of 1967 establishing a nuclear-free zone in Latin America and the Rarotonga Treaty of 1985 on the South Pacific Nuclear-Free Zone are the only treaty-anchored regional legal regimes with established nuclear-free ocean zones. It is worth noting that in 1987 China and the Soviet Union ratified Protocols 2 and 3 of the Rarotonga Treaty and most recently the United States, the United Kingdom, and France declared their willingness to accede to them in 1996.

The possibility of establishing nuclear-free zones in other regions, including the regional sea areas, has been studied for Africa, the Middle East and South Asia. Proposals for the creation of such zones in the Baltic and South-East Asia have also been considered.<sup>65</sup> A consolidation of the Tlatelolco region and the Caribbean is on the UN agenda.<sup>66</sup>

Parallel with the nuclear-free zones, there is another type of regional zone going beyond the goal of strengthening peace and security, and that is the zones of peace. Covering, in addition to land, large areas of the ocean, these zones are designed to focus on cooperation of the regional states in a variety of tasks. Their legal status, however, remains rather vague and is not yet based on any treaty arrangements. Two major zones of peace have been declared by the UN General Assembly: the Zone of Peace of the Indian Ocean in 1971<sup>67</sup> and the Zone of Peace and Cooperation of the South Atlantic, declared in 1986.<sup>68</sup> Expansion of the concept of such zones has recently attracted a good deal of attention and the problem of their rather indeterminate legal status is being explored by the United Nations. At the same time, in 1991 an initiative of the states parties to the Tlatelolco Treaty laid foundations for interzonal cooperation between the Latin American nuclear-free zone and the zone of peace of the South Atlantic.<sup>69</sup> In terms of peace on the oceans, regional arrangements, such as peace zones, may turn out to be most useful considering that for numerous countries security at sea is endangered primarily by tensions relating to regional matters pertaining to their jurisdictional zones.

Restricting military activities in certain marine zones is another example of geographical restraints. In this respect a significant development took place at the Third Review Conference of the Sea-bed Treaty in 1989. All the parties, and in particular the nuclear powers, declared that they had not emplaced any nuclear weapons or other weapons of mass destruction on the sea-bed outside the zone of the Treaty's application. It is generally understood that the unilateral statements of the parties refer to what are now the territorial waters and thus amount to a *de facto* extension of the geographical scope of the Treaty.<sup>70</sup>

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<sup>65</sup> *Comprehensive Study on Nuclear Weapons, Report of the Secretary-General. 2. Nuclear-Free Zones and Zones of Peace.* UN Doc. A/45/373, 19 September 1990.

<sup>66</sup> 32 *UN Chr.*, March 1995, p. 77.

<sup>67</sup> UN Doc. A/Res. 26/2832 and a series of other resolutions.

<sup>68</sup> UN Doc. A/Res. 41/11 and a number of subsequent resolutions.

<sup>69</sup> UN Doc. A/Res. 46/19.

<sup>70</sup> Final Declaration (note 65), Art. II.

## Confidence-building Measures

In his *Agenda for Peace* the Secretary-General stressed preventive diplomacy, understood by him as employment of diplomatic methods to ease tensions before they result in conflict.<sup>71</sup> He emphasized that preventive diplomacy required measures to create confidence. Within the naval context, his predecessor had noted that confidence-building measures, while supporting disarmament initiatives by reducing causes of tension and mistrust, cannot be a replacement for real disarmament action.<sup>72</sup>

Much attention has been paid by the Secretary-General to confidence-building measures in his annual law of the sea reports. As a matter of fact, in a specific reference to the peaceful purposes clauses in the Convention, he stressed that developing confidence-building measures was a prerequisite for ensuring the primary "peaceful uses" purpose of the Convention.<sup>73</sup> Confidence-building measures have also been a subject of substantive consultations conducted within the context of the Disarmament Commission in order to identify objectives and formulate more concrete measures in the naval sector in harmony with international law including the Convention.<sup>74</sup>

In the naval sphere, confidence-building measures can be political or/and military; they can be negotiated multilaterally or bilaterally and even adopted unilaterally.<sup>75</sup> Some of the already mentioned unilateral quantitative restraints in naval nuclear armaments, adopted by the United States and the Soviet Union (Russia) were confidence-building measures. They proved to be an effective stimulus for reciprocating an equivalent or better response and in advancing the cause of nuclear disarmament at sea.

First initiatives on confidence-building measures at sea date back to the Cold War era. At the regional level, under the rules adopted by the Conference on Security and Cooperation in Europe (CSCE, now elevated to the status of an organization), prior notification of major military movements was required. This applied to movements exceeding a total of 25,000 troops, and it included naval forces as well. Following the end of the Cold War, these measures continued in force. They have been expanded to include notification of major naval movements, presence of observers during naval exercises, and even joint exercises with the participation of formerly hostile navies.

### *Bilateral Agreements*

Bilateral agreements to prevent incidents between naval forces on or over the high seas are a major category of confidence-building measures. The first of such agreements was concluded between the United States and the Soviet Union as early as 1972.<sup>76</sup> Gradually, with the relaxation of tensions in the waning years of the Cold War, numerous bilateral agreements of this kind were entered into between the Soviet Union and other countries, including the United Kingdom (1986), West Germany (1988), France (1989), Italy (1989), Canada (1989), Netherlands (1990), and others. In the US-Russian relations the incidents agreement of 1972

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<sup>71</sup> Agenda, para. 23.

<sup>72</sup> *Naval Arms Race Report* (note 29), paras. 296-8. See also generally *UN Comprehensive Study on Confidence Building Measures*, UN Publ. No E 182 IX 3.

<sup>73</sup> *Report of the Secretary-General on the Law of the Sea*, 1991, 5 December 1991, para. 42, UN Doc. A/46/724.

<sup>74</sup> UN Doc. A/CN.10/83, 102 and 113.

<sup>75</sup> See the categorization in *Naval Arms Race Report* (note 29), para. 298.

<sup>76</sup> For the text of this Agreement of 25 May 1972, see 11 *ILM* 775 (1972).

was subsequently supplemented by the Agreement of 1989 on the Prevention of Dangerous Military Activities which applies to activities at sea as well as on land.<sup>77</sup> The incidents prevention agreements contain rules on maneuvers through areas with dense shipping traffic, in sea lanes, and traffic separation schemes. Prior notification of action constituting a threat to the safety of navigation or aviation also forms part of such agreements, some of which follow the IMO Collision Regulations. Incidents at sea agreements have also been proposed for the sensitive South China Sea and the South-East Asian marine region in general. More recently there have been calls for a regional approach, with proposals for a multilateral agreement which would enhance safety at sea and reduce chances of conflict without diminishing freedom of navigation.<sup>78</sup>

Free flow and exchange of information and transparency in armaments and their transfer are important measures to build up confidence as stressed by the Secretary-General in his annual law of the sea reports and the *Agenda for Peace*. The matter has been a major item on the agenda of the Disarmament Commission. In this connection, the UN General Assembly created a Register of Conventional Arms as of 1 January 1992. Warships are included among other categories of armaments.<sup>79</sup>

A significant bilateral confidence-building agreement in a sensitive part of the ocean was concluded between the United Kingdom and Argentina in 1990. The two former belligerents agreed to consult on, and exchange information about, each other's military movements and established rules for reciprocal behaviour of naval and air units. They also committed themselves to prior notification of naval and air movements carried out within 80 miles of coasts, and provided for mutual agreement concerning any movement closer than 15 miles.<sup>80</sup>

It is hoped that all the above measures of disarmament and confidence-building in the naval context will contribute to further progressive development of the peaceful uses principle of the Convention in the post-Cold War era. One could recommend a number of further measures that would widen the scope of the restraints already initiated. In the quantitative nuclear field, all the nuclear powers should put a freeze on manufacture of nuclear naval weapons; gradually limit the numbers of their SLBMs and ban the sea-launched cruise missiles; eliminate from the seas their tactical nuclear weapons; and finally undertake a gradual reduction in their conventionally armed ships, eventually limiting them to a coastal fleet for policing their maritime zones. In terms of geographical restraints, establishment and expansion of nuclear-free and peace zones in regional seas; removal of missile launching submarines from extensive areas of patrol; various limitations on naval exercises and maneuvers; and reducing foreign naval bases, would be among the major recommendations. Among the confidence-building measures, adopting a multilateral agreement to prevent incidents at sea; prior notification of naval movements; presence of observers at exercises; and restraints on the use of certain weapons systems, deserve attention.

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<sup>77</sup> Reproduced in 28 *ILM* 877 (1985). See also Timothy J. Nagle, "The Dangerous Military Activities Agreement: Minimum Order and Superpower Relations on the World's Oceans," 31 *Virginia Journal of International Law* (1990), pp. 125-44.

<sup>78</sup> See the working paper submitted by Sweden to the UN Disarmament Commission, UN Doc. A/CN.10/121, 10 May 1989.

<sup>79</sup> Res.46/36 L, 9 December 1991. See also Herbert Wulf, "The United Nations Register of Conventional Arms," *SIPRI Yearbook* 1993, pp. 533-44; and Hendrik Wagenmakers, "The UN Register of Conventional Arms: A New Instrument for Cooperative Security," 23 *Arms Control Today* No. 3, 1993, pp. 16-21. On naval arms transfer see Ian Anthony, *The Naval Arms Trade*, Oxford: Oxford University Press, 1990. According to the second annual report of the UN Register, fewer than half of the UN members provided data, but the report was believed to cover 90 per cent of the 1993 arms transfers. Enc. Brit., *Book of the Year* 1995, pp. 231-2.

<sup>80</sup> Joint Statement by the British and Argentine delegations, UN Doc. A/45/136-S/21159, 21 February 1990.

### A Dynamic Process

Although the specific peaceful purposes reservations are not further defined, leaving their meaning ambiguous and subject to conflicting interpretations depending upon political, strategic, or economic interests of the party involved, the reservation must be considered a seminal innovation in the history of the law of the sea. With the entry into force of the Convention, it has become part of conventional law binding for the states parties to the Convention. But if the general provision of Article 301 applying to all marine zones and, after all, headed "Peaceful uses of the seas" is accepted as defining such uses as those which are compatible with the international law of the UN Charter, then this general provision is only declaratory of the otherwise pre-existing fundamental, even peremptory, rule of international law. If such is the case, it makes no difference whether the Convention has entered into effect or whether a state is a party to it. Yet, in accordance with the principle of effectiveness, it can be argued that the specific peaceful purposes reservations must have some legal effect other than restating a principle of customary international law. On the other hand, despite equal weight of treaty and customary law in their legal impact, anchoring a legal principle in treaty form adds a degree of firmness and durability, hard to change by unilateral action. In this sense the Convention, by entering into effect, has given additional support to the structure of security at sea which prior to the Convention's entry into force was based on the general international law restrictions on the use and threat of force and, for most countries, the customary rules of the law of the sea. Yet it is hard to avoid the feeling that the peaceful purposes clauses are redundant in view of the general provision of Article 301. The way out of this difficulty may be as follows.

One can accept the meaning of the peaceful purposes provisions according to the definition of article 301. However, the specific clauses on the high seas (including the EEZ) and the deep sea-bed imply a mandate by the Convention to the parties, confirmed and strengthened by the general spirit of the Preamble, to strive to progressively attain the goal of a more peaceful ocean space, and this, in fact progressive demilitarization can be accomplished only by naval disarmament and building confidence. The drafters of the Convention were aware that the oceans were full of naval activity and accepted it; the Convention is not a disarmament treaty. But this situation cannot remain static. As noted by the Secretary-General in his report on the naval arms race, "consideration will have to be given to the substantive broadening of naval disarmament agreements which are indirectly but clearly related to the Convention if the principle in the Convention of the peaceful uses of the seas is to be implemented effectively." For the time being, the reservation may be a compromise, but in a dynamic sense it provides a legal guideline for subsequent practice in the implementation of the Convention. The entry of the Convention into effect approximately coincided with the end of the Cold War which created a more favourable climate for moving ahead with making the seas more peaceful, at least in the US-Russian nuclear naval relationship. Hopefully, the other nuclear powers and other states, potential newcomers to blue water navy status, will join the process of naval disarmament.

In addition to directly addressing the question of the peaceful purposes in the use of the oceans, the Convention in force indirectly contributes to strengthening peace and stability by clarifying and more precisely articulating jurisdictional rules in the various zones of the ocean, thus promoting conflict avoidance and confidence building in the maritime domain. As remarked by the President of UNCLOS III, "the Convention will promote the maintenance of international peace and security because it will replace a plethora of conflicting claims by coastal States with universally agreed limits."<sup>81</sup>

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<sup>81</sup> Tommy T.B. Koh, "A Constitution for the Oceans," in *The Law of the Sea—United Nations Convention on the Law of the Sea*, New York: United Nations, 1983, p. xxxiii.

### Peacemaking, Peace-keeping, and Post-conflict Peace-building

Considering that the oceans represent some 70 percent of the planet's surface, the absence in the *Agenda for Peace* of any reference to contributions that the oceans and the law of the sea can make to peace in the post-Cold War era is a serious omission in a document projecting such a comprehensive design for peace. There is no need to reiterate the details of the various aspects of building peace in the oceans, already noted in this paper. Suffice it to say that in all the four phases of action envisaged in the *Agenda*, that is, preventive diplomacy, peacemaking, peace-keeping, and post-conflict peace-building, maritime components and the law of the sea can make an essential contribution to the fulfilment of the tasks envisaged by the Secretary-General. Moreover, the Preamble explicitly emphasizes the "important potential contribution [of the law of the sea] to the maintenance of peace," believing that it "will contribute to the strengthening of peace, security, cooperation and friendly relations among all nations."

In the phase of preventive diplomacy a variety of confidence building measures have increasingly been applied in the naval context, primarily between the United States and Russia, in support of disarmament measures. In the area of peacemaking, the dispute settlement system of the Convention, made up of four categories of judicial and arbitral bodies including a tribunal with a possibility of chambers in deep sea-bed disputes, is generally recognized as one of the most sophisticated in the world. In this context, one has to express hope that states will not take advantage of the optional exception under Article 298(1)(b) from compulsory jurisdiction of disputes concerning military activities. A number of states, however, have taken advantage of this exception.

In the Security Council-ordered actions against Iraq and Yugoslavia under Chapter VII of the Charter, warships of a number of countries have been engaged in hundreds of search operations in fulfilment of their task of enforcing sanctions under Article 41. Naval forces of UN members were also authorized by the Security Council to take military action against Iraq and carrier-borne aircraft of members took part in action in the Bosnian conflict.

In terms of peace-keeping, the Secretary-General refers to the possibility of the United Nations using member states' sea-lift capacity. However, direct participation of member states' navies in peace-keeping operations is also possible, as exemplified in 1990 when units of the Argentinian navy were first to be used in such operations in the Gulf of Fonseca flying both the UN and Argentinian flag.<sup>82</sup>

Finally, there is room for the naval element in the post-conflict peace-building, for example in disarming the warring parties and in the destruction of weapons, also following successful disarmament agreements. In this respect, the subject of sea mines came up on the agenda of the UN Disarmament Commission.<sup>83</sup>

### Conclusion

The controversial peaceful purposes reservation of the Convention on the Law of the Sea is often criticized as a vague and ambiguous provision, inserted into the Convention as a deliberate and masterly political compromise between the strategic mobility interests of the naval powers, and other, primarily developing, states opposing naval activities, especially in their EEZs over which they claim a more comprehensive control excluding military activities of other states. For both groups, the reservation appears

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<sup>82</sup> See Juan Carlos Neves, "The Argentinian Navy and United Nations Peace-Keeping Operations in the Gulf of Fonseca," 16 *Naval War College Review* No. 3, 1993, pp. 22-35.

<sup>83</sup> In this connection, Sweden submitted a working paper with a draft protocol on sea mines.

ambiguous enough to be interpreted in a way allowing conflicting interests enough latitude to secure acceptance of the reservation.

But, whatever interpretation is adopted, the very fact of the Convention's proclaiming the use of the seas exclusively for peaceful purposes, is a turning point in the history of the law of the sea. It may, in a longer term, bring about a fundamental change in the perception of the military uses of the oceans in peacetime.

The Convention is not a disarmament treaty and the reservation cannot be interpreted in an extreme manner as implying a prompt demilitarization of the oceans. But, as any other provision of the Convention, the peaceful purposes clauses must somehow in good faith be implemented by the parties. In this sense, they may be not only a compromise but a mandate for the future to implement them in a gradual but steady process of demilitarization through arms control and confidence building measures. This process has already started at the nuclear level and it accelerated after the end of the Cold War. It must continue and spill over into conventional naval armaments, with other countries joining the United States and Russia in the process.

Under the Vienna Convention on the Law of the Treaties "any subsequent practice in the application of the treaty which establishes the agreement of the parties regarding its interpretation"<sup>84</sup> must be taken into account, together with the context, in the interpretation of a treaty. Accordingly, if the international practice in the naval field proceeds along the path of gradual, balanced, and verifiable disarmament and supporting confidence building measures, the peaceful purposes reservation of the Convention will in the course of time in its substance live up to the promise of its Preamble.

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<sup>84</sup> Art. 31(3)(a)

**PART II**

**DENUCLEARIZATION OF THE OCEANS**

# LINKING OUR COMMON HERITAGE WITH OUR COMMON FUTURE

*David Krieger*

## **Nuclearization**

Nuclearization of the oceans has taken a variety of forms. The most important are:

1. The oceans have served as a medium for hiding nuclear deterrent forces located on submarines;
2. Nuclear reactors have been used to power ships, primarily submarines, some of which have gone down at sea with their nuclear fuel and nuclear weapons aboard;
3. Increasing use is being made of the oceans for the transportation of nuclear wastes and reprocessed nuclear fuels;
4. The oceans have been used as a dumping ground for nuclear waste;
5. Atmospheric nuclear weapons testing, particularly in the Pacific, has been a source of nuclear pollution of the oceans as well as the land; and
6. Underground nuclear weapons testing, such as that conducted by France in the South Pacific, has endangered fragile Pacific atolls and caused actual nuclear contamination of the oceans as well as risking a much greater contamination, should the atolls crack due to testing or future geological activity.

The problems arising from nuclearization of the oceans can be viewed from several perspectives. From an environmental perspective, issues arise with regard to nuclear contamination in the oceans working its way up through the food chain. The biological resources of the oceans will eventually affect human populations which are reliant upon these resources.

The threat of nuclear contamination has diminished with regard to nuclear testing, which has not taken place in the atmosphere since 1980. Moreover, the nuclear weapons states have committed themselves to a Comprehensive Test Ban Treaty, which they have promised to conclude by 1996. This treaty, if concluded, will end all underground nuclear testing.

The dumping of high-level radioactive waste material was curtailed by the 1975 Convention on the Prevention of Marine Pollution by the Dumping of Wastes and Other Matter, but low-level wastes, exemptions authorized by the International Atomic Energy Agency and noncompliance remain a concern. Problems can be anticipated in the future when radioactive contaminants already dumped in canisters or contained in fuel or weapons aboard sunken submarines breach their containment.

Increased use of the oceans to transport nuclear wastes and reprocessed nuclear fuel (between Japan and France, for example) has substantially increased the risk of contamination. Coastal and island states that are on the route of the transportation of nuclear materials stand high risks of contamination in the event of an accident at sea. International law regarding the transportation of hazardous material must be strengthened and strictly enforced by the international community to prevent catastrophic accidents in the future.



From a human rights perspective, inhabitants of island states in the Pacific have suffered serious health effects and dislocation as a result of atmospheric and underground nuclear weapons testing.<sup>1</sup> In response to assurances by France that their current underground testing in the South Pacific is entirely safe, the islanders in Polynesia and throughout the Pacific have retorted: If it is so safe, why isn't it being done in France itself? The response of the French government has been that French Polynesia *is* French territory, highlighting the arrogance and abuse that accompany colonialism.

Human rights issues also arise with regard to maintaining a nuclear deterrence force that threatens the annihilation of much of humanity. The Human Rights Committee stated in November 1984 in its general comments on Article 6 of the International Covenant on Civil and Political Rights, i.e., the right to life, that "the production, testing, possession, deployment and use of nuclear weapons should be prohibited and recognized as crimes against humanity." The deployment of nuclear weapons on submarines, therefore, arguably constitutes a crime against humanity, and thus a violation of the most fundamental human right, the right to life.

From a security perspective, the nuclear weapons states argue that having a submarine-based deterrent force assures their security. Thus, to varying degrees, each of the nuclear weapons states maintains strategic submarines capable of causing unthinkable destruction if their missiles were ever launched (see Appendix A). Viewed from the self-interests of nearly all the world's population—except the nuclear weapons states whose leaders appear addicted to maintaining their nuclear arsenals—the continued reliance on nuclear deterrence, at sea or on land, poses a frightening threat to continued human existence.

In 1972, the Sea-bed Treaty prohibited the emplacement of nuclear weapons on the sea-bed ocean floor, or subsoil thereof. This Treaty prohibited what was deemed already unnecessary by the nuclear weapons states. Placing nuclear weapons on submarines made them less vulnerable to detection and destruction than placing them on or beneath the sea-bed or ocean floor.<sup>2</sup> The oceans continue to be used by the nuclear weapons states as an underwater shadow world for their missile carrying submarines.

The United States alone currently has 16 Trident submarines, each carrying some 100 independently targeted nuclear warheads. Each Trident submarine has a total explosive force greater than all the explosive force used in World War II, including at Hiroshima and Nagasaki. Britain, with the help of the United States, is replacing its older class of Polaris SSBNs with a fleet of four Trident submarines. France currently has five strategic missile submarines with four more of a superior class to be commissioned by 2005. Russia has over 35 strategic missile submarines with an estimated capacity of 2,350 nuclear warheads. China has two modern ballistic missile submarines. Its Xia class submarine carries twelve 200 kiloton nuclear warheads.

The total destructive force that day and night lurks beneath the oceans is a chilling reminder of our technological capacity to destroy ourselves. That this threat was created and is maintained in the name of national security suggests a collective madness which must be opposed and overcome if, for no other reason, we are to fulfill our obligation to posterity to preserve human life.

An ongoing responsibility resides with the nuclear weapons states to fulfill the obligations set forth in Article VI of the Non-Proliferation Treaty (NPT), "...to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a treaty on general and complete disarmament under strict and effective international control." At the NPT Review and Extension Conference in April and May 1995, the treaty was extended indefinitely after extensive lobbying by the nuclear weapons states. At the same time the nuclear weapons states promised to enter into a Comprehensive Test Ban Treaty by 1996, and to engage in a "determined pursuit" of the ultimate elimination of their nuclear arsenals.

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<sup>1</sup> On this subject, see the chapter by Ronni Alexander in this volume.

<sup>2</sup> On this subject, see the chapter by Boleslaw Boczek in this volume.

### **Protecting the Common Heritage**

The Law of the Sea Convention enshrines the concept of the oceans as the common heritage of [hu]mankind. Maintaining the oceans as a common heritage demands that the oceans be protected from contamination by nuclear pollutants; that they not be used in a manner to undermine basic human rights, particularly the rights to life and to a healthy environment; and that the oceans not be allowed to serve as a public preserve for those states that believe their own security interests demand the endangerment of global human survival.

It is unreasonable to allow our common heritage to be used to threaten our common future. Deterrence is an unproven and unstable concept that is being tested on humanity by a small number of powerful and arrogant states that have turned nuclear technology to its ultimate destructive end. In order to link the common heritage with our common future, the large majority of the world's nations seeking an end to the threat of nuclear annihilation should seek to achieve a Nuclear Weapons Convention by the year 2000 that eliminates all nuclear weapons in a time-bound framework. The prohibition and conversion of strategic ballistic missile submarines must be part of this accord. Perhaps this will be the final step in achieving a nuclear weapons free world.

Life began in the oceans and eventually migrated to land. We must not allow the oceans to continue to provide a secure hiding place for nuclear forces capable of causing irreparable damage to all life. This is an inescapable responsibility of accepting the proposition that life itself, like the oceans, is a common heritage that must be protected for future generations.

## APPENDIX A NUCLEAR WEAPONS AT SEA

Sources: *The Bulletin of the Atomic Scientists*, Vol. 51, No. 1; Vol. 49, No. 1, 7, 8, 9. *Jane's Fighting Ships 1995-1996, Ninety-eighth Edition*.

### UNITED STATES

#### Strategic Missile Submarines (SSBN)

Active: 16                      Building: 2

Trident: 16 + 2

There are presently 16 Trident submarines in operation, eight at Sub-Base Bangor and eight at Sub-Base Kings Bay. The schedule is to complete one submarine per year for a total of 18 with the final one becoming operational in 1997.

In September 1994 it was announced in the Pentagon's *Nuclear Posture Review* that the Trident force would be cut from 18 to 14. The submarines to be retired are the four oldest in the fleet. They will be preserved, however, in mothballs until the Start II Treaty is fully implemented in 2003.

These submarines carry 24 missiles each. The submarines are armed with Trident-1 missiles (C-4) and Trident-2 (D-5). In 1991 all strategic cruise missiles (Tomahawks) were removed from surface ships and submarines.

The C-4 can carry up to eight 100 kiloton Mark-4/W-76 Multiple Independently-targeted Reentry Vehicles (MIRV). There are currently 192 Trident-1 missiles deployed in eight Trident submarines based at Bangor, Washington. Four of these submarines are to be deactivated and the remaining four are to be converted to carry Trident-2 missiles. Plans are to then base seven of the 14 submarines on each coast.

The D-4 can carry up to 12 MIRVs with the Mark-4/W76 100 kT warheads, or the Mk 5/W88 300-475 kT warhead each. Under START counting rules, a limit of eight reentry vehicles (RV) was set, but this may further be reduced to four or five under START II. About 400 Mark-5/W-88 warheads for the Trident-2 missiles were produced before they were cancelled because of production and safety reasons. Two new Trident subs fitted with D-4 missiles will be delivered by 1997.

Under the START Treaties, warheads that are reduced do not have to be destroyed.

According to the *Nuclear Posture Review*, the current plan is to remove three or four warheads per missile from Trident SLBMs to remain below the START II ceiling of 1,750 SLBM warheads. Plans are to reduce the C-4 to 1,280 warheads and the D-4 to 400. If it is determined that the SLBMs need to be uploaded, the Pentagon can reuse them.

### RUSSIA

#### Strategic Missile Submarines (SSBN)

Active: 39                      Building: 0

The Russian navy is divided into four fleets: The Baltic, Northern, Black Sea, and the Pacific. In the North and the Pacific fleets, the primary issue is what to do with the estimated 85 retired nuclear submarines. These ships are currently moored at various bases with their reactors still on board. The number is growing

faster than the money available to remove and store the fuel elements and decontaminate the reactor compartments. Since 1991, there has been a lack of funds to operate the fleet. Consequently, few of those listed as active ships have actually been at sea.

The Russian (CIS) SLBM stockpile is estimated to be at: 96 SS-N-6 Serb, 280 SS-N-8 Sawfly, 208 SS-N-18 Stingray, 120 SS-N-20 Sturgeon, and 112 SS-N-23 Skiff missiles. Total warheads are believed to be about 2,350.

The January-February 1993 issue of the *Bulletin of the Atomic Scientists* reports that Russia intends to stop building submarines in its Pacific yards within the next two to three years. Russian President Boris Yeltsin made this announcement during a November 1992 visit to South Korea.

According to Pentagon officials, Russia has already reduced its patrols to a single ballistic missile submarine. In contrast, the US Navy continues to patrol with a dozen or so submarines at a time.

Russian Fleet Commander Adm. Oleg Yerofeev reports that as of 20 October 1991, Russia removed all tactical nuclear weapons from the Northern and Pacific Fleets' ships and submarines.

(NATO names are used in this listing. Russian names are given in parentheses.)

#### Typhoon (Akula) Class: 6

The Typhoon carries carries 20 SS-N-20 Sturgeon missiles, with 6-9 MIRV 200 kT nuclear warheads. The Typhoon can hit strategic targets from anywhere in the world. There are plans to modernise the Typhoons to carry an SS-N-20 follow-on missile which would have improved accuracy. All the Typhoons are stationed in the Northern Fleet at Nerpichya. One was damaged by fire during a missile loading accident in 1992, but has since been repaired.

#### Delta IV (Delfin) Class: 7

The Delta IV carries 16 SS-N-23 Skiff missiles, with 4-10 MIRV 100 kT nuclear warheads. These ships are based in the Northern Fleet at Olenya.

#### Delta I (Murena) Class: 8

The Delta I carries 12 SS-N-8 Sawfly missiles, armed with either a single 1.2 MT nuclear warhead or 2 MIRV 800 kT. Three ships are stationed in the North and the other five are in the Pacific. One of these ships may be converted into a rescue submarine.

#### Delta III (Kalmar) Class: 14

The Delta III is armed with 16 SS-N-18 Stingray missiles. There are three possible modifications for the Stingray. (1) 3 MIRV at 200 kT, (2) a single 450 kT, (3) 7 MIRV at 100 kT. Nine ships are in the Northern and five in the Pacific Fleet.

#### Delta II (Murena-M) Class: 4

The Delta II has 16 SS-N08 Sawfly missiles with two possible modifications. The first is with a single 1.2 MT nuclear warhead, the other is with 2 MIRV at 800 kT. This class of submarine is no longer in production. All four are stationed in the Northern Fleet at Yagelnaya.

## **UNITED KINGDOM**

### Strategic Missile Submarines (SSBN)

Active: 4                      Building: 2

Although Britain initially built four Polaris Submarines, it is estimated that they produced only enough warheads to arm three, or 48 missiles with 96 warheads.

### Vanguard Class: 2 + 2

The Vanguard Class is based on the United States Trident submarine. It carries 16 Trident II (D-5) missiles with up to eight MIRV of 100-120 kT nuclear warheads. The D-5 can carry up to 12 MIRV but under plans announced in November 1993 each submarine carries a maximum of 96 warheads. The UK has also announced that it has no plans to fit its Tridents with conventional warheads, insisting on the nuclear deterrent.

### Resolution Class: 2

The Resolution class was initially fitted with 16 Polaris A3 missiles with three multiple reentry vehicles of 200 kT each. Beginning in 1982, the warheads were replaced under the "Chevaline Programme." The Chevaline is similar, but contains a variety of anti-ballistic missile defenses. The two remaining submarines in this class are both scheduled for decommission.

## **CHINA**

### Strategic Missile Submarines (SSBN)

Active: 1                      Projected: 1

Intelligence on Chinese nuclear submarines is extremely limited. Intelligence experts disagree on whether there are one or two SSBNs. A new class of SSBN is expected to begin building in 1996 or 1997.

### Xia Class: 1

The Xia carries 12 CSS-N-3 missiles armed with a single 200 kT nuclear warhead. Approximately 24 of these missiles have been deployed. An improved version of this missile is currently being developed.

### Golf Class (SSB): 1

Although the Golf is not nuclear driven, it is armed with ballistic missiles. The submarine is outfitted with two CSS-N-3 with 200 kT nuclear warheads.

## **FRANCE**

### **Strategic Missile Submarines (SSBN)**

Active: 5                      Building: 3                      Projected: 1

It is estimated that France has 64 SLBMs with 384 warheads.

### **Triumphant Class: 0 + 3(1)**

The first submarine of its class, *Le Triumphant* recently began conducting trials at sea and is scheduled to depart on its first patrol in March 1996. The other ships are expected to be operational by 2005. The *Triumphant* is armed with M45 missiles with 6 multiple reentry vehicles (MRV) at 150 kT. There are plans to later refit the submarines with the more powerful M5 with 10-12 MRV around 2010. Testing for these new missiles is currently being conducted at the Moruroa and Fangataufa atolls.

### **L'Inflexible Class: 5**

L'Inflexible is armed with 16 Aerospatiale M4B missiles with 6 MRV at 150 kT. The French navy has 80 SLBMs deployed on its five submarines. This class of ships is based at Brest and commanded from Houilles. They patrol in the Atlantic Ocean and the Norwegian and Mediterranean Seas. The minimum number of submarines always at sea has been reduced from three to two.

## **OTHER NUCLEAR-POWERED SHIPS**

### **UNITED STATES**

#### **Attack Submarines (SSN)**

Active: 86                      Building: 4                      Projected: 1

Permit Class: 1  
Benjamin Franklin Class: 2  
Narwhal Class: 1  
Los Angeles Class: 57 + 2  
Sturgeon Class: 25  
Seawolf Class: 0 + 2(1)

The first of this class was launched in July 1995. It is scheduled to be commissioned in May 1996.

#### **Aircraft Carriers (CVN)**

Active: 6                      Building: 3

Nimitz Class: 6 + 3

#### **Guided Missile Cruisers (CGN)**

80 *Pacem in Maribus XXIII*

Active: 5

Virginia Class: 2

California Class: 2

Brainbridge Class: 1

**RUSSIA**

Cruise Missile Submarines (SSGN)

Active: 19

Building: 1(1)

Echo II Class (Type 675M): 3

Oscar I (Granit) Classes: 2

Oscar II (Antyey): 10 + 1(1)

Charlie II (Skat M) Class: 3

Yankee Sidecar (Andromeda) Class: 1

Attack Submarines (SSN)

Severodvinsk Class: 0 + 3(4)

Sierra II (Baracuda) Class: 2

Akula II and 4 Akula I (Bars) Class: 8 + 3

Sierra I (Baracuda I) Class: 2

Alfa (Alpha) Class: 1

Victor III (Shuka) Class: 26

Victor II (Kefal II) Class: 3

Victor I (Kefal I) Class: 2

Yankee Notch (Grosha) Class: 3

Battle Cruisers (CGN)

Kirov Class: 3 + 1

**UNITED KINGDOM**

Attack Submarines (SSN)

Active: 12

Projected: 5

Trafalgar Class: 7 + (5)

Swiftsure Class: 5

## **CHINA**

### Attack Submarines (SSN)

Active: 5                      Building: 1

Han Class: 5

Nuclear attack submarines are believed to be a high priority for the Chinese, but due to high internal radiation levels, production has been suspended.

## **FRANCE**

### Attack Submarines (SSN)

Active: 6                      Projected: 1

Rubis Class: 6 + (1)

The nuclear attack submarine *Rubis* collided with a tanker on 17 July 1993 and has had to undergo extensive repairs. On 30 March 1994 the *Emeraude* had a bad steam leak which caused casualties amongst the crew.

### Aircraft Carriers (CVN)

Active: 0                      Building: 1                      Projected: 1

The nuclear powered aircraft carrier Charles de Gaulle Class was launched in 1994. It is expected to be commissioned in July 1999.



# THE FRENCH NUCLEAR TESTS: CHALLENGES FOR CIVIL SOCIETY

*Ronni Alexander*

## **Prologue: Why France and Not China?**

On 13 May 1995, China conducted its 42nd nuclear test, but with only a few exceptions, there did not appear to be much global concern, even though this test took place just days after the indefinite extension of the Nuclear Non-Proliferation Treaty (NPT) regime. But when just a month later (on 13 June) French President Jacques Chirac announced that France would resume testing in the South Pacific, it seemed that the whole world exploded in protest of this threat to both the regional and global environment.

The question of the resumption of French nuclear testing raises a whole range of issues, some but not all of which are related to the tests themselves. Fundamentally, the resumption of testing calls into question three basic assumptions: that of the inviolability of state sovereignty, that of the efficacy of nuclear deterrence as a strategy for national defence, and that of the legality of nuclear weapons. There is nothing new about these questions, and the peace/anti-nuclear movement has been working at finding a workable solution to them for at least fifty years. At the same time, the fact of French nuclear testing in Moruroa<sup>1</sup> raises issues of immediate practical concern: the threat to the ocean environment in and beyond the region, the threat to post-Cold War stability posed by potential nuclear proliferation (especially in an already nuclearizing Asia), and the question of decolonialization in French Polynesia. It is particularly offensive in that France has chosen to thumb its nose at the expressed desire of the sovereign countries of the South Pacific region *not* to have nuclear testing conducted in their region. That position has been demonstrated through two international treaties, the South Pacific Nuclear Free Zone Treaty and the Convention on the Protection of the Natural Resources and Environment of the South Pacific, as well as through numerous regional, national and local initiatives.

There are, I believe, three reasons for the preponderance of attention paid to the French announcement, while protest against the Chinese tests seems to have been merely an afterthought. The first reason is of course related to the end of the Cold War and the concomitant reduction of the threat of global nuclear war.<sup>2</sup> Not only is it easier to object to nuclear weapons when there is less rhetoric about being protected by them, but there is also presumably less need for that kind of protection.

At the same time, the French have chosen to flaunt that which many countries, Japan for example, choose to ignore: the fact that, like it or not, there are some countries which continue to believe that nuclear deterrence is effective as a basis for national security. What makes this an especially knotty problem is that even if a claim is made that a country is not reliant on nuclear defence, the belief on the part of other countries that in fact a nuclear deterrent is being used can be enough to encourage a nuclear response.

A related issue is that of why tests have been considered dangerous in the first place. One of the traditional reasons for objecting to nuclear testing was the risk that the tests themselves would cause nuclear war. While that particular threat might not seem very likely at the present, the inverse seems to hold: at a time when the risk of global nuclear war seems to be declining, what can be the purpose of once again focusing on

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<sup>1</sup> The atoll known to the Islanders who live there as *Moruroa*, was mistakenly written *Mururoa* by the first French officials. The incorrect version, *Mururoa*, became the official French spelling.

<sup>2</sup> In a recent article, Yoshikazu Sakamoto makes the point that in the use of the phrase "anti-nuclear" it is unclear whether the objection is to nuclear war or nuclear weapons, and that the lack of need for distinction is one of the indications of the cold war system. (Yoshikazu Sakamoto, "Kaku haizetsuheno futatsuno michi," *Sekai*, November 1995, p. 24.)

nuclear weapons and nuclear defence? It is the *just-when-things-were-getting-better-why-did-you-have-to-go-and-blow-it* syndrome.

The second reason involves the concept of national sovereignty. The Chinese test their nuclear weapons in Lop Nor, an area in northwestern China which is in the Xinjiang Uygur Autonomous Region. When the Chinese Communist Party was founded in 1922, Turkistan (current Xinjiang) was accorded autonomous status, and in 1930 it was given the right to secede or federate with the other two autonomous regions, Inner Mongolia and Tibet. Policy towards these regions, rich in natural resources and strategically important, changed as the Communist Party gained power. In 1949, the Common Program set forth the status of the national minorities, declaring them equal but putting forward the goal of creating a greater, unified China. The policy of assimilation included large-scale settlement of Han Chinese into the autonomous regions, so that by 1982, the Han Chinese had become the largest ethnic group living in Xinjiang.<sup>3</sup> China claims the area as its own, and most of the people there seem to agree, although a case can be, and occasionally is, made for self-determination. The people most likely to suffer the deleterious effects of the tests are Han Chinese and Uygur, as well, perhaps, as the residents of nearby Kazakhstan and Kyrgyzstan who are already suffering the effects of tests conducted by the former Soviet Union at Semipalatinsk. Nobody likes the testing of nuclear weapons in China or anywhere else, but no state, particularly those with nuclear weapons or aggressive military programmes of their own, is interested in objecting very much to something which is related to national defence, and thus clearly within the usual bounds of national sovereignty.

Sovereignty in the French case is somewhat different because even if a case can be made for the legitimacy of nuclear testing as an essential part of national defence, it is difficult to justify holding those tests in French Polynesia, even though France claims it as an overseas territory. Mururoa and Fangataufa Atolls are part of French Polynesia, an area which was colonized by France in the 19th century and has remained a French possession ever since. There is an active movement for independence, but while in the case of New Caledonia, a date has been set for a referendum, the future status of French Polynesia remains uncertain.

If the Xinjiang Uygur Autonomous Region is part of China, then is French Polynesia part of France? There are many people of French origin living in Polynesia, particularly Papeete, and most of these do not support the idea of independence. At the same time, it seems far-fetched to claim that Polynesia is French, especially since it is so far away from the "mainland." The French presence, including the nuclear tests, has been good for some people in some parts of Tahiti, most notably those benefiting from the tourist industry in Papeete. But for the majority of people both in Polynesia and elsewhere, the old nuclear-free Pacific axiom still holds: *If it's safe, test it in Paris.*<sup>4</sup>

More significant, perhaps, is the fact that since 1992, the French have joined the British, Russians, and Americans in a moratorium on nuclear testing which operated in part with the understanding that the resumption of testing by one could result in the resumption of testing by all. Thus the French announcement not only stirred recurrent fears of a contaminated Pacific Ocean, it raised the possibility of a new nuclear arms race, or at least the resumption of testing by other nuclear weapons powers as well. This is of particular concern because it was agreed at the Non-Proliferation Treaty Conference earlier in 1995 that the nuclear powers would "exercise utmost restraint" with regard to nuclear testing until it is officially banned by the signing of the Comprehensive Test Ban Treaty (CTBT) in 1996. In the light of this agreement, the attitude of France is

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<sup>3</sup> Julian Burger, *Report from the Frontier: The State of the World's Indigenous Peoples*, Zed Books and Cultural Survival, 1987, pp. 231-3.

<sup>4</sup> It seems that "a group of Australian scientists suggested that the fragile limestone under Mururoa was highly unsuitable for such tests, and that granite was the rock of choice for underground testing...France has ample supplies of granite under Corsica and on the Massif Central in the middle of the country." "Nuclear Test Clouds UN's 50th Anniversary," *Pacific Islands Monthly*, November 1995, p. 24.

difficult to comprehend, although it has promised to end testing for once and for all after this series of tests. This promise has, to borrow a phrase, “all the sincerity and charm of an alcoholic promising to give up—but after just eight more crates of brandy.”<sup>5</sup>

The third reason for such strong opposition is the environmental implications of the French testing. On the one hand, the South Pacific is about as far away from Paris as one can get without leaving earth, so if one were in France, it might be easy to be somewhat unconcerned about the whole affair. On the other hand, there is something which is at the very least intellectually if not scientifically intimidating about testing powerful explosive devices in coral atolls, even if they are buried deep in the island core.<sup>6</sup> In addition to the problem of leaking or venting of radioactive substances, one worries about fission products escaping into the atmosphere, landslides, tidal waves and earthquakes. It is impossible to conceive of the tests actually being safe or of any human scientist being capable of assessing whether or not they really would be totally safe. What if someone makes a mistake? The Pacific Ocean covers a third of the world’s surface and supplies seventy percent of the world’s fish. The Chinese may be within their rights if they contaminate their own soil, (but not that of Kazakhstan) but the oceans are a global commons which under current interpretations of international law are supposed to belong to everyone. What right have the French to threaten them?

The situation comes down to two basic problems. One is the question of what happens when one country’s security interests infringe on those of not only other countries, but other people as well. The other, and it is a related issue, is whether any mechanisms are available for people concerned about security issues to have an impact on national and/or international security decisions. In this context, the French testing has highlighted the impotence of global society in the face of a committed state power, and underscores the need for a new conceptualization of security with concomitant roles for peoples’ participation in security decision-making.

In this chapter, I will argue that in spite of the fact that security issues, as defined in the context of the resolution of those problems about which people feel most anxious, perhaps are the most vital issues to human survival, there is no international governmental arena which allows for peoples’ and/or NGO (non-governmental organization) participation. The French have demonstrated beyond a doubt that what is needed is the democratization of national and international security. The rest of this chapter will be devoted to considering what that means in terms of the response to French testing, as well with regard to its meaning for the future of peace and anti-nuclear movements in the region.

## The Setting

### *The South Pacific Not-So-Nuclear-Free Zone*

The problem of nuclear testing in the Pacific is nothing new: since the commencement of US testing in the Marshall Islands in 1946, the US, UK and France have all conducted nuclear tests, both atmospheric and underground, in the Marshalls, at Johnston and Christmas Islands, in Australia and at Moruroa and Fangataufa

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<sup>5</sup> Ian Williams, “Bowling to Paris Pressure,” *Pacific Islands Monthly*, August 1995, p. 11.

<sup>6</sup> French authorities admitted that the outer wall of Moruroa atoll had cracked and collapsed as a result of the underground tests, but insisted that the damage was limited to the limestone coral crown of the atoll, and did not affect the island’s deep basalt core where radioactivity from the tests is supposed to be trapped. Stuart Parker, “Atoll’s coral walls ‘cracked by tests’,” *Canberra Times*, 31 July 1995, quoted in Ramesh Thakur, *The Last Bang before a Total Ban: French Nuclear Testing in the Pacific*, Working Paper No. 159, Canberra: Peace Research Centre, Research School of Pacific and Asian Studies, Australian University, September 1995, p. 10. The same paper also discusses the question of how long it will take the radio nuclides to leak out from the limestone. The best-case scenario is 500-4,500 years, the worst-case, 50 years (p. 11).

Atolls. The atmospheric tests have left horrific scars on the people and islands involved. Two generations after the first US tests, three atolls are still virtually uninhabitable and health problems ranging from thyroid tumours to cancers to birth defects continue a seemingly inexorable escalation with no drop off in sight. And classified documents released by the United States show that the military command operating the testing programme covered up reports forecasting fall-out, knew that winds were blowing to inhabited islands when they pushed the button for the 1954 Bravo shot, and created a top-secret unit to study the fall-out effects on a small group of islanders, while ignoring others similarly exposed.<sup>7</sup>

While atmospheric testing by the US, USSR, and UK stopped with the Partial Nuclear Test Ban Treaty of 1963, France continued for another ten years, and followed with underground testing until it joined the moratorium in 1992. In addition, the US, Russia and China all continue to conduct missile tests in the region. These tests are essential for the design and maintenance of delivery systems which get nuclear warheads to their intended targets and are said to be essential for the maintenance and development of modern weapons systems. In particular, the United States maintains an immense facility at the Kwajalein Missile Range on Kwajalein Atoll in the Marshall Islands. While there are legal agreements curtailing nuclear warheads and weapons, none of these documents deal with the problem of missiles and missile tests.

There is, therefore, a very understandable reason for the strong anti-nuclear sentiment in the Pacific, particularly where nuclear testing is concerned. In fact, the anti-nuclear movement in the Pacific began in earnest in the 1970s, as the Pacific Island States were gaining independence and working to ensure that their new status would also enable them to be nuclear-free. The first international initiatives, however, for a nuclear-free Pacific were put forth by Australia and New Zealand in the early sixties in connection with the establishment of the Antarctic Treaty System.

These efforts finally came to fruition in 1985, in the form of the South Pacific Nuclear Free-Zone Treaty (SPNFZ). As a nuclear-free zone treaty, it is only the second of its kind; the first is the Tlatelolco Treaty establishing a nuclear-weapons-free zone in Latin America.<sup>8</sup> Ideally, the South Pacific zone should be contiguous with the Latin American one, and presumably then similar zones could be established and attached in, for example, in southeast Asia or the northern Pacific Rim. Unfortunately, the South Pacific zone includes only the states which were independent at the time of the signing. Since the Micronesian countries were not yet independent at that time, the northern border of the zone is along the equator. The eastern border of the SPNFZ adjoins the Latin American Nuclear-Free Zone at 115 degrees longitude, and thus testing ought to be prohibited in that stretch of ocean. Unfortunately, since France has refused to sign the Protocols to the SPNFZ Treaty, neither France nor French Polynesia are parties to the Treaty, and it is in that stretch of non-nuclear-free ocean that the recent tests were being held.

Even if France had agreed to the nuclear-free zone, there are still numerous problems with the zone as a mechanism for keeping the region truly free of nuclear weapons. The most serious problem is of course that of the nuclear weapons powers only Russia and China have signed the protocols, and both of these have done so with reservations. The US, UK and France have announced they will sign the Treaty "during the first

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<sup>7</sup> Giff Johnson, "New Documents Point Way to the Horror of America's Island Tests," (*Island Business Pacific*, September 1995, p. 27). See also "America's Painful Atomic Secrets," *Pacific Islands Monthly*, April 1994, pp.11-13, *Asahi Shimbun*, 25 February 1994. See also March 1994, p. 14. The Compact of Free Association between the Republic of the Marshall Islands and the United States has a provision which gives the Marshall Islanders tens of millions of dollars in return for not filing any additional nuclear testing damage claims against the US. There is, however, also a clause, Section 177, which allows for such claims under "changed circumstances," which these new revelations might very well indicate.

<sup>8</sup> See the Chapters by Ramon Lopez-Reyes and Fabio Castillo in this volume.

half of 1996," but only after the completion of the recent round of French tests.<sup>9</sup> Without the cooperation of those countries actually possessing nuclear weapons, and secondarily those with the capability and possible motivation to build them, nuclear-free zones have limited meaning.

The South Pacific Nuclear-Free Zone Treaty requires full consensus before it can be amended, and this makes it extremely difficult to make the zone more comprehensive. In addition to the need to expand the area of the zone itself, other difficulties with the current SPNFZ Treaty concern the treatment of the high seas. For example, the current treaty allows for the possibility of actual use of nuclear weapons by nonmember states from the high seas within the zone, and does not limit nuclear weapons on the high seas. Moreover, it leaves the problem of how to deal with the question of port calls by nuclear-powered vessels and/or those carrying (or suspected of carrying) nuclear weapons up to the discretion of the individual states.<sup>10</sup> Moreover, it has been claimed by the US, among others, that the zone is meaningless, since the member states are all included in the Non-Proliferation Treaty regime and are thus bound by that document to maintaining their non-nuclear status. This is one of the reasons given by the US for not signing the protocols: the real reason is probably concern over the possibility of linking nuclear-free zones to cover a greater area than just the Pacific south of the equator.

In addition to nuclear testing, two issues are currently of particular concern with regard to the SPNFZ Treaty. One is the problem of the transport of radioactive substances, particularly that of high-level nuclear waste, reprocessed waste and plutonium, through the zone. The dumping of radioactive waste is prohibited, but the transport of such waste is not addressed at all. This is of course a problem which concerns Japan, as it sends its waste from its nuclear power plants to France and Britain for reprocessing, and the ships go through the zone, as well as the EEZs of many island countries.<sup>11</sup> Since Australia, a major proponent of the SPNFZ in its current loose form, is a major producer of uranium, prohibition of the transport of radioactive substances has been a problem from the outset.

The second problem is the proposal for the establishment of a nuclear waste dump on Bikini Atoll in the Marshall Islands. This is possible because not only are the Marshall Islands located outside of the present SPNFZ Treaty area, but because that Treaty does not specifically prohibit the dumping of radioactive wastes on land in the region, even among member countries.<sup>12</sup> The plan has many Pacific Island countries very concerned, but short of the extension of the zone to include the Marshalls and a new clause prohibiting land dumping, there is little that can be done, particularly since amending the SPNFZ Treaty requires consensus.

### ***Related Issues***

There is, of course, a wide range of issues which come together to create the momentum necessary for the establishment of a nuclear-free zone, or for the kind of protest that has occurred in the past few months. In the Pacific, these include in particular the question of decolonialization, militarization, and chemical weapons.

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<sup>9</sup> "U.S., France, U.K. to join ban on South Pacific N-tests," *Japan Times*, 22 October 1995.

<sup>10</sup> For more about SPNFZ, see Ronni Alexander, *Putting the Earth First: Alternatives to Nuclear Security in Pacific Island States*, Honolulu, Hawaii: Spark Matsunaga Institute for Peace, University of Hawaii, 1994.

<sup>11</sup> There have been strong and repeated protests from Pacific Island governments to these shipments, but they have been virtually ignored by the Japanese.

<sup>12</sup> The Convention for the Protection of the Natural Resources and Environment of the South Pacific Region (SPREP Treaty) does "prohibit the dumping of radioactive wastes or other radioactive matter in the Convention Area" (Article 10), and also requires Parties to "prohibit the storage of radioactive wastes or other radioactive matter in the Convention Area" (Article 11). The Marshall Islands are a party to that Treaty.

While for most of the world, "decolonialization" is an outdated term, in the Pacific there are a number of islands which are still under foreign rule. France lays claim to three territories: New Caledonia, "French" Polynesia, and Wallis and Futuna Islands. The United States has two unincorporated territories, American Samoa and Guam. The end of the US Trust Territory of the Pacific Islands in Micronesia brought three island states into a relationship of free association with the United States, and one, the Mariana islands, into a commonwealth relationship. Britain retains control over Pitcairn Island. Chile controls Easter Island, and Ecuador the Galapagos. Of great concern as well is the situation in East Timor and West Papua, where Indonesia has taken over where the colonial powers, Portugal and Holland, left off. While East Timor and West Papua are not generally included in the Pacific Basin per se, the atrocities reported in these territories are such that their situation bears mention. It of course goes without saying that in order for any of these territories to have a say in international affairs, they must first become recognized as political entities in their own right. Until that happens, they remain at the mercy of the governing states and as in the case of French Polynesia, can be used to fulfill the whims of whatever strategic planning those states might decide to produce.

In the case of the French colonies, the independence of New Caledonia is scheduled for a referendum in 1997, but the future status for the remaining territories remains unclear to the extent that no one knows when or whether such steps will be taken. Similarly, in the case of the United States possessions, there are rumours and rumblings, but nothing concrete. The point, however, is that for both the US and French territories, denuclearization and deconialization are related issues: independence is not possible as long as the controlling states intend to test nuclear weapons.<sup>13</sup>

This problem involves more than just nuclear testing; it involves military access and control. During the Cold War, The Pacific Islands, particularly the Micronesian Islands, were deemed to be of great strategic importance. This situation has been altered by the ending of the Cold War, but strategic concerns are not entirely gone from the region. In addition to the French nuclear test centre, of particular importance is the US missile testing range at Kwajalein Atoll. Amidst troop reductions throughout the region, Kwajalein stands out as an exception: it will be centre stage for the testing of many components of a new antimissile system called the Theatre High Altitude Defence System (THADS). According to an agreement signed in Majuro in the summer of 1995, testing will be expanded to include a new island, and by the late 1990s will "involve multiple launches from multiple islands in the Marshalls."<sup>14</sup>

There has also been for some time a trend toward militarization of the Pacific region which is at the very least reinforced by the presence of foreign administrations and foreign military. The major military conflict in the region, that over the independence of Bougainville, has settled down, but tensions remain in Fiji, PNG, and Vanuatu, not to mention West Papua and East Timor.

A third issue of concern is the facility for the destruction of Agent Disposal System (JACADS), located about 1300 kilometres southwest of Hawaii. This island is an American possession, and the facility was originally designated for the disposal of nerve gas and other chemical weapons which had been deployed in Germany and which had to be removed before reunification. There have been a number of accidents reported at the facility, and since they are handling extremely lethal materials, it is of great concern to the surrounding

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<sup>13</sup> "I am the governor of an American colony: Guam. We, like the people of French Polynesia, have a great deal of our lives controlled by our governing 'benefactors.' Unlike the Tahitians, we do not have to deal with the billion year 'half-life' of nuclear testing. But we could....I ask the members of Congress to listen to the problems of Guam...and give our people the assurance that they will never have to face the same horrors the people of French Polynesia face today." Carl T.C. Gutierrez, "The Ugly Cloud of Nuclear Colonialism," *The Washington Post*, reprinted in *The Japan Times*, 14 October 1995.

<sup>14</sup> See, for example, "U.S. to Expand Missile Test Operations in Marshalls," *Pacific*, September/October 1995, p. 12.

countries.<sup>15</sup> As the JACADS is the only facility of its kind, it is more than likely that it will remain in use as additional bans go into effect on chemical and other weapons.

## Theoretical Perspectives

### *Endogenous Security and the Question of Legitimacy*

One of the questions raised by the French nuclear testing is over whose security is being insured. Is it that of the French government or perhaps the French people in France? Those in French Polynesia? The Maohi people themselves? A related question is of course what, in fact security entails, and what it means for people and governments to be secure. We have come a long way since the Cold War when the concept of national security was defined as being of a virtually exclusively military nature, and was measured in terms of indices such as military capability and preparedness. The introduction of such concepts as human security or peoples' security has given importance to nonmilitary aspects of security such as the environment and has tried to incorporate concepts of environmental protection and sustainability into the security paradigm.<sup>16</sup> The concept of "endogenous security" used here is similar in many ways to "human security" but places more emphasis on peoples' participation from the outset by addressing the question of security from the position of those desiring security rather than those doing the securing.

Using the above expression, when "those desiring security" are defined as the beneficiaries of security policy, e.g., the residents of a given country, then it follows that the starting point for a discussion of that security must be the health and well-being of those people. In the Pacific, the call for the complete denuclearization of the region is a response to what are perceived to be direct threats to the health and well-being of the people of the region on three levels, the nuclear threat of "today," i.e., immediate nuclear contamination as a result of activities such as nuclear tests, and that of "tomorrow," both in terms of the threat of nuclear war and that of long-term contamination or intergenerational considerations.<sup>17</sup>

If nuclear deterrence and nuclear defence are seen as the rational and logical basis for national security, this call for denuclearization can have no political legitimacy. Since the result of the actual use of nuclear defence in the Pacific Islands would be ridiculous, and since even a small nuclear accident could have disastrous effects for a small island country, the call for denuclearization of the Pacific Basin makes perfect sense. Moreover, if we take healthy populations as a basic building block of endogenous security, and recognize that in order to have healthy populations, it is important to have healthy women as mothers, and

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<sup>15</sup> Concern is being voiced after a number of accidents at the JACADS facility. See Ed Rampell, "Johnston Atoll Revisited," *Pacific Islands Monthly*, February 1995, pp. 46-50.

<sup>16</sup> The Commission on Global Governance, for example, discusses three securities: military security; that of people, and that of the planet itself. The argument is made that if the security of the people or the planet is sacrificed for the sake of that of the state, then in fact no one is secure at all. (*Our Global Neighbourhood: The Report of the Commission on Global Governance*, Oxford: Oxford University Press, 1995, pp. 78-84.) With regard to Human Security, see also, e.g., the UNDP *Human Development Report 1994*, or Mahbub ul Haq, "New Imperatives of Human Security," in Uner Kirdar and Leonard Silk, eds., *People: From Impoverishment to Empowerment*, New York: New York University Press, 1995, pp. 371-8.

<sup>17</sup> Intergenerational concerns and environmental concerns on a global basis are a new development, perhaps one of the results of the end of the Cold War and the reduced threat of global nuclear war. Sakamoto discusses this point with regard to the separation of the threat of nuclear war and that of nuclear weapons (Sakamoto, op.cit.).

access to sufficient quantities of healthy food,<sup>18</sup> we can see that nuclear tests, weapons and the infrastructure that supports them present a threat to security because they threaten the very substance of all living things, including but not limited to the human populations. In this sense, it can be asserted that at the centre of the question of “illegitimacy” lies not the struggle against nuclearism but rather the promotion of it. Moreover, when considered in the light of the trends toward militarization mentioned above, one could make a case for the legitimacy of the struggle for denuclearization in terms of a larger struggle for demilitarization, as only the elimination of war itself can ensure the elimination of nuclear weapons.

Endogenous security also entails freedom of choice, and assumes the existence of a range of security choices, some of which are more endogenous while others are less so. It is possible, therefore, on the one hand, to choose endogeneity over exogeneity, or vice versa, in security policy. In other words, this means that, along with the right to self-determination, peoples and states should have the right to determine whether they want their security guaranteed from within or without. At the same time, the question of security from within cannot be considered until self-determination has taken place. The subjugation of the right to self-determination of Pacific peoples to the nuclear security of the colonial powers has led not only to an infringement of their basic human rights, but also to a fundamental linking of nuclear-free and independence issues in the region.

### ***Opposing Nuclearization: Methods and Structures***

At the outset I suggested that what is needed is a more clearly defined mechanism for peoples’ participation in national and international security issues. Taken in the extreme, this would essentially be an extension of the idea of endogenous security beyond national boundaries to include global civil society as a whole. While there are established roles for NGOs with regard to development, environment and, to a lesser extent, human rights issues, security, particularly international security policy, remains the realm of (generally male) professionals and politicians. In order to address issues relating to international peace and security, such as nuclear testing, it is necessary to establish a model for transnational or perhaps global civil society, which could include efforts such as the Peoples Charter for a Nuclear-Free and Independent Pacific put forward by the Nuclear-Free and Independent Pacific Movement, which parallels the nuclear-free zone treaty efforts of governments.

In looking at the reactions of global civil society to the French nuclear testing, it is important to think about the level(s) of the global structure at which those responses have taken place. I have suggested elsewhere<sup>19</sup> that the process of denuclearization takes place basically at three levels: the individual/NGO level, institutional (local as well as national/state level) and institutional (international/global level). In looking at the present situation, however, it is important to add an additional level, that of industry, both transnational and domestic. In the civil society conceptualization, industry, as the second sector, is juxtaposed with the first sector (government) and the third (civil society/voluntary society). In a global civil society framework, industry would have to be seen as independent of, but fundamentally related to both, not only because of its size, but because of the influence that it has on both government and civil society.

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<sup>18</sup> In this context, “healthy food” refers to unprocessed foods which retain their natural nutrients and are prepared in ways which maximize their nutritional value. There is of course a cultural component to this type of “health,” and cultural integrity is seen as being one of the fundamental elements of security.

<sup>19</sup> See Ronni Alexander, “The Struggle is not yet over” in *The Journal of International Cooperation Studies*, Vol. 3, No. 1, Kobe University, Japan.



### *Individual/NGO/Civil Society Initiatives*

Work at the individual/NGO level has been very widespread, focusing primarily on lobbying against nuclear testing, nuclear ship visits, nuclear waste dumping and uranium mining. In the 1970s, the Nuclear-Free and Independent Pacific Movement (NFIP) was begun, initially in opposition to French testing, and subsequently for working on independence and indigenous issues. Through tying together nuclear and independence issues within the movement, it has created transnational links among anti-nuclear/anti-war/peace movements and indigenous/independence movements in the region, thereby increasing the breadth of its constituency. The NFIP movement has been relatively successful in obtaining extra-regional support through solidarity groups, church groups and issue-oriented networks. This has not only helped to raise money and to educate people in developed countries about the struggles of Pacific peoples, but has brought the organizing expertise and experience of overseas supporters to the benefit of the Pacific movements.

Methodology can be as diverse as the people involved in the efforts. Although the primary method is some form of lobbying, the target and content vary depending on the focus of activities and the level at which results are hoped to be made. Consumer activities would target industry, demonstrations might target local authorities or industries, or might have a broader focus. Petition campaigns might aim at national or international governments or organizations. Most of the efforts, particularly anti-nuclear initiatives, are by nature transnational, making them prime candidates for a model of global civil society.<sup>20</sup>

### *Institutional Initiatives (Local and National)*

National initiatives for denuclearization are those which have been put forward through some institution of the national government. In the Pacific, these have included nuclear-free constitutions, establishments of national or local nuclear-free zones or national or local nuclear ship bans either by law or declaration, and individual statements by national leaders and/or heads of state.

Methodology for these initiatives usually takes the form of either legislation (laws or regulations), or declarations. While the former can be binding and have penalties for those who do not follow them, declarations are not legally binding so there is no legal responsibility to follow them.

### *Institutional Initiatives (Regional/International/Global)*

As Pacific Islands achieved independence, one issue of great concern was that of French testing, but the greatest concern was (and continues to be) economic development. There are a number of regional organizations in the South Pacific, most of which function quite well. The first such organization was the South Pacific Commission which was established in 1947, with membership consisting of the colonial powers in the region plus Australia and New Zealand. The newly independent countries gradually gained admission, but while they were able to discuss economic issues in the South Pacific Commission and in other regional fora, they had no regional organization of their own. The political problem of French nuclear testing provided an important catalyst for the formation of a new regional organization with an emphasis on the discussion of political issues such as decolonialization and nuclear testing.

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<sup>20</sup> Richard Holloway, e.g., divides organizations of the civil society into those which help their own membership (mass organizations, religious organizations, etc.) and those which help others (nonprofits, local philanthropic organizations, etc.). These are drawn on a model of Bangladesh, and do not deal directly with cross-border relations. Richard Holloway, "Organizations of Civil Society," in Isagani R. Serrano, *Civil Society in the Asia-Pacific Region*, Civicus, World Alliance for Citizen Participation, Washington, DC, 1994, pp. 137-43.

The South Pacific Forum was established in 1971, with membership open to the independent South Pacific Island Countries plus Australia and New Zealand. The South Pacific Forum became an important voice for denuclearization and independence in the region, and it was through this organization that the South Pacific Nuclear-Free Zone Treaty was adopted in 1985. In addition, the South Pacific Regional Environment Programme (SPREP) has played an important role in efforts to regulate the dumping and trade in radioactive and toxic wastes.

Pacific Island countries have also worked for denuclearization in supra-regional fora such as the Non-Aligned Movement and the United Nations. For example, the first international action of Papua New Guinea (PNG) upon achieving independence in 1975 was to co-sponsor with Fiji and New Zealand a proposal to the United Nations for the establishment of a Pacific nuclear-free zone. Similarly, Nauru and Kiribati joined the London Dumping Convention in order to oppose Japanese proposals for dumping low-level nuclear waste in the Pacific, helping to establish the first moratorium on ocean dumping of nuclear waste.

Like other institutional initiatives, methodology at this level involves legislation such as the establishment of treaties, or declarations which are not legally binding. Treaties are much more difficult to achieve than declarations, particularly since they entail ratification by the member countries, and declarations are often mid-way points to the establishment of treaties. For example, declarations for a nuclear-free South Pacific were made in many fora before the South Pacific Nuclear-Free Zone Treaty was actually achieved.

### *Industry*

Industry can play either a positive or negative role in the promotion and implementation of efforts for denuclearization. On the positive side, through the establishment of environmentally friendly practices, industry can influence both consumers and other industries or companies to adopt similar stances. In addition, through the development of technologies which are not destructive to the environment, or through the avoidance of environmentally destructive materials, similar influence can be exercised. Furthermore, many companies have research institutes or foundations. The funding and activities of these organizations can be used in positive ways, and can help to support individuals, NGOs or other bodies interested in working for denuclearization.

Similarly, industry can have a negative influence through the continued use of dangerous materials and exploitative or destructive practices. Moreover, since industry, like everything else, is interdependent, one industry can exert pressure on other industries or on governments. The creation of a nuclear waste storage facility in the Marshall Islands is an example of the negative effects of industry on governments with regard to denuclearization.

### *Inter-Level Cooperation*

One prerequisite for successful denuclearization policy is that groups at the various levels work together. Nuclear-free constitutions, for example, must have not only local support but also national support if they are to succeed. In recent years, NGOs and other organs of the civil society have been recognized for the role they play in the creation of successful policy, and their potential for influencing the ways in which that policy is implemented. It should be noted, however, that it is the separation of these organizations from the centres of designated authority such as governments that gives them the freedom to make radical suggestions. While some may be too radical for the society as a whole, one role of such organizations is to set the outer limits and directions for social change.

In his discussion of the implications of civil society for NGOs, Holloway stresses the need for NGOs to be seen as public institutions, within the public domain of governance by civil society. This conceptualization challenges the vision of NGOs as entirely voluntary, and "explodes the myth of moral

superiority of States over NGOs as represented in the public-private dichotomy of Governmental and Non-Governmental.<sup>21</sup>

## **The Response to the French Announcement**

### *Civil Society Initiatives*

Initiatives at this level in opposition to French testing have been numerous and varied, yet basically they have been limited to the well known trio of political action: petitions, demonstrations and boycotts. Since the tests are being conducted by the French Government, the bulk of opposition has been aimed in that direction, with much of it designed with the intention of achieving as much media coverage as possible. Demonstrations, petitions, letter-writing campaigns, etc., have centred on embassies and consulates, trying to convey the message to the French Government that people do not want the tests to continue. Media coverage has sparked interest and action internationally. At the same time, the lack of media coverage in some countries, France, Vanuatu and the US, for example, not only expresses the stance of these countries but prevents people from being influenced by the opposition and activities of others.

Another important activity by local individuals and groups has been the boycotting of French products such as wine, designer clothing or cosmetics. This can be effective if it affects the industry enough for it to try and exert influence on the government, although it can be difficult if it is seen to hurt individual businesses. For this reason, boycotts should ideally be transnational, but at the very least, should be concentrated on countries which engage in a large amount of trade with France. Unfortunately, the larger the market share, the more reluctant the industry is to risk its economic success for a political issue. It is here that the civil society can give legitimacy to the political issue, making it economically unwise *not* to be involved in the boycott. Such efforts in community consciousness raising can often be enhanced by the use of advertising methods, such as taking out full page ads in prominent newspapers.

In Japan, many businesses expressed concern about how such boycotts would hurt their own business, or that of their French counterparts, while in Australia, French restaurant owners found they could only attract customers by advertising their anti-nuclear stance. Thus the relationship between consumers and businesses relies to a great extent on the awareness and interest of the community as a whole.

In Japan, Greenpeace and other environmental NGOs were at the forefront of action, but were joined by concerned citizens and groups. It is perhaps instructive to mention three rather unique examples of protest from Japan. The first is the positive action of young people. A number of students decided to address the issue at their school festivals, and some high school students demonstrated against the testing while wearing their school uniforms. These activities met with mixed reactions from school authorities; some students were prohibited from continuing while others were encouraged. At a time when young people are quite apathetic about international issues, the level of involvement is significant, and raises issues about the role of youth in civil society.

The second example has parallels elsewhere, but is worth noting. Professional organizations are important because of the economic role they can play and also because of their impact on public opinion. The Association of Hair Stylists in Shikoku, an organization with 4,350 shops in four prefectures, decided to boycott all French cosmetics in protest of the tests. Since many people go to hair stylists, this boycott can have an influence extending well beyond the number of shops involved.<sup>22</sup>

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<sup>21</sup> *Ibid.*, p. 133.

<sup>22</sup> *Asahi Shimbun*, 12 September 1995.

The third example is the linking of the anti-nuclear weapons/peace movements and the anti-nuclear power movement. This linking was sparked by rumours that plutonium extracted from Japanese spent nuclear fuel which was reprocessed at La Hague in France was being used in the tests. A Kyoto-based group called Green Action, the Consumers Union of Japan and the National Christian Council in Japan (Peace and Nuclear Issue Committee) commissioned a study by the World Information Service on Energy (WISE) to look into it. The findings show that "Far from being a separation between civil and military activities in France, there is a considerable degree of overlap" and that EURATOM and IAEA safeguards are "not designed to prevent Japanese plutonium from being used for military purposes." Some of the financing for the plant at La Hague which separates Japanese plutonium came from the French defence budget and that facility has produced plutonium for the bomb programme. WISE says not only that it cannot rule out the possibility that "physically Japanese plutonium has made its way into French defence activities," but that "there is no guarantee that Japanese plutonium has not contributed to the production of weapons grade plutonium in France."<sup>23</sup>

Certainly the most visible actions against France worldwide have been taken by Greenpeace. They have led signature campaigns (7 million people from 30 countries),<sup>24</sup> erected banners on top of the houses of politicians and officials, tried to take France to court, held demonstrations, taken out ads and much, much more. In the South Pacific, Greenpeace took the lead in opposing the tests by sailing boats laden with, among other things, cameras, into the test areas, and beaming the resulting arrests directly to viewers around the world by satellite. One objective of this action was to delay the tests; another was to ensure media coverage and raise public awareness and interest. One of the Greenpeace actions which received the most attention was the sailing of an "international crew" of parliamentarians and others from France, Britain, US, Australia, New Zealand, Denmark, Canada, Italy, Holland, Luxembourg, Austria, Poland, Fiji and the Solomon Islands. The boat was part of a 15-vessel flotilla, but was the only one to have entered French waters. The boat was seized, and the parliamentarians from Japan, Australia, Italy, Sweden and Luxembourg were taken into custody.<sup>25</sup>

Among organizations of the civil society, Greenpeace has clearly taken the most rapid, radical and aggressive stance, or at least the most publicized one. It has led the way for, and influenced further action by others, including governments. In the process, however, Greenpeace lost its flagship *Rainbow Warrior II* and its supply ship, *MV Greenpeace*, and many people were arrested. Even without these difficulties, Greenpeace is said to be suffering from financial and other problems. In the last four years, the organization has lost around two million members, partly due to the global recession, but also due to concerns over tactics. Both the nuclear test campaign and an earlier campaign against Shell (reported to have cost one million pounds) have been very costly and there are reports of infighting and other internal problems. While Greenpeace denies any connection, they have announced that 20 paid staff will be leaving soon.<sup>26</sup> There thus remains the question of whether, for Greenpeace, the campaign has been worth the cost.

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<sup>23</sup> Mathieu Pavageau and Mycle Schneider, "Japanese Plutonium and the French Nuclear Weapons Program," Paris: WISE, 9 August 1995, pp. 11-13. See also Stephen Hesse, "Seeking the 'truth' on plutonium issue," *Japan Time*, 12 October 1995 and Takemura Hideaki, "The Dangerous Relationship between French Nuclear Testing and Japanese Nuclear Power," Friday, No. 90, 15 September 1995, pp. 7-9.

<sup>24</sup> "7 million sign in protest," *Asahi Shimbun*, 29 October 1995.

<sup>25</sup> Ken Suzuki, "Mururoa no Itami, No. 5" (Moruroa's Pain), *Asahi Shimbun*, 11 September 1995, and "Protesting Lawmakers Held by French Military," *Japan Times*, 11 September 1995.

<sup>26</sup> "Otsukare? Greenpeace" *Asahi Shimbun*, 11 September 1995. "Greenpeace fighting spirit is still intact," *Japan Times*, 2 November 1995.

***Institutional Initiatives (Local and National)***

There have of course been a plethora of initiatives at the local and national institutional level. Throughout the world, municipalities have made declarations and statements against France, and some have even called for boycotts of French products. For example, the Manila City Council has voted to ban French leaders and boycott French products, and the Australian state of New South Wales attempted to stop future uranium exports to France. (It was discouraged from doing this by the Australian government due to the possible long-term disadvantages.)<sup>27</sup> Also, the tests have affected sister-city relationships. Many cities in Japan and Australia have cancelled visits to sister cities in France and China, or have decided not to enter into new sister-city relationship agreements with cities in the two countries. One of the better publicized examples is the testimony of the mayors of Hiroshima and Nagasaki to the International Court of Justice (ICJ) with regard to the legality of the use of nuclear weapons. The ICJ case would have happened anyway, but the timing is such that the testimony is receiving more press than perhaps it would have otherwise.

An interesting example comes from Hyogo Prefecture, where construction has been stopped on a 20 billion yen France-Japan friendship monument on Awaji Island commemorating the 200th anniversary of the French Revolution. The halt is said to be for a review of the monument's anti-earthquake system, but many scholars and journalists had been calling for the discontinuation of the project in light of the French tests and their efforts clearly had some impact.<sup>28</sup>

Initiatives by individual states have also been varied and numerous. In the South Pacific, almost all governments made statements opposing the tests, and Fiji at one point suggested that France recall its ambassador for his own safety. Nauru has broken off diplomatic relations with France until the tests are stopped and France signs the CTBT. It also joined Western Samoa, and later Niue, in announcing a boycott of the South Pacific Games. Western Samoa also instituted a ban on visits by French military ships and planes. Australia recalled its ambassador to France and announced that the French military aircraft manufacturer Dassault would be excluded from bidding on a contract for a jet fighter. Paris retaliated by recalling its own ambassador.<sup>29</sup> Perhaps the most well known example, however, is the attempt by the New Zealand government to stop the tests through reopening a case brought against French atmospheric tests more than 20 years ago. The attempt received a lot of attention, but failed when the court ruled against New Zealand, saying that since these were underground tests, it was not applicable.

Not all countries were quite so enthusiastic in their opposition. The Governments of Tonga and Vanuatu, for example, did not issue statements in opposition. While the Government of non-nuclear Vanuatu claimed to be opposed to the development of nuclear weapons, Prime Minister Maxime Carlot Korman said on 14 June 1995 that Vanuatu would not oppose the French tests because it was a "sovereign" decision and that "respect of each state's sovereignty is a fundamental rule." He also claimed that there would not be detrimental environmental effects from the tests, and banned references to the tests on public radio in Vanuatu. In addition, Korman banned public demonstrations on Bastille Day, and invited French Polynesian President Gaston Flosse and other French officials to attend celebrations on Vanuatu's Independence Day. At the same time, he said that he would not oppose any decision made by the South Pacific Forum in opposition to the tests. Using similar logic, Tonga upheld the sovereign right of France to test its nuclear weapons, and was rewarded for its

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<sup>27</sup> Thakur, op.cit., p. 23.

<sup>28</sup> "Hyogo halts construction of France-Japan monument," *Japan Times*, 16 October 1995.

<sup>29</sup> Thakur, op.cit., p. 23.

efforts by a gift of a 2,200-ton fuel tanker, presented by Gaston Flosse on behalf of France.<sup>30</sup> Another South Pacific country which found itself in an ambivalent position was the Cook Islands. Two thousand of the 8,000 Cook Islands residents turned out for a demonstration, and were told by Prime Minister Sir Geoffrey Henry that "Right now, Paris can't see us. Right now, Paris is not hearing us—but there is someone that is hearing us and watching our activities....If all our people say one prayer, the good Lord will touch the hearts of those in France, that they may have the courage to reverse their decision to resume the testing." In the meantime, the Cook Islands decided not to boycott the South Pacific Games, finding themselves torn between the desire to protest and the need for French aid. They did, however, issue a statement in opposition to the tests.<sup>31</sup>

In the United States, a bill was introduced in Congress to boycott French wine as a sign of protest, and in August, the US Senate voted to condemn the French testing plans. A similar measure was approved by Russia's Parliament.<sup>32</sup> In these measures, emphasis and political legitimacy are based on the NPT negotiations and the importance of establishing the CTBT. In Japan, Foreign Minister Yohei Kono accused France of betraying the trust of the nonnuclear countries, and the issue has been taken up repeatedly by Prime Minister Tomiichi Murayama. The tests have been strongly condemned by the European Parliament, particularly by the Scandinavian countries.

As the island countries of the Pacific become more affluent and incorporated in an active way into the world economy, the perceived costs of denuclearization become higher. The situation of Vanuatu, Tonga and the Cook Islands illustrates the fact that national leaders become less vocal when aid dollars are at stake. At the same time, denuclearization cannot be achieved and enforced by civil society alone: it is essential that governments continue to formalise their concerns about nuclear issues and work towards making the entire globe nuclear-free.

#### ***Institutional Initiatives (International/Global)***

Institutions at the global/international level move primarily at the impetus of states. The United Nations, South Pacific Forum, Non-Aligned Movement, and the International Atomic Energy Agency are some examples of the many institutions which have addressed the issue of French testing. The South Pacific Forum greeted the initial announcement by sending a high-level delegation to Paris, London and Washington to seek support for the South Pacific Nuclear-Free Zone, and at the annual South Pacific Forum held in September, issued a statement in opposition to the tests, expressing their "extreme outrage." At the same time, while Prime Minister Sir Julius Chan, chair of the Forum, did announce that he was suspending official dialogue between France and the Forum, that was the only punitive measure taken.<sup>33</sup> Similarly, in September, the Non-Aligned Movement was also expected to adopt a statement against the testing at its meeting in Colombia in mid-October.

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<sup>30</sup> Tartick Decloitre, "Is Vanuatu part of the Pacific?" *Pacific Islands Monthly*, August 1995, p. 10. Vanuatu, with a population of 160,000, receives over 8 million US dollars per year in aid money from France. See also Karin von Stokirch, "The Political Fallout from French Testing in the Pacific," *Pacific Research*, August 1995, p. 8.

<sup>31</sup> Lisa Williams, "Aid or Radiation?" *Pacific Islands Monthly*, August 1995, p. 9. Beginning in emergency relief after Cyclone Sally in 1987, the Cook Islands have received direct grants and technical assistance from France, as well as a multi-million dollar water and power project. They also get free television, except for the local broadcasts six hours/day.

<sup>32</sup> Thakur, *op.cit.*, pp. 27-8.

<sup>33</sup> *Ibid.*, p. 24. and *Pacific Islands Monthly*, November 1995, p. 24.

The United Nations is of course the venue of preference for dealing with these kinds of issues, particularly since 1995 marked its 50th anniversary and was chosen by the South Pacific Forum as the focus for its lobbying efforts. Unfortunately, there is more to UN negotiations than opposition to nuclear testing, and the South Pacific Island countries found difficulty counting on very many allies due to other political considerations, such as Australia's bid for election to the Security Council. The greatest support came from the other members of the Association of Small Island Countries. On 31 October 1995, a bill was submitted to the General Assembly by 26 countries, including Japan, Australia, Canada, Norway and many Latin American States. The bill called for the cessation of all nuclear tests, but did not mention China and France by name.

The French tests have also promoted renewed efforts for the establishment of regional nuclear-free zones, for example, in Asia and Africa. The ASEAN proposal for a Southeast Asia Nuclear-Free Zone Treaty is to include all the countries of Southeast Asia and bans the development, manufacture, possession and other control of nuclear weapons, nuclear testing and the dumping of radioactive wastes and other materials on land or in the sea. Like the SPNFZ, however, it does not deal with the high seas, and leaves port calls to the discretion of the individual countries.<sup>34</sup> French (and to a lesser extent, Chinese) testing also has created momentum for the establishment of a truly Comprehensive Test Ban Treaty (CTBT) in 1996. France, for example has agreed to a "zero-yield" option, totally abandoning nuclear tests, and the United States has also agreed to the same. China, on the other hand, has agreed to the principle but seeks exceptions for low-yield explosions for peaceful purposes. In this sense, the negative act of resuming nuclear tests has created political pressure for action at the international level which may in fact lead to broader and more effective controls on nuclear activities.

Two other related initiatives must be mentioned. One is the awarding of the Nobel Peace Prize to the Pugwash Conference and the other is the case before the International Court of Justice questioning the legality of the use of nuclear weapons. The Nobel Peace Prize award, while not a direct statement against France and China, is a very strong insinuation that at least in some parts of international society, nuclear tests are not welcome. Similarly, the timing of the tests to coincide with the 50th anniversary of the bombing of Hiroshima and Nagasaki, the end of World War II and the birth of the United Nations, combine to put public pressure on, and draw interest toward, the ICJ decision.

It has already been suggested that the institutionalization of efforts for denuclearization in the form of treaties and conventions is an important goal. In the Pacific, the South Pacific Forum is the primary forum for such efforts. In addition to the waste ban convention, work to expand the area of the South Pacific Nuclear-Free Zone Treaty to include Micronesia and the Pacific north of the equator is important. In addition, the coordination of efforts for denuclearization with those in Asia and other regions is also essential. International pressure through solidarity networks must be brought to bear on countries such as France which are reluctant to comply with nuclear-free efforts.

At the international level, it is also encouraging that efforts are being made by both governments and nongovernmental bodies to increase opportunities for dialogue in the region. The establishment of fora such as the ASEAN Post Ministerial Conference (to which Papua New Guinea is a party) and the ASEAN Regional Forum are important because they provide venues for discussion about regional cooperation. As was mentioned earlier, the French and Chinese tests have galvanized efforts to create a Southeast Asian Nuclear-Free Zone Treaty, to be discussed at the Ministerial Conference in Bangkok in October, and revived talk of a similar zone in Africa. The creation and expansion of regional nuclear-free zones, especially if they can then be linked, can be a positive move in the direction of nuclear arms limitation and control. At the same time, if regional initiatives at any level are to be effective, they must involve all regional members, large and small or independent or not. It is unfortunate that most of the regional confidence building measures in the "Asia-

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<sup>34</sup> Draft Proposal for a Treaty on Southeast Asia Nuclear-Free Zone, Article 3.

Pacific" region do not involve the Pacific Island Countries, and it is hoped that future efforts in the direction of greater regional understanding will be expanded to include them.

### ***Industry***

The response of industry to the French announcement has been mixed. It involves, on the one hand, the response to the various boycotts against French products. It also involves, however, the international nuclear industry, as many of the same countries that have been opposing nuclear testing also are involved in cooperative relationships with the nuclear industry in France. Of particular significance is the Australian uranium industry, which exports uranium to France, and the Japanese nuclear power industry, which sends spent fuel to France for reprocessing.

These industrial connections can have many different implications. On the one hand, since governments are closely involved in nuclear power and uranium mining industries, the existence of these relationships takes authority away from those governments when they express objections to the testing itself. With regard to Japan, the argument is made that it is very likely that plutonium from Japanese spent fuel has been used in the manufacture of the devices being exploded at Moruroa.<sup>35</sup> This argument, when made internally, allows the anti-nuclear power forces to join with the anti-nuclear weapons-testing forces, creating a much stronger opposition.<sup>36</sup> When directed against Japan from the outside, however, this same irony serves to deflect Japan's argument, since in criticizing France, it is essentially biting the hand that feeds it. The same can be said for Australia, whose initial protests were greeted with an announcement by France that it would no longer purchase Australian uranium, and whose own government was reluctant to stop uranium sales. Recently, however, the Labour Party approved a bill which would stop Australia from entering into any new contracts until the CTBT is in place and signed by France. The current contract expires in 2001, and calls for the export of roughly 300 tons of uranium to France.<sup>37</sup>

### ***Inter-Level Cooperation***

The above demonstrates that particularly in issues like testing, there is not only room for inter-level cooperation, both in an organization/policy sense and also in terms of issue orientation, but that if protest is to be successful, there must be cooperation among the various levels. Moreover, with problems such as nuclear testing which encompass a wide range of issue areas, there must be cooperation and coordination among different issue groups. Thus, if nuclear testing is seen primarily as an environmental issue, then it can be the focus of efforts for environmental protection. At the same time, since it is also a security issue, it must be addressed and analysed within the context of international security regimes. In this sense, the recent NPT negotiations certainly come into play, as do those for a comprehensive test ban treaty.

An example of a forum for one type of interaction would be the current issue of the establishment of the illegality of the use of nuclear weapons at the international Court of Justice. Actions for or against French testing can influence that decision, and that decision can in turn influence actions for and against testing. At the same time, focusing on legal issues often means that many of the wider issues are discarded as being irrelevant to the point of law in question. Thus, along with the ICJ testimony, there could be an NGO Tribunal,

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<sup>35</sup> Takemura, loc. cit.

<sup>36</sup> In Japan, anti-nuclear, unless otherwise stated, generally refers to opposition to nuclear weapons and war, not to nuclear power, which is seen to be a separate issue.

<sup>37</sup> "No sales of uranium," *Asahi Shimbun*, 1 October 1995.



for example, which would give NGOs, governments, local authorities, international organizations and other interested parties an opportunity to testify regarding the broader issues involved, thereby allowing for more meaningful discussion both in and outside of the courtroom.

It is for this reason that the involvement of grass roots organizations in the establishment of security policy is so important, both on a national and international basis. The transnational nature of international society is well accepted, yet unlike areas such as development and environment, the nation-state remains the only recognized actor at the decision-making level when it comes to international security, although many NGOs are involved in implementation. Since security policy by definition influences the security of us all, then it stands to reason that we should all be involved from the start in determining what that policy ought to be.

### **Conclusion: Challenges and Future Directions**

There was, unfortunately, little chance that the French government would actually stop its testing program, although the total number of tests eventually was reduced from eight to six. There are, however, some lessons to be learned from the whole experience, and some indications of where nuclear-free and peace movements should concentrate their energies in the future. What follows is a brief look at some of them.

It has been asserted that true security must be participatory, and come from the bottom up rather than top-down. In this conceptualization of security there is an important role for civil society. At the same time, unlike governments and states, there are not at present any standards or safeguards for monitoring the behaviour of organizations of the civil society. In this context, Greenpeace provides an interesting example because a major question remains as to whether or not it went too far in its efforts.

The basic moral/theoretical question posed here is whether, or under what circumstances, NGOs can engage in activities which they know to be against the law. Put another way, the question is whether, or perhaps when, the civil society and its organizations are justified in taking the law into their own hands. There is at present no guarantee that NGOs will behave with any more social responsibility than states. Yet if NGOs are to be actively involved in the creation of security policy, this question must be addressed, particularly since it is clear that without the work of NGOs and other organizations of civil society, very little social change can happen at all. Thus the issue comes back to that which was mentioned at the beginning of this paper: how can legitimacy be given to NGOs as organizations to deal as actors on the international scene and subjects of international law, and how can and should this be regulated?

Another related issue regards size. In a region of very small countries like the South Pacific, international NGOs such as Greenpeace have larger annual budgets than states. While this fact alone underscores the need for protection from overly zealous organizations, it also suggests that there is a role for such organizations in helping extremely small states maintain their independence through helping them stand up to the demands of the donor nations. In the Pacific, for example, one role for solidarity groups in other parts of the world might be to help island leaders to maintain their nuclear-free stance by providing international support for their activities. Another role might be financial support for joining the United Nations, or for lobbying in that and other international organizations.

One of the lessons of the French testing is that efforts for denuclearization in the Pacific must be linked with those for decolonialization and must also be made to work in conjunction and cooperation with similar efforts for denuclearization, democratization and demilitarization in Latin America and Asia, particularly Pacific Asia. The original idea of nuclear-free zones was to create pockets of regional trust and confidence which could eventually be expanded to encompass the entire world. The nuclear-free Pacific, like the countries within it, does not and cannot exist in a vacuum. It is only through a denuclearized and demilitarized Asia that a truly nuclear-free Pacific can be achieved, and perhaps it is only through a truly nuclear-free Pacific Asia that steps can be taken to achieve a denuclearized and demilitarized south and west Asia. The current experience with France, however, has demonstrated that the only real way to control nuclear weapons is to abolish them

completely. It would be nice indeed if the International Court of Justice ruled that the use of nuclear weapons was illegal, but that decision seems unlikely at this time.

However, the sad truth is that merely abolishing nuclear weapons is not enough. Even if all of the nuclear warheads in the world were dismantled, we would still be left with huge quantities of weapons grade plutonium and highly enriched uranium. It is estimated that 257 tons of plutonium will be left over after the dismantling of the warheads listed in the START and SALT I and II negotiations, and those agreements do not say anything about disposal of radioactive materials. But if just 150 kilograms of plutonium were spread evenly over the world, everyone could get lung cancer. What will happen to the "leftovers" of disarmament? It appears likely that they will be buried somewhere—most likely in regions far from population and economic centres—like the Pacific Islands. In fact, the Marshall Islands are already involved in negotiations for establishing a nuclear waste disposal site on some uninhabited atolls. Unfortunately, it is extremely difficult for small countries to resist the attraction of large sums of foreign exchange. It is therefore essential that agreements for disarmament include provisions for the disposal and management of the radioactive garbage. Perhaps if such agreements were really enforced, this would discourage people from making such things in the first place.

If the people, islands and seas are to be truly safe, not only nuclear weapons, but all nuclear activities must be stopped. At the very least, the dumping, disposal and transport of nuclear wastes should be the target of activities at every level of civil, national and international society. The example of the relationship between Japanese plutonium and French testing has shown that the line between "peaceful" and "military" use of nuclear substances is very fine indeed. In this context, current initiatives in the Pacific and elsewhere for the establishment of a waste-ban treaty, including radioactive wastes, should be encouraged and promoted. At the same time, there is a need with these very dangerous substances to stop contamination before it happens. Tribunals such as the one mentioned earlier can help to direct public interest toward that goal.

One of the underlying premises of endogenous security is that people are entitled to live free from insecurity; another is that in order to be secure, people must be able to choose the kind of political environment in which they live. In the Pacific, this means not only freedom from radioactive contamination, but also self-determination. Until these fundamental conditions are met and addressed to the satisfaction of the people in the region, it cannot be nuclear-free and its people cannot be truly secure.

Susanna Ounei-Small has been involved in the struggle for independence in Kanaky (New Caledonia), another of France's Pacific colonies. The conclusion to her presentation at the Women's Conference in Beijing is, I believe, a most appropriate conclusion for this paper as well, as it addresses not only freedom from nuclear insecurity and foreign rule, but also another fundamental principle of endogenous security—control over one's environment and one's own life. Thus in conclusion, I will take the liberty of quoting her at length.

As women, we know better than most that human security is not just independence, although it must include independence. It means freedom from military intimidation, and it means freedom from personal intimidation. It means control over the resources of one's land, and control over one's own life. It means an environment safe from the hazards of nuclear poisoning and the diseases brought by foreign occupying armies. It will not be easy, but women know how to fight long and difficult battles. We will achieve true liberation, true human security, true protection of our human rights, and true dignity for ourselves and our children. We will achieve it as activists united together in the Pacific and across the world. And in the process, we will teach our brothers to deserve their independence in the way they treat their women as well.<sup>38</sup>

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<sup>38</sup> Susanna Ounei-Small, "Threat for Peace and Human Security," Speech at the NGO Strategy Plenary Meeting, Beijing, September 1995.

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**PART III**  
**ZONES OF PEACE**

# MARITIME ZONES OF PEACE IN INTERNATIONAL LAW: THE INDIAN OCEAN AND THE SOUTH ATLANTIC

*Surya Subedi*

## Introduction

The origin of the concept of a Zone of Peace (ZOP) may be traced to the Lusaka Declaration of the 1970 Non-Aligned Summit Conference, in which the Non-Aligned Countries called upon the UN General Assembly to adopt a Declaration on the Indian Ocean as a ZOP. Subsequently, in 1971, the General Assembly adopted a resolution declaring the Indian Ocean a Zone of Peace (IOZP).<sup>1</sup> In 1986, the UN General Assembly adopted another Declaration creating a Zone of Peace and Cooperation in the South Atlantic (ZOPC).<sup>2</sup> Two other proposals for ZOP relative to the Mediterranean and the South Pacific have been mooted in the UN.

Thus, the General Assembly has, since 1971, produced a number of resolutions on ZOP raising important legal issues, and this topic has attracted the active interest of a considerable majority of member States of the UN. However, certain States have opposed the creation of ZOP in the Indian Ocean and the South Atlantic, maintaining that such zones are inconsistent with the existing rules of international law, especially the freedom of the high seas and the right of self-defence of States. The major maritime Powers have viewed the move to declare the maritime areas beyond national jurisdiction as a roundabout way of extending coastal States' control over the movement of foreign warships in an area of the high seas. Some of these States have also objected to the way such zones have been created, i.e., through General Assembly resolutions rather than international treaties.<sup>3</sup>

Other States, however, maintain that the concept of a ZOP is consistent with a trend witnessed in recent decades in the development of international law and practice towards the principle that areas not assimilated into national jurisdiction constitute an international domain that should be subject to international regulation.<sup>4</sup> They have asserted that the creation of ZOP in maritime areas of *res communis* character is in accordance with the principle of the use of the seas for peaceful purposes and not in contravention of the principle of the freedom of the high seas and the right of self-defence of States. Thus, many of the maritime strategic and navigational issues discussed and resolved to a great extent during the lengthy Third United Nations Conference on the Law of the Sea (UNCLOS III) have re-surfaced with the attempts to establish maritime ZOP.

The major maritime powers which were opposed to the idea of such zones have now begun to change their posture. For instance, the United States recently dropped its opposition to the idea of a ZOP in Southeast

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<sup>1</sup> Resolution 2832 (XXVI) of 1971, adopted by 61 votes to 0, with 55 abstentions.

<sup>2</sup> Resolution 41/11 of 1986, adopted by 124 votes to 1, with 8 abstentions.

<sup>3</sup> For instance, referring to the IOZP Declaration, the US rejected the "view that a group of States in a certain region can establish a legal regime for the high seas in that region." UN Doc. A/C/1/PV.1849, p. 5.

<sup>4</sup> See the views of Amerasinghe, the Sri Lankan ambassador to the UN and the President of UNCLOS III, in UN Doc A/8492 and Add.1.

Asia<sup>5</sup> and a Nuclear-Free Zone (NFZ) in the South Pacific.<sup>6</sup> These States have begun to realize that the creation of such zones would enhance the security of the region and promote regional and global disarmament.

It is in this context that this paper aims to examine the practice of States within and outside the UN concerning the Indian Ocean as a Zone of Peace and the South Atlantic as a Zone of Peace and Co-operation and analyse the UN Declarations on the Indian Ocean and the South Pacific.

### **The Indian Ocean as a Zone of Peace**

The concept of the Indian Ocean as a Zone of Peace (IOZP) originated at the Second Conference of the Heads of State or Government of Non-Aligned Countries, held in Cairo in October 1964. The Conference supported the idea of the establishment of Nuclear-Weapon-Free Zones (NWFZs) in various parts of the world, including Asia.<sup>7</sup> This idea was later broadened to exclude both nuclear and conventional weapons and foreign military bases from the Indian Ocean.

The Third Summit Conference of the Non-Aligned Countries held in Lusaka in September 1970 formally endorsed this proposal and called for the adoption of a declaration by the UN General Assembly on the Indian Ocean as a Zone of Peace.<sup>8</sup> As the Non-Aligned Movement (NAM) sought in its early stages to close the territories of the Non-Aligned States to great power conflicts and rivalries, it was, in their view, quite reasonable to extend that prohibition to the waters of the Indian Ocean, surrounded mostly by Non-Aligned States.<sup>9</sup> Thus, the wish to deny the great powers the use of the Indian Ocean for military purposes seems to be the main motivation behind the proposal for the declaration of the Indian Ocean as a Zone of Peace.

The following year Sri Lanka, as a member of the NAM and a State in the Indian Ocean, took the initiative and requested the UN Secretary-General to include on the agenda for the twenty-sixth session of the General Assembly an item entitled "Declaration of the Indian Ocean as a Zone of Peace." In his letter to the Secretary-General the Sri Lankan ambassador to the UN, Mr. Amerasinghe, spelt out the main features of the Sri Lankan proposal in the following terms:

The entire high seas area of the Indian Ocean will be declared a peace zone to be used exclusively for peaceful purposes. This would mean the exclusion of armaments, defensive or offensive, and military installations from the prescribed area. Warships and ships carrying warlike equipment will exercise the right of transit but may not stop other than for emergency

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<sup>5</sup> "US drops its objections to Asia Nuclear-Free Zone," in *International Herald Tribune*, 1 August 1995, p. 1.

<sup>6</sup> "US to back Pacific Nuclear-Free Zone," *International Herald Tribune*, 18 September 1995, p. 1.

<sup>7</sup> See in O. Jankowitsch and K.P. Sauvart (ed.), *The Third World Without Superpowers: The Collected Documents of the Non-Aligned Countries*, Vol. I (1978), pp. 54-5. The Conference condemned the intention of certain States "to establish bases in the Indian Ocean, as a calculated attempt to intimidate the emerging countries of Africa and Asia." In Part VII of the Cairo Declaration, the Conference recommended the establishment of denuclearized zones in Asia, Africa and Latin America.

<sup>8</sup> Paragraph 8 (6) of Resolution (K) of the Lusaka Conference of the Non-Aligned Countries reads as follows: "A declaration should be adopted calling upon all States to consider and respect the Indian Ocean as a zone of peace from which great Power rivalries and competition,...either army, navy or air-force bases, are excluded. The area should also be free of nuclear weapons." Jankowitsch and Sauvart, *ibid.*, p. 105.

<sup>9</sup> See UN Doc. A/C.1/PV.1815 of 2 November 1971, para. 39.

reasons of a mechanical, technical or humanitarian nature. The use of the sea-bed area by submarines, except for reasons of a mechanical, technical or humanitarian nature, is to be prohibited. There will be a prohibition on naval manoeuvres, naval intelligence operations and weapons tests in the area.<sup>10</sup>

The idea of the application of the principle of 'peaceful purposes' to the ocean space had been endorsed by a General Assembly resolution (Resolution 2749 (XXV))<sup>11</sup> just a year before this proposal was launched. The sponsors of the IOZP proposal seem to have drawn upon the concept embodied in this Resolution. Addressing the twenty-sixth session of the General Assembly in October 1971, Mrs. Bandaranaike, the then Prime Minister of Sri Lanka, who had come to the UN chiefly to launch the proposal for the establishment of the Indian Ocean as a Zone of Peace, stated that the transformation of the Ocean into a ZOP would make it not only free of nuclear weapons but also free from great Power rivalry and competition. She went on to say that

It was the intrusion of those Power rivalries into the Indian Ocean that resulted in the loss of political freedom in Asia in the eighteenth century. We certainly do not wish to see a recurrence of that situation. Our object is to contain the activities of foreign Powers and ensure that they do not make our part of the world a battleground for their rivalries.<sup>12</sup>

While taking part in the debate on the topic in the First Committee of the General Assembly, the Sri Lankan ambassador said that the proposal "seeks to apply the principle of the reservation of an area exclusively for peaceful purposes to one of the major oceans of the world and exclude from it not merely nuclear weapons but even conventional weapons."<sup>13</sup> However, he added:

We have no desire whatsoever to interfere with the peaceful uses of the sea lanes, uses that do not threaten the security of the littoral States or of the immediate hinterland States or endanger their vital interests in any way. Our proposal will, therefore, take full account of the need for those sea lanes to be kept open to all countries for peaceful purposes.<sup>14</sup>

He argued that the interests of the littoral States in the maintenance of peace in the area were paramount and that all other factors "should be subordinated to this overriding factor."

During the debate on the topic in the First Committee, most major maritime Powers expressed their fear that the proposal might imply that the free and unimpeded use of the high seas and the air space above may be restricted *vis-à-vis* warships and military aircraft under certain conditions.<sup>15</sup> The Soviet representative said that the declaration of the Indian Ocean as a ZOP must not lead to the undermining or weakening of the

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<sup>10</sup> UN Doc.A/8492 and Add. 1.

<sup>11</sup> This resolution was adopted by 104 votes to 0, with 14 abstentions.

<sup>12</sup> GAOR, Twenty-Sixth Session, 1962nd Plenary Meeting, 12 October 1971, p. 3.

<sup>13</sup> UN Doc.A/C.1/PV.1815, p. 4.

<sup>14</sup> *Ibid.*

<sup>15</sup> See UN Doc. A/C.1/PV. 1802-1831 in *Official Records of the General Assembly, Twenty-Sixth Session, First Committee*, Vol. I, and for UN Doc.A/C.1/PV.1832-1857 in Vol. II.

existing principles of international law, including the freedom of the high seas, as laid down in the 1958 Geneva Convention on the High Seas (HSC). He maintained that “this Convention provides for freedom of navigation for all vessels, including warships, and freedom to engage in scientific research using such vessels.”<sup>16</sup> The United Kingdom delegate stated that:

Historically the United Kingdom has played a leading role in preserving peace in the Indian Ocean, an area traversed by some of the most important trade routes in the world. For many decades the protection against piracy afforded by the presence in the area of the Royal Navy has been an important factor in the development of that trade which has been of the greatest mutual benefit to the littoral States and their trading partners... Our military facilities in the area stem from and are related to these responsibilities and in no sense, of course, do they present a threat to any littoral State in the Indian Ocean. We cannot agree to proposals aimed at action which would in practice prevent us from fulfilling these responsibilities which include, in some cases, binding commitments ...we cannot agree to proposals which could result in impediments being placed in the way of our lawful commerce or which could prejudice the facilities which that commerce requires.<sup>17</sup>

The US representative outlined the US difficulties in accepting the proposal:

It actually places the General Assembly in the position of approving general language in an area which infringes upon disarmament and the law of the sea without the usual careful consideration associated with these subjects ... We reject the view that a group of States in a certain region can establish a legal regime for the high seas in that region. This may affect the fundamental security interests not only of States compelled to maintain significant military preparedness in this all too imperfect world, but also of States that rely on the stability created by a political and military balance in order to pursue other important national goals and to avoid diverting too much of their attention and resources to matters of security.<sup>18</sup>

The New Zealand delegation maintained that the proposal could not limit in any way the right to individual and collective self-defence expressed in Article 51 of the Charter of the UN.<sup>19</sup> Responding to the apprehensions raised by representatives of various States about the possible infringement of the principle of freedom of navigation by the establishment of the Indian Ocean as a ZOP, the Sri Lankan ambassador stated that:

Freedom has meaning only if it does not result in the destruction of freedom and we cannot possibly subscribe to any definition of the freedom of the seas as implying the right to create conditions of anarchy or to roam at will threatening all and sundry. That was not how the concept of the freedom of the high seas was born. It was born out of the desire to prevent piracy and we want to keep it in that form, to prevent a new form of piracy. What we state in

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<sup>16</sup> UN Doc.A/C.1/PV.1841, p. 9.

<sup>17</sup> UN Doc.A/C.1/PV.1848, pp. 11-13.

<sup>18</sup> UN Doc.A/C.1/PV.1849, p. 3.

<sup>19</sup> *Ibid.*, p. 5.



this draft resolution is that we do not need the military protection of great Powers. We want to free ourselves from the necessity of being dependent upon them for military protection and we can achieve that only if we accept in good faith and full determination a concept such as this, the declaration of an area as a zone of peace.<sup>20</sup>

He raised a question:

Must the wishes of a large group of small nations ... be subordinated to the interests of the great Powers that wish to be free to send their vessels for any purpose whatsoever into the Indian Ocean, not only their vessels of peace but their vessels of war?

He then added that "We cannot possibly in this age and time subordinate the peaceful interests of these small States to the will, to the prejudices and predilections of the great Powers. And it is that understanding that we want from them."<sup>21</sup>

He interpreted the doctrine of the freedom of the high seas in his own terms and maintained that the IOZP proposal was by no means an infringement of any right that can legitimately be claimed under the doctrine. The proposal

would permit vessels, even naval vessels which are engaged in research, to conduct that research without any interference. It would permit warships moving across the Indian Ocean from east to west or west to east going on their mission of war or peace ... so long as they are not there to threaten the sovereignty, territorial integrity or independence of any littoral or hinterland State.<sup>22</sup>

Prior to this, in her speech to the General Assembly, Mrs. Bandaranaike had stated that,

It may be argued that a zone of peace in an ocean area would be incompatible with a body of customary and conventional international law which seeks to preserve the seas beyond territorial waters as open to all nations. There is no reason why this concept should not be modified to accommodate the needs and realities of the world of today. One may go so far as to say that the principle of the freedom of the high seas does not adequately serve the fundamental interests of all nations alike but is clearly weighted in favour of the interests of the dominant user nations. This inequality must be redressed.<sup>23</sup>

Thus, the proposal for the establishment of a ZOP in the Indian Ocean can be regarded as an attempt to define the traditional principle of the freedom of the high seas according to the modern principle of the use of the high seas for peaceful purposes. This approach, which would limit certain activities of the navies of the great Powers, was not acceptable to the major naval Powers. In their view, the IOZP proposal would imply the

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<sup>20</sup> UN Doc.A/C.1/PV.1842, p. 12.

<sup>21</sup> *Ibid.*

<sup>22</sup> *Ibid.*, p. 14.

<sup>23</sup> GAOR, 1962nd Plenary Meeting, 12 October 1971, p. 3.

recognition for certain States of new rights likely to impair or assail the principle of freedom of navigation on the high seas for all types of vessels; the principle of the freedom of navigation being one of the most ancient and unchallengeable rules of international law could not be modified—even in a limited geographical region—by a General Assembly resolution.

However, on 16 December 1971, the General Assembly adopted a Declaration (Resolution 2832 (XXVI)), by 61 votes to 0, with 55 abstentions, declaring the Indian Ocean, within limits to be determined, together with the air space above and the ocean floor subjacent thereto, for all time, a Zone of Peace.

The IOZP proposal is a more complicated proposition than any previously declared NWFZs; it is not confined to nuclear weapons and other weapons of mass destruction but covers in addition military bases and installations conceived in the context of great Power rivalry. The declaration attempts not only to regulate the use of the Indian Ocean by warships but also to impose new restraints on the use of force. It is radical from four different perspectives: firstly, it seeks to transform the entire Indian Ocean, a huge area of the globe, not merely into a NWFZ but into a ZOP, a zone that can be likened to a demilitarized zone. In this sense, paragraph 2(b) of the Declaration could be regarded as a measure of limited demilitarization of the Indian Ocean.

Secondly, such transformation is sought under a General Assembly resolution rather than a multilateral treaty. The declaration does not speak of the need for a multilateral treaty to establish a ZOP in the Ocean. Of course, it mentions the need for multilateral negotiations but such negotiations are required merely to *implement* the Declaration but not to *establish* a ZOP in the Indian Ocean.

Thirdly, the declaration, a resolution of the General Assembly which does not have a binding force, seeks to define the principle of freedom of navigation in the light of the principle of the use of the high seas for peaceful purposes. The restrictions imposed on the movement of warships under paragraph 3(a) of the Declaration can be characterized as a measure of limited modification of the principle of freedom of navigation in so far as its application in the Indian Ocean is concerned. Here it is worth noting that these restrictions are aimed at preventing *all* States, whether *regional* or *nonregional*, from using the Indian Ocean for warlike purposes.<sup>24</sup> The purpose of this paragraph seems to be to avoid confrontation in the Indian Ocean in times of peace and confine the hostilities to the areas within national jurisdiction of belligerents in times of war.

Fourthly, the Declaration seeks to strengthen and extend the scope of Article 2(4) of the Charter of the United Nations. The IOZP Declaration seeks to regulate the use of the Indian Ocean for military purposes and imposes new restrictions on its use. Whereas the prohibition in Article 2(4) does not prohibit the *preparations* for offensive wars as well as the use of the high seas or any areas of *res communis* character for such purposes, in so far as such preparations do not amount to a threat or use of force, the main principles of the IOZP, as set out in the operative paragraphs of the declaration, appear to provide for certain restrictions to this effect too.

These principles are new elements which appear to extend the scope of Article 2(4) as no other rule of international law explicitly prohibits the establishment of military bases in the marine areas beyond the 12-mile territorial waters of other States or requires the disposal of all weapons of mass destruction or restricts the use of such areas by warships and military aircraft. These provisions can be regarded as attempts to formulate

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<sup>24</sup> In this sense this provision can be likened to neutralization. The prevention of the use of the territory in question for military purposes by outside powers is a major principle of the doctrine of neutralization.

third generation rules to avoid confrontation.<sup>25</sup> But the question remains as to whether these attempts are consistent with the existing rules of international law.

Two international conferences, one attended only by the littoral and hinterland States of the Indian Ocean and the other including the great Powers and the major maritime users of the Indian Ocean, were envisaged in order to conduct consultations and negotiations aimed at implementing the Declaration. A conference of the littoral and hinterland States of the Indian Ocean took place in 1979 and a set of principles to implement the IOZP declaration was adopted. But the proposed international conference attended by the littoral and hinterland States of the Indian Ocean and all other major maritime users of the Ocean has not yet taken place. The General Assembly has repeated its call for such a conference year after year in its resolution since the 1970s but it has not been possible to convene such a conference since there is no agreement among the member States of the UN on the agenda of such a conference or the content of any international instrument to be approved by such a conference. An *Ad Hoc* Committee on the Indian Ocean was established in 1972 by the General Assembly to study the implications of the IOZP Declaration with special reference to the practical measures that might be taken in furtherance of the objectives of the Declaration. This Committee has been holding meetings year after year to harmonize the views of different States as to the ways and means of implementing the UN Declaration on the IOZP and to facilitate the convening of an international conference on the Indian Ocean. However, the problem is again disagreement among the members of the Committee on the ways and means of implementing the 1971 IOZP Declaration.

Certain major maritime Powers question the validity of certain of the principles of the 1971 Declaration. They regard it as faulty and outdated, inconsistent with the right to individual and collective self-defence of States, and difficult to reconcile with freedom of navigation. Although the socialist States did support the idea of eliminating great Power military bases from the Indian Ocean, they reserved their position with regard to the restrictions on the use of the Indian Ocean for other military purposes. The group of Non-Aligned States, on the other hand, disagrees with the objections of major maritime Powers, remarking that the 1971 Declaration is appropriate and reflects their genuine concerns.

Citing this disagreement, most Western States maintain that it is pointless to convene a conference on the IOZP before agreeing, in the Committee, on its basic principles. In their view, this would not only facilitate the work of the Conference but also ensure a fruitful outcome. But the Non-Aligned States argue that, since the 1971 Declaration and the 1979 Final Act of the Meeting of the Littoral and Hinterland States spell out the basic principles of the IOZP concept, a complete harmonization of views is not essential prior to the convening of the Conference. In their opinion, the Conference itself would be a stage in the process of reaching the objective of making the Indian Ocean a ZOP.

Although the Non-Aligned States are in the majority on the Committee, they are prevented from taking any decisions without the support of the great Powers as the Committee's rules require consensus in its decisions. Moreover, a Conference not supported by great Powers is unlikely to achieve any significant success. Therefore, the Committee has spent a long time trying to harmonize the views of its members on the subject without much success.

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<sup>25</sup> The rules which merely outlaw war as a national policy (e.g., the rules laid down in the Kellogg-Briand Pact of 1928) can be regarded as first-generation rules. The second-generation rules could be said to be those which are laid down in the Charter of the UN; they go much further than the first-generation rules. While Article 2(4) of the Charter broadens the scope of the rule of the prohibition of the use of force, Article 51 limits the scope of the right of States to use force for self-defence; it requires the occurrence of an armed attack to invoke the right to use force for self-defence.

### **The South Atlantic as a Zone of Peace and Cooperation**

The idea of the establishment of a Zone of Peace and Co-operation (ZOPC) in the South Atlantic was first raised officially in 1985 by President Sarney of Brazil, the largest country in the region, in his address to the UN General Assembly. It should be remembered that it was Brazil which had initiated the idea of an NWFZ in Latin America soon after the Cuban missile crisis in 1962. Brazil's initiative had actually resulted in the conclusion of the Tlatelolco Treaty.<sup>26</sup> Brazil made an even more ambitious disarmament proposal for the region; the ZOPC can be likened to a demilitarized zone. This was after the Falkland Islands war of 1982 (when the British had deployed nuclear warships in the South Atlantic), the alleged testing of a nuclear bomb in the South Atlantic by South Africa in collaboration with Israel<sup>27</sup> and the increase in the military activities of major naval Powers in the region in the 1980s.

President Sarney announced to the UN General Assembly that "Brazil will make every effort within its power to ensure that the South Atlantic is preserved as an area of peace, shielded from the arms race, the presence of nuclear arms and any form of confrontation originating in other regions."<sup>28</sup> Following this announcement, a letter from the Brazilian Minister of External Relations was sent to the Secretary-General of the UN requesting the inclusion of an item entitled "Zone of Peace and Cooperation of the South Atlantic" in the provisional agenda of the forty-first (1986) session of the General Assembly. The letter stated that,

The international community ... has been witnessing recurrent trends of a naval military build-up, quantitative as well as qualitative, with the consequent geographic proliferation of nuclear weapons without regard for the right of non-nuclear countries to live in peace and security.<sup>29</sup>

The Minister continued:

In this connection, the declaration of the South Atlantic as a zone of peace and cooperation is a logical follow up for other outstanding initiatives such as the Treaty of Tlatelolco on the prohibition of nuclear weapons in Latin America, and the Organization of African Unity's Declaration on the Denuclearization of Africa.<sup>30</sup>

The proposed item was included in the agenda of the forty-first session of the General Assembly. Introducing the draft resolution on the ZOPC the Brazilian foreign minister stated that:

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<sup>26</sup> 634 *United Nations Treaty Series*, 281.

<sup>27</sup> See T.T. Poulouse, "The United Nations and arms control: nuclear proliferation," in UNITAR, *The United Nations and the Maintenance of International Peace and Security* (1987), p. 392.

<sup>28</sup> UN Doc. A/40/PV.4, pp.14-15.

<sup>29</sup> UN Doc.A/41/143 of 29 May 1986. It was reported in the press that during the Falkland Islands crisis the British deployed nuclear weapons in the South Atlantic and the Argentinians considered this to be a violation of the Tlatelolco Treaty. The reports said that two British ships which were sunk—the *Sheffield* and the *Coventry*—were carrying nuclear depth bombs. As cited in W.M. Arkin *et al.*, "Ocean space and nuclear weapons: the geo-strategic environment," in R.B. Byers (ed.), *The Denuclearization of the Oceans* (1986), pp. 21, 32.

<sup>30</sup> UN Doc. A/41/143 of 29 May 1986, p. 2.

The time has come to formulate and proclaim a well-articulated set of principles and norms which, taking into account the legitimate interests of the countries of the region of the South Atlantic, will contribute to the peace and security of that area as well as strengthening the links of cooperation and solidarity between the peoples on both sides of the ocean.

He outlined the necessity for the creation of the proposed zone: "We are convinced of the need to preserve the South Atlantic from measures of militarization, from the arms race, from the presence of foreign military bases, and above all from nuclear weapons."<sup>31</sup> He went on to say that:

The moment at which we propose a framework for this new understanding comes shortly after the culmination of a long process of drafting a new law of the sea. The South Atlantic countries, which participated in this undertaking in an effective and constructive way, have every reason to dedicate themselves with enthusiasm to the application of its results. Cooperation within the South Atlantic zone, in all its aspects, must be carried out with full respect for the principles and norms of the law of the sea, and, in particular, with the principle that the oceans shall be used for peaceful purposes.<sup>32</sup>

Thus, Brazil, which had made a declaration while signing the Law of the Sea Convention to the effect that the principle of the use of the high seas for peaceful purposes did not permit certain military activities in the seas,<sup>33</sup> clearly indicated that the ZOPC proposal was an attempt to apply the results of the negotiations conducted at the UNCLOS III, especially those concerning the principle that the oceans shall be used for peaceful purposes. Being fully informed of the Brazilian efforts to link the ZOPC with Articles 88, 138 and 141 of the LOSC, the overwhelming majority of States taking part in the deliberations of the General Assembly on this item supported the Brazilian draft resolution and it was adopted by 124 votes to 1, with 8 abstentions.

The US was the only State to vote against the resolution. Abstaining States were Belgium, France, Federal Republic of Germany, Italy, Japan, Luxembourg, the Netherlands and Portugal. The US opposition was based on the following grounds:

- (a) the resolution inadequately defined the waters that would be covered and specifically excluded the littoral and hinterland States of the South Atlantic region from the zone;
- (b) the resolution attempted to create an internationally recognized zone of peace through the adoption of a General Assembly resolution, rather than as the result of multilateral negotiations; and
- (c) the resolution continued to imply that restrictions should be placed on naval access to and activity in the South Atlantic Ocean. Such restrictions would be inconsistent with the

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<sup>31</sup> UN Doc. A/41/PV.50, p. 7.

<sup>32</sup> *Ibid.*, p. 8.

<sup>33</sup> UN Doc.ST/LEG/SER.E/7, pp. 756 *et seq*; 5 *The Law of the Sea Bulletin* (1985), p. 46.

generally recognized principles under international law of the freedom of navigation on the high seas and the right of innocent passage through territorial waters.<sup>34</sup>

But other States, such as Brazil and Colombia, have maintained that the ZOPC Declaration is consistent with the principle of the use of the high seas for peaceful purposes.<sup>35</sup> Therefore, in their view, if the establishment of the ZOPC affects the freedom of the high seas it affects only a non-peaceful use of the high seas. From this standpoint the limitations imposed by the ZOPC Declaration on the use of the South Atlantic for military purposes are not incompatible with the freedom of navigation.<sup>36</sup>

According to the preambular paragraphs of the 1986 Declaration, the main objectives of the ZOPC appear to be to preserve the region from measures of militarization, the arms race, the presence of foreign military bases and, above all, nuclear weapons and to promote cooperation for economic development and peace between the States of the region and eliminate the causes of regional instability. In order to achieve these objectives, the Declaration requires three different courses of action from three different sets of States.

While the *States of the South Atlantic* region are called upon to cooperate, *inter alia*, for social and economic development, the protection of the environment, the conservation of living resources and peace and security of the whole region, *all States of other regions, in particular the militarily significant States*, are called upon scrupulously to respect the region of the South Atlantic as a zone of peace and cooperation, especially through the reduction and eventual elimination of their military presence there, the non-introduction of nuclear weapons or other weapons of mass destruction and the non-extension into the region of rivalries and conflicts that are foreign to it. The Declaration also calls upon *all States of the region and of all other regions* to cooperate in the elimination of all sources of tension in the zone, to respect national unity, sovereignty, political independence and territorial integrity of every State therein, to refrain from the threat or use of force, and to observe strictly the principle that the territory of a State shall not be the subject of military occupation resulting from the use of force in violation of the Charter of the United Nations, as well as the principle that the acquisition of territory by force is inadmissible.

Thus, the objectives and major legal questions raised by the IOZP and the ZOPC Declarations are very similar: both seek to halt militarization of the zone and eliminate military bases that are already there. Like the IOZP Declaration, the ZOPC Declaration creates a ZOP in the areas of *res communis* character without requiring a multilateral treaty. The ZOPC also resembles the IOZP in the sense that it attempts to create only a semi-demilitarized zone in the South Atlantic as it requires the elimination only of nuclear weapons and other weapons of mass destruction from the zone; it does not seek to interfere with the peaceful transit of all ships.

However, unlike the IOZP Declaration, the ZOPC Declaration does not explicitly impose any restrictions on the use of the waters of the South Atlantic by warships on any type of missions. Although the call for the non-introduction of nuclear weapons in the area may be interpreted as meaning non-introduction of nuclear-weapons carrying vessels in the area, the Declaration is not clear on the matter. Nevertheless, the ZOPC Declaration cites the international law principle of the peaceful use of the oceans as a legal basis of the

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<sup>34</sup> UN Doc. A/41/PV.50, pp. 51-2.

<sup>35</sup> See the statements by the representatives of Colombia in UN Doc. A/43/PV.47, p. 16 and Brazil in A/41/PV.50, p. 8.

<sup>36</sup> Since the adoption of the 1986 Declaration, the regional States of the South Atlantic have held two meetings for the furtherance of the Declaration. The first meeting was held in Rio de Janeiro in July 1988 (see the Final Document of the meeting in UN Doc. A/43/512) and the second in Abuja, Nigeria, in June 1990 (see the Final Document of the meeting in UN Doc. A/45/474). These two meetings focused more on economic, marine and pollution issues than on the legal, political and military implications of the ZOPC Declaration.

idea of ZOPC. Therefore, it is necessary to examine the scope and meaning of this law of the sea principle in order to ascertain the legal ramifications of the ZOPC Declaration.

### Problems Associated With the Declarations on ZOP

The above examination of the Declarations and proposals for maritime ZOP shows that transforming the legal status of large areas of the seas and oceans into ZOP is a difficult undertaking. A very important factor is the procedure required for the implementation, observation, verification, control and follow-up of the Declarations on ZOP. The views of States<sup>37</sup> expressed in relation to the creation of ZOP and NWFZs show that an instrument creating a ZOP should contain: (i) a precise geographical delimitation of the zone, (ii) the definition of the obligations of regional and non-regional States *vis-à-vis* the zone, and (iii) verification and enforcement mechanisms. Although the UN Declarations on maritime ZOP contain a definition of the zones concerned, there remain a number of ambiguities and problems concerning the practical aspects of their implementation. Therefore, it is necessary to examine some of the major problems in some depth.

Neither the ZOP Declarations themselves nor the subsequent State practice provide a satisfactory definition of the geographical limits of the ZOP concerned. The idea of maritime ZOP was conceived in 1970, before UNCLOS III began. In the early 1970s there was no consensus among States as to the breadth of the territorial sea and the recognition of the concept of the EEZ was remote. The IOZP Declaration did not define the geographical limits of the zone. It merely stated that "the Indian Ocean within limits *to be determined*, together with the air space above and the ocean floor subjacent thereto, is hereby designated for all time as a zone of peace"<sup>38</sup> (emphasis added). Two considerations seem to have influenced this provision of the Declaration. First, a wish not to prejudice the outcome of UNCLOS III and second, to allow negotiations on the exact limits of the ZOP.<sup>39</sup>

When Sri Lanka and Tanzania introduced the proposal for a ZOP in the Indian Ocean they said that they would like to have "the entire *high seas* area of the Indian Ocean" declared a ZOP (emphasis added). But certain other States argued that the Declaration should cover the entire Indian Ocean, from coast to coast, without any exceptions for territorial waters.<sup>40</sup> Malaysia and Thailand, on the other hand, stated that the proposed zone should not cover the areas within national jurisdiction of coastal States. The representative of Thailand said that "the designation of the zone of peace should be qualified by 'beyond the limits of national jurisdiction,' as was done in the case of the sea-bed."<sup>41</sup> This was also the intention of the sponsors of the proposal. The deliberations at the First Committee and the General Assembly on the IOZP indicate that States voted for the Declaration with an understanding that the Zone will include the entire Indian Ocean beyond the limits of national jurisdiction, meaning beyond the 12-mile territorial waters.<sup>42</sup>

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<sup>38</sup> Resolution 2832 (XXVI) of 16 December 1971.

<sup>39</sup> See the statement made by the Sri Lankan representative in the First Committee of the General Assembly in UN Doc. A/C.1/PV.1815, para. 38.

<sup>40</sup> For instance, see the statement made by the delegation of El Salvador, UN Doc.A/C.1/PV.1849, para. 35.

<sup>41</sup> UN Doc.A/C.1/PV.1848, para. 122.

<sup>42</sup> See the statement made by the Sri Lankan representative when introducing the draft IOZP Declaration UN Doc. A/C.1/PV 1815 (2 November 1971), p. 5.

Since UNCLOS III was to be convened in the near future, the task of the precise geographical definition of the IOZP was left for future determination because UNCLOS III was likely to make significant changes in the rules concerning the seaward limits of the coastal States. This flexible provision later led to attempts to include the entire Indian Ocean *region* comprising the territories of more than 36 littoral and 11 hinterland States of Africa, Asia and Oceania in the definition of the IOZP. This attempt made the implementation of the 1971 IOZP Declaration more complicated as it took the attention away from the zone itself to the political and security problems which exist in the coastal and hinterland States of the Indian Ocean.

Political issues ranging from the crisis in the Horn of Africa to the Iran-Iraq War, the Indo-Pakistan problem, the Soviet invasion of Afghanistan, the impact of Soviet nuclear weapons and conventional forces deployed within its borders to the south and south-east, as well as the superpower rivalry in the littoral and hinterland States of the Indian Ocean, were all considered directly relevant to the implementation of the IOZP.

The idea of the inclusion of the territories of the littoral and hinterland States in the definition of the IOZP was first espoused chiefly by certain Western States in order to re-define the scope of the IOZP Declaration, to evict the Soviets from Afghanistan (a hinterland State of the Indian Ocean) and to prevent the proliferation of nuclear weapons in the littoral and hinterland States; the latter was regarded by India as a move directed against it since it had become in 1974 the first State in the Indian Ocean region successfully to carry out the test of a nuclear device.<sup>43</sup>

The 1986 Declaration on the South Atlantic was adopted after the conclusion of UNCLOS III, but it too fails to define the exact limits of the South Atlantic ZOPC. There was no discussion as to whether or not the territorial waters and the EEZ of the coastal States of the South Atlantic should be included in the definition of the ZOPC. This was one of the reasons why certain Western Powers abstained in the vote on the Declaration. Given the 200-mile territorial sea claims of certain South American States bordering the South Atlantic,<sup>44</sup> it is difficult to ascertain the precise definition of the ZOPC of the South Atlantic; does the zone include the territorial waters of the coastal States? If not, does it cover the ocean area lying beyond an outer limit of 12-mile territorial waters or beyond 200 miles from the baselines? If the latter is the case, other States would have serious difficulties in supporting the South Atlantic ZOPC. This lack of clarity was one of the reasons given by the US for voting against the Declaration on the South Atlantic as a ZOPC.

The 1986 Declaration speaks of the South Atlantic ZOPC in the "region situated between Africa and South America." Although this Declaration does not make it clear whether the territorial waters of the coastal States are included in the zone, the terms used in the Declaration imply the inclusion of the water column of the South Atlantic together with the air space above and the ocean floor subjacent thereto in the zone beyond 12-mile territorial waters. Although in geographical terms the "South Atlantic" means the entire ocean area of the South Atlantic, coastal States have sovereign rights over 12-mile territorial waters. The same argument seems to apply with regard to the geographical delimitation of the Indian Ocean as a Zone of Peace.<sup>45</sup>

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<sup>43</sup> This may be the reason why India objected to a clause in the Final Document of the 1979 Meeting of the Littoral and Hinterland States which called upon the littoral and hinterland States of the Indian Ocean to uphold the principles of the nonproliferation of nuclear weapons.

<sup>44</sup> Among them include: Argentina, Ecuador, El Salvador, Nicaragua, Panama, Peru and Uruguay. Brazil, which used to claim 200 miles territorial sea, recently changed its position and now its territorial sea claim is 12 miles.

<sup>45</sup> That was also the intention of the sponsors of the IOZP proposal. See UN Doc. A/C/1/PV.1815 (2 November 1971), p. 5.



## The High Seas, the Peaceful Purposes Principle and ZOP

The main argument of the proponents of all proposals for ZOP is that the creation of ZOP is in accordance with the law of the sea principle of the reservation of the high seas for peaceful purposes. Article 88 of the LOSC reads: "The high seas shall be reserved for peaceful purposes."<sup>46</sup> This article is, as Booth writes, "the shortest Article in the Convention, but in spirit it is the most far-reaching: ostensibly it challenges the historic role of oceans as battlegrounds, roads to war and areas for the peacetime demonstration of military power."<sup>47</sup>

The legality of the requirement in the ZOP Declarations of the elimination of military bases and installations, the disposition of nuclear weapons and other weapons of mass destruction, the prohibition of military exercises and weapon tests seems to depend chiefly on how the term "peaceful purposes" is defined. This is because the ZOPC Declaration cites in its Preamble "the principles and norms of international law applicable to ocean space, in particular the principle of the peaceful uses of the oceans" as a legal basis for the establishment of a ZOPC in the South Atlantic.<sup>48</sup> The sponsors of the IOZP proposal also invoked this principle to support their case. Therefore, the questions to be asked in this regard are as follows: Is this principle a rule of general international law and, if so, what does it mean and does it support the concept of maritime ZOP?

The phrase "peaceful purposes" should be interpreted in a way which is not incompatible with other provisions of the LOSC, especially the freedom of navigation. Accordingly, the writer considers that this term means neither total prohibition of military activities nor the prohibition only of aggressive activities.

A legally justifiable definition of this term would ban military activities but allow peaceful navigation of warships and submarines because the freedom of navigation through the EEZ and the high seas is guaranteed for all ships, including warships, under the law of the sea and a reasonable definition of the term "peaceful purposes" would have to accommodate this fundamental principle of the law of the sea. In other words, the law of the sea principle of the use of the seas and oceans for peaceful purposes would seem to entail the following:

1. Respect for the freedom of peaceful navigation of all ships, including surface warships and submarines, and military aircraft, provided that they do not engage in activities that are inconsistent with the principles of the Charter of the UN and other rules of international law.
2. Prohibition, in the sea and ocean areas beyond the limits of national jurisdiction, of the deployment of nuclear weapons and other weapons of mass destruction, the establishment of military bases and installations, the testing of nuclear weapons and other weapons of mass destruction and the conduct of military manoeuvres which amount to the creation of "danger zones" or "military zones" in an extensive area of the high seas or are directed against a coastal State.

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<sup>46</sup> Other articles of the LOSC incorporating this principle are: 19(2), 27(1)(b), 39(1)(b), 58(2), 138, 141, 143(1), 147(2)(d), 155(2) and (3), 240(a), 242(2), 246(3), 279 and 301 of the LOSC. This principle first found expression in the 1970 "common heritage" Declaration of the General Assembly (Resolution 2749 (XXV), operative para.5), adopted by 104 votes to 0, with 14 abstentions.

<sup>47</sup> K. Booth, *Law, Force and Diplomacy at Sea* (1985), p. 82.

<sup>48</sup> Para. 6 of the preamble to the 1986 Declaration. An overwhelming majority of States Members of the UN supported the 1986 Declaration (the US was the only State which voted against it).

3. Prohibition, in such areas, of the threat or use of force or any other hostile act or threat of hostile act that are inconsistent with the principles of the UN Charter and other rules of international law.

On the basis of the foregoing, it could be said that the law on the use of the seas and oceans for military purposes is being shaped by State practice on ZOP and a customary law on ZOP is in the process of being formed by such practice inside and outside the UN. This is because customary international law is shaped by the changing patterns of State practice; the ZOP Declarations and subsequent State practice demonstrate such a pattern. The significance of the State practice on ZOP lies also in the fact that a rule of customary law which is now in progress may provide evidence of the assent of the States concerned to the modification or enlightened interpretation of previously existing rights and obligations of States and to the "nonmilitary" definition of the peaceful purposes principle rather than merely the "non-aggressive" definition.

### Conclusion

Although the creation *de jure* of ZOP has not transformed *de facto* the maritime areas concerned into "Zones of Peace" as major maritime States have in general failed to refrain from the activities that are inconsistent with the Declarations, the principles laid down in the Declarations on the IOZP and ZOPC are regarded as valid by an overwhelming majority of States;<sup>49</sup> these Declarations are regarded as proper and consistent with existing international law by most States. All General Assembly resolutions adopted after the establishment of the maritime ZOP in the regions concerned and other efforts made in this direction speak of the *implementation* of the Declarations on the zones rather than the *establishment* of such zones. The absence of consensus on the measures and methods for the implementation of these Declarations does not mean that the validity of the Declarations themselves is assailable.

It would be desirable to conclude agreements to implement the ZOP Declarations in order to achieve the optimum conditions required for such implementation, including the political understanding between the major Powers. But that does not mean that in the absence of such agreements States are completely free to engage in military activities of their choice in the ZOP. The general principles relating to the ZOP apply even in the absence of such agreements. It is not implied that the General Assembly resolutions *per se* can produce legally binding effects. What is argued is that because of the consent of States implicit in the creation of such a territorial regime designed to change the fundamental character of the maritime zone concerned, the ZOP regime could be said to have acquired validity regardless of the recommendatory character of the resolutions.

The few developed States who have opposed the UN Declarations on ZOP have tried to base their opposition on legal grounds, but, as discussed in the preceding paragraphs, their arguments are not sustainable nor have they followed a consistent policy in this matter. Imposing on third States obligations affecting matters within their territorial jurisdiction is one point (which would generally be inconsistent with international law)<sup>50</sup> but creating dispositive regimes to regulate the activities in the areas of *res communis* character by a vast majority of States in accordance with the Charter of the UN and other rules of international law in the general interest is another (which seems permissible under narrowly defined conditions).

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<sup>49</sup> For instance, the Political Declaration of the 1983 Summit Conference of the Non-Aligned Countries (the NAM consists of more than 108 countries) states that any military presence in the Zones of Peace "constitutes a flagrant violation" of the IOZP Declaration. See UN Doc.A/AC.159/L.55/Add.1.

<sup>50</sup> Cf. Article 34 of the 1969 Vienna Convention on the Law of Treaties. This article embodies the principle expressed in the maxim *pacta tertiis nec nocent nec prosunt*.

# ZONES OF PEACE: TOWARDS INSTITUTIONALIZING A REGIME OF PEACE ON THE SEAS

*Ramon Lopez-Reyes*

## Introduction

Beginning in the mid-1960s, the Non-Aligned Movement initiated a campaign to declare the Indian Ocean a zone of peace.<sup>1</sup> During this period, the Soviets and the United States exchanged communications on how to “fix the maximum permissible breadth of the territorial sea.” At the same time, Dr. Arvid Pardo, Malta’s Ambassador to the United Nations, urged the world community to consider the open seas a common heritage of mankind.<sup>2</sup>

When the deliberations of the Third United Nations Conference on the Law of the Sea (UNCLOS III) commenced in 1973, three ocean regimes competed with each other: “Mare Liberum” or Open Seas, “Mare Clausum” or Closed Seas, and “Mare Nostrum” or Regional Sea Commons. The Non-Aligned Movement promoted the “Mare Clausum” regime to restrict the naval use of the seas. The naval powers advanced the “Mare Liberum” regime, to arrest the imperative of a creeping jurisdiction and to retain naval mobility on the high seas. The globalists championed a “Mare Nostrum” regime, applicable to the world ocean, to enable a sharing of the oceans resources. (A fourth force, mostly technology driven, joined with the other three forces to further the exploration and exploitation of the seas.)

The United Nations Convention on the Law of the Sea was finalized in 1982 and all three ocean regimes claimed victory. The extension of territorial waters to 12 miles and the establishment of exclusive economic zones (EEZ) that extended 200 miles from the coast were perceived to represent a victory for the adherents of a “Mare Clausum” regime. From the perception of the naval powers, the Convention assured naval mobility on the high seas. United States naval officials reported that “the process has resulted in a rather clear victory for the proponents of naval mobility,” or “Mare Liberum.” The “Mare Nostrum” regime perceived victory because the resources on the seabed and its subsoil located under international waters would be considered the common heritage of mankind.

The Convention introduced a remarkable principle in Article 88: the reservation of the high seas for peaceful purposes.<sup>3</sup> Notwithstanding the perception that the new Law of the Sea Convention represented a victory for free mobility, the peaceful use of the sea principle, together with the principle of the common heritage of mankind (Art. 136), signalled the demise of the Grotius or “Mare Liberum” regime of unrestricted

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<sup>1</sup> See Barry Buzan, “Naval Power, the Law of the Sea, and the Indian Ocean as a Zone of Peace,” in *Marine Policy*, Vol.5, No. 3, July 1981, pp. 194-204.

<sup>2</sup> Jean-Pierre Queneudec, “The Peaceful Use of the International Maritime Areas,” in *The New Law of the Sea*, C. Rozakis and C. Stephanou, eds., Amsterdam: North Holland, 1983, p. 187.

<sup>3</sup> See “United Nations Convention on the Law of the Sea,” in Bo Johnson Theutenberg, *Evolution of the Law of the Sea*, Dublin: Tycooly International Publishing Ltd., 1984.

freedom of the open sea.<sup>4</sup> These two principles gave notice that a new ocean regime, based on a peaceful sharing of the sea commons was in the making.<sup>5</sup>

This chapter examines how the zone of peace practice can be utilized as an instrumentality through which peace can be sustained on the seas. The chapter also explores the question posed by Ken Booth: Is the outcome of UNCLOS III a “historic compromise or a paradigm shift”? The chapter inquires whether a zone of peace practice can serve as the framework through which the paradigmatic shift manifests itself. It also explores the challenge presented by Elisabeth Mann Borgese, that the reservation of the seas for peaceful purposes “needs to be interpreted and developed in legal and institutional terms.”<sup>6</sup>

### **Zone of Peace Concept and Practice**

The contemporary roots of the zone of peace concept are found in Nehru's idea of an “area of peace.” Conceptually, an area of peace would keep the newly independent States free from the conflicts of the great powers. Nehru's proposal was, in reality, a modification of Gandhi's idea of “village republics” living in peace with each other.<sup>7</sup> The Non-Aligned Movement, that Nehru helped launch, converted “area of peace” into a political zone of peace. As early as 1964, Sri Lanka “raised the proposal in effect of declaring the Indian Ocean as a peace zone” at the Cairo Non-Aligned Conference.<sup>8</sup> The call for an Indian Ocean Zone of Peace again surfaced at the 1970 Non-Aligned Conference at Lusaka.<sup>9</sup> Finally, in December 1971, the United Nations declared the Indian Ocean a Zone of Peace. The General Assembly also declared the South Atlantic Ocean a zone of peace in 1986.<sup>10</sup>

The Non-Aligned Movement linked a zone of peace practice with that of disarmament, but a disarmament directed at the Superpowers and not at zonal States. The General Assembly, in its Final Report of the First Special Meeting on Disarmament (1978), also linked zones of peace with disarmament and included in its Program of Action the creation of zones of peace.<sup>11</sup>

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<sup>4</sup> Hugo Grotius, *The Freedom of the Seas or the Right which belongs to the Dutch to Take Part in the East Indies Trade*, James Brown Scott & Ralph van Daman Magoffin transl., London: Oxford University Press, 1916.

<sup>5</sup> Philip Allott, “Mare Nostrum: A New International Law of the Sea,” in *Freedom of the Seas in the 21st Century*, J. Van Dyke, D. Zaelke, and G. Hewison, eds., Washington, D.C.: Island Press, 1993, pp. 49-71.

<sup>6</sup> Elisabeth Mann Borgese, “The Process of Creating an International Ocean Regime,” in J. van Dyke, D. Zaelke, and G. Hewison, eds., op cit., p. 33.

<sup>7</sup> A. Ramamurti, “Trusteeship in Agriculture,” in *Trusteeship: A Gandhian Alternative*, J.D. Sethi, ed., New Delhi: Gandhi Peace Foundation, 1986, p. 142.

<sup>8</sup> R.V. Narasimha Rao, “Comments of Minister of External Affairs India,” in *Seminar on Indian Ocean as a Zone of Peace*, New Delhi: India International Centre, 1981, p. 6.

<sup>9</sup> Hugo Palma, *Seguridad, Desarme y Cooperacion Internacional*, Lima: Ignacio Prado Pastor, 1992, pp. 64-6.

<sup>10</sup> See Elise Boulding, “The Zone of Peace Concept in Current Practice: Review and Evaluation,” in *Prospects for Peace: Changes in the Indian Ocean Region*, Robert H. Bruce, ed., Perth, Australia: Indian Ocean Center for Peace Studies, 1992, pp. 75-106.

<sup>11</sup> United Nations Document, Final Report of the General Assembly's First Special Meeting on Disarmament, 1978, para. 60-64.

The IOZP Resolution did not provide for the establishment of nuclear-weapons-free zone. Two Nuclear Weapons Free Zones (NWFZ), however, have been negotiated by regional parties: the 1967 Latin American Treaty of Tlatelolco, and the 1985 South Pacific Nuclear Free Treaty (Treaty of Raratonga).<sup>12</sup> In contrast to the NWFZ, a zone of peace is intended to be more inclusive. A zone of peace infers total disarmament or, at most, the use of arms for non-nuclear self-defence.<sup>13</sup> The IOZP and the South Atlantic ZP together with the Latin American and South Pacific NWFZs aim to demilitarize, if not denuclearize, the sea. As a measure of disarmament, zones of peace and NWFZs fall under Article VII of the Non-Proliferation Treaty that recognizes “the rights of any group of States to conclude regional treaties in order to assure absence of nuclear weapons in their respective territories.”<sup>14</sup>

Nepal, a landlocked nation, has had for numerous years a policy to have its territory accepted as a zone of peace. Basically, Nepal has sought to escape from being caught up in the regional conflict between India and China. The Nepalese proposal is based on the tenets of the Non-Aligned Movement:

- prohibition of the use or threat of force;
- peaceful settlement of disputes;
- non-intervention in the affairs of another state;
- prohibition of activities hostile to Nepal; and
- peaceful co-existence.<sup>15</sup>

The government of Nepal in 1980 strengthened its commitment to a zone of peace practice when it inserted in its Constitution that the creation of a zone of peace would be the main feature of Nepal’s foreign policy.<sup>16</sup>

The Nepalese as well as the Indian Ocean, South Atlantic, and Southeast Asia zone of peace practices represents a “bottom-up” political strategy of lesser States against the Great Powers.<sup>17</sup> At the same time, there is growing consensus that a zone of peace practice should have an internal component. In other words, zonal States should be concerned with the manner in which governments, the “top,” treat their respective internal populations, the “bottom.”

The alarming conditions that erupted in the Indian Ocean after the 1971 Indian Ocean Zone of Peace declaration, indicated that the Indian Ocean Zone of Peace practice would remain rhetorical rather than viable.<sup>18</sup> As currently practised, the IOZP was declared by some to be “incompatible” with the emergent law of the sea.

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<sup>12</sup> David Fischer, *Toward 1995: The Prospects for Ending the Proliferation of Nuclear Weapons*, Geneva: United Nations Institute for Disarmament Research, 1993, pp. 271-82.

<sup>13</sup> Joshua Handler, “Denuclearizing and Demilitarizing the Seas,” in *Freedom of the Seas in the 21st Century*, op.cit., pp.420-34.

<sup>14</sup> Fischer, op.cit., p.171.

<sup>15</sup> Y.R. Sangroula, *Zone of Peace: an Emerging Theme of International Law*, Kathmandu: Prarthana Printing Press, 1989, pp. 58-62.

<sup>16</sup> S. K. Gurung, Y. Sangroula and P. Adhikari, *A Study of Legal Framework of the Peace Zone Proposal of Nepal*, Kathmandu: Centre for Economic Development and Administration, Tribhuvan University, 1987, p. 81.

<sup>17</sup> Ramon Lopez-Reyes, “The Zone of Peace: Concept and Practice,” in *International Peace Research Newsletter*, Vol 22, No. 1, 1984, pp. 2-6.

<sup>18</sup> Buzan, op. cit., p. 200.

The mid-1990s, however, indicate a different era than the early 1970s when the Indian Ocean was declared a zone of peace and the early 1980s when the new law of the sea was finalized. This change of circumstances caused Barry Buzan to write:

In a sense, a zone of peace is visionary; it reflects a rise in global consciousness, and invokes the image of universal "humanhood." The globalist goal is not "Mare Nostrum," but "Mundus Noster." A global zone of peace is likely to evolve incrementally, that is, a gradual merging of zones that give form to a world-wide zone of peace.

Even without this grandiose vision, David Fisher was able to perceive this emerging dynamic. He wrote:

There is thus the prospect that before the end of this century almost all the Southern Hemisphere could form a nuclear-weapons-free zone that would stretch from the coast of Western Australia across that continent, over the South Atlantic, across Africa and over the Indian Ocean to the island Mauritius.<sup>19</sup>

If our zone of peace and NWFZ proposals are added to the Southern Hemisphere zone, for example, South East Asia and Baltic Zones of Peace, and South Asia and Central Europe NWFZs, then the trace of a global zone of peace emerges. When Nepal inserted in its Constitution that "the objective of the foreign policy of the Panchayat System shall be to endeavour to make Nepal a zone of peace by adhering to the basic values of the United Nations and the principle of Non-Alignment,"<sup>20</sup> and when the United Nations General Assembly declared the Indian and South Atlantic oceans zones of peace, the institutionalization of a zone of peace practice commenced as did the march toward a global zone of peace.

Notwithstanding its political goals, the Non-Aligned Movement never developed an apolitical instrumentality to assist in converting the idea of zone of peace into theory, in converting the theory into policy, in converting a policy of zone of peace into a practice, and in refining the practice into an institutionalized practice. Moreover, the United Nations Ad Hoc Committee on the Indian Ocean (AHCIO), organized in 1972<sup>21</sup> to study the implications of the Declaration on the establishment of the Indian Ocean as a Zone of Peace and the practical measures necessary to implement such a proposal, did not escape the political machinations that plagued the Declaration itself and, accordingly, never fashioned an objective mechanism to advance the zone of peace concept, theory, policy and practice.

The International Center for the Study and Promotion of Zones of Peace in the World formed in El Salvador in 1995, under the auspices of the Superior Council of Central American Universities, illustrates the type of non-political agency that the Non-Aligned Movement failed to develop. Without an agency dedicated to unbiased research and development, the zone of peace practice will not escape from the rhetoric of the Non-Aligned Movement. The Zone of Peace Center, if it remains free of political intrigue, may be able to promote an authentic zone of peace practice throughout the world and assist directly in the institutionalization of that practice.

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<sup>19</sup> Fischer, *op. cit.*, p. 180.

<sup>20</sup> Sangroula, *op. cit.*, p. 47.

<sup>21</sup> *Ibid.*, p. 42.

## The Law of the Sea and Zones of Peace

During the 1960s, humanity witnessed a most exciting chapter of its history, namely, the decolonialization of the globe. The Non-Aligned Movement played a critical role in this process of decolonization. It also “freed” the United Nations, during this period, from the grips of the Security Council and subsequently used the General Assembly to “legislate” decolonialization.

For nations that were former colonies, the open seas represented the routes of invasion. The colonial powers had to be stopped from utilizing the seas for the purpose of safe-guarding their remaining colonies and from practising new forms of “overseas” colonization. When the Non-Aligned Movement began to promote a zone of peace practice, it was not surprising that it initially proposed an oceanic practice aimed at restricting the free navigation of the naval powers.

During the high season of colonization, the seas were used to conquer the peoples of America, Africa, Asia and the Pacific. The theory of open seas was advanced by Victor Grotius in his work “*Mare Liberum*,” (Freedom of the Seas), in 1609, a period when Europe was embarking on the colonization of the world. The Grotius regime set the juridical argument that the high seas were “free.” The notion of free, however, turned out to mean free to exploit the overseas.

If the Grotius regime of the freedom of the seas served Western Civilization well, it did poorly for the colonized peoples of the world. The period of decolonialization, therefore, seemed the appropriate moment to overthrow the Grotius regime and introduce a “*Mare Clausum*” regime.

In the Indian Ocean Zone of Peace Declaration, the Superpowers were directed not to threaten the sovereignty and territorial integrity of littoral States. They were also called upon to eliminate from the Indian Ocean their military bases and nuclear weapons. In short, the Indian Ocean would no longer be an “open sea.” In this regard, the IOZP suggests an attempt to regulate the high seas for peaceful purposes, similar to the successful 1971 Seabed Treaty that eliminated nuclear weapons and other weapons of mass destruction from the sea-bed. The day of the Grotius regime in the Indian Ocean seemed over.

Although the inclusion of a zone of peace component was debated during UNCLOS III,<sup>22</sup> it was not instituted. The variety of tensions in the Indian Ocean during this period may have been responsible for the eventual discarding of the zone of peace idea. For example, when the IOZP Declaration was finally announced in December 1971, India and Pakistan were at war and the United States and Soviet Union had deployed naval ships in the Northern Indian Ocean in response to the armed conflict. Moreover, the Israel-Arab war of 1973, India’s nuclear explosion in 1974, the Iraqi-Iranian war during the 1980s, and the Soviet Union’s “invasion” of Afghanistan in 1979 and subsequent armed campaigns in the 1980s kept the Indian Ocean in the throes of regional tensions.

Rather than focus on the efforts to overthrow the “*Mare Liberum*” regime, is there any compromise that would enable the Grotius regime to give way to or join with the “peaceful use” of the seas principle and zone of peace practice? Barry Buzan lists two conditions that evolved from the debates of the AHCIIO and, if in place, could cause naval powers to support a zone of peace practice:

- (1) outside States must be excluded from pursuing their rivalries within the zone of peace; and
- (2) the States within the area must establish harmonious and very largely force-free relations among themselves.<sup>23</sup>

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<sup>22</sup> Oxman, *op. cit.*, p. 861.

<sup>23</sup> Buzan, *op. cit.*, p. 198.

The first condition is based on a premise that naval powers can be convinced to withdraw from a particular area. The second condition implies that naval powers may accept restrictions on naval navigation if they support peace within the zone of peace. This analysis is based on the premise that naval powers also have an interest in maintaining peace. If indeed the older imperial utilization of the seas has ceased and no new superpower rivalry erupts on the international scene, and if littoral States of a specific sea maintain peaceful relations with each other, then the “peaceful use” and “free navigation” principles will not clash.

If the Indian Ocean is not yet suitable for a zone of peace practice, would the South Atlantic, or Caribbean Sea or Baltic Sea be any more suitable? If nations bordering the South Atlantic established force-free peaceful relations, would there be a willingness on the part of naval powers to respect contractually the provisions of the South Atlantic Zone of Peace? Elisabeth Mann Borgese found merit in zones of peace and recommended their establishment in the Arctic Ocean and in the Mediterranean Sea in order to create a framework where the implementation of a comprehensive security system could interact with its environmental, developmental and disarmament dimensions. She concluded:

Let us declare these regional seas to be zones of peace. In both cases, institutional implementations of the concept of comprehensive security would strengthen world peace, enhance global economic development and contribute to the conservation of the human environment. To make the Mediterranean a zone of peace could be part of, and would strengthen, an over-all Middle East peace settlement.<sup>24</sup>

Notwithstanding the limitations placed on the mobility of naval ships during peace-time, a zone of peace practice implements Article 88 of the Convention which stipulates that “the high seas shall be reserved for peaceful purposes.” As such, naval powers may be induced to support the incorporation of a zone of peace practice into the law of the sea.

### **Emerging Zone of Peace Principles**

Initially, the advocates of the IOZP did not propose a NWFZ. This recommendation came during the 1979 Meeting of the AHCIO when it listed six characteristics to include in the “denuclearization of the ocean”:

1. Limits of the IOZP;
2. Eliminating the military presence of the great powers in the ocean conceived in the context of great power rivalry;
3. Denuclearization of the ocean;
4. Non-use of force and peaceful settlement of disputes;
5. Strengthening international security through implementation of the IOZP declaration; and
6. Free and unimpeded use of the Indian Ocean by vessels of all nations in accordance with the norms and principles of international law and custom.<sup>25</sup>

India’s opposition to the third or denuclearization principle revealed the tenuousness of the IOZP.<sup>26</sup> Such opposition and the failure to obligate littoral States to restrict their respective naval forces did little for

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<sup>24</sup> Borgese, op. cit., p. 36.

<sup>25</sup> Sangroula, op. cit., pp. 42-3.

<sup>26</sup> Buzan, op. cit., p. 196.



confidence-building relative to a zone of peace practice. Were the littoral states acting in good faith or was the IOZP Declaration a device to “gang up” on the Superpowers?

Nine members of the AHCIO, to include the United States, introduced additional principles during the 1983 meeting of the Committee. The United States called for the “withdrawal of foreign occupying forces from States of the region.” This was directed at the Soviets who had entered Afghanistan in 1979. The crisis in Afghanistan could not be presented simply as superpower rivalry in the Indian Ocean. Rather, the “invasion” provoked fear of a Russian breakthrough to the sea. The crisis had a continental rather than a maritime root.

Prior to 1983, no zone of peace principle was proposed that alluded to State responsibility towards the peoples who resided within the littoral States. The 1983 Meeting proposed two remarkable principles in regards to State responsibility:

1. ensuring equal rights and self-determination of peoples, and
2. promotion of and respect for human rights.<sup>27</sup>

The introduction of principles that addressed how a government treated its own people signalled a marked turn in zone of peace conceptualization. Gamini Keerawella noted in 1992 the linkage between human rights and a zone of peace practice:

Many states in the Indian Ocean region have very dismal records of human rights violations ... The chain reaction of state violence and the anti-state violence of dissident groups often drags on at the expense, and to the detriment of basic human rights of “unarmed” individuals ... It is a fact that any scheme of security and peace that does not guarantee the basic human rights of individuals in civil society is not really meaningful.<sup>28</sup>

The introduction of internal issues in a zone of peace practice was something revolutionary and revealed a growing understanding that peace flowed from something more than removing superpower forces from a region. By comparison, the zone of peace principles advanced by the Non-Aligned Movement did not acknowledge that peace flowed equally from the actions of the littoral and external States.<sup>29</sup> The sea itself is peaceful, it is governments that are not. A comprehensive zone of peace practice, therefore, includes external peace among States, and internal peace between government and peoples, and among peoples.

Fabio Castillo, in his 1990 study on a Central American-Caribbean Zone of Peace, advanced the idea of “Democratic Security.” Democratic Security means a peace practice based on a social justice that covers all people within the zone and not solely an elite population.<sup>30</sup> Castillo linked “Democratic Security” with human rights. The absence of “Democratic Security,” that is, the lack of social justice and respect for human

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<sup>27</sup> Ibid., pp. 43-44.

<sup>28</sup> Gamini Keerawella, “Patterns of Conflict in the Indian Ocean Region and the Peace Zone Concept,” in *Prospects for Peace: Changes in the Indian Ocean Region*, op.cit., pp. 112-13.

<sup>29</sup> In 1978, Headly Bull outlined zone of peace principles. Besides including principles traditionally advanced by the Non-Aligned Movement, he also listed principles directed at littoral States: “creation of a sound and congenial environment of economic development...and...restriction on production, using, manufacturing, and deployment of nuclear weapons, or weapons of mass destruction either by the outside powers or the area or country to be created as a zone of peace.” Reported in Sangroula, op. cit., pp. 35-6.

<sup>30</sup> Fabio Castillo y Oriel Soto, *Declaracion de Zona de Paz y Cooperacion en Centroamerica y el Caribe*, Heredia, Costa Rica: Universidad Nacional, 1990, p. 109.

rights in a society, ignites civil conflict and precludes an authentic zone of peace practice. The ideology of democratic security has emerged from the increased emphasis on human rights throughout the world. The meaning of security is shifting from a military security based on territory and sovereignty to a security of the individual, population and environment, and from a security directed against threats to a preventive security.

According to the present author, “maintaining a continuing and open process to promote internal social justice and human rights” is a primary zone of peace principle. He explained that “a zone of peace state is one that practices, internally, social justice and human rights and, internationally, nonviolent politics.” In this sense, a comprehensive zone of peace operates at two levels: international and local. The principle of respect for human rights is central to a local zone of peace practice. Internationally, the principle of nonviolent resolution of conflict plays the central role in a zone of peace practice.

In view of these developments it may be stated that a zone of peace must have at least the following characteristics:

1. Politics of cooperation not conflict.
2. Nonviolent conflict resolution.
3. Policy of disarmament to include nuclear-weapons-free zone.
4. Removal of non-zonal armed forces from the zone.
5. Promotion of democratic security (security based on human rights and social justice).

The failure of the IOZP can be traced to a one-sided approach that focused solely on the naval actions of external States. The inclusion in a zone of peace practice of principles that place responsibility on littoral states, particularly in regards to the peaceful governance of domestic populations, underscores the linkage between the sea and land. A peaceful regime on the lands is likely to pursue a peaceful use of the seas. In brief, the linking of peace on land with peace on the sea may indeed free the zone of peace practice from the narrow politics of littoral States and encourage them to demand of themselves what they demand of external powers.

The new law of the sea reveals an attempt to transform the traditional culture of war manifested in the Grotius regime into a culture of peace. It can be anticipated, therefore, that the “peaceful use” and “common heritage” principles of the new law of the sea, if joined to the emerging zone of peace principles, will supplant the older culture of war mentality, which much too often converts the seas into invasions routes.

### **Security Considerations**

There was no intent during UNCLOS III to link the law of the sea with arms control. In this regard, the United States Delegate to the Conference commented that “any specific limitation on military activities would require the negotiation of detailed arms control agreement. The Conference was not charged with such a purpose and was not prepared for such negotiations.”<sup>31</sup>

But even if the “peaceful purpose” clause did not originally imply any measure of arms control, “the idea of an informal arms control regime based on a ‘mare clausum’ is not now unthinkable.” Booth observed that the creation of a “mare clausum” in about one-third of ocean space makes the Law of the Sea Convention into an instrument for “a kind of de facto arms control, not specifically intended or designated as such.”<sup>32</sup>

The end of the Cold War has not diminished the need for general disarmament. In fact, an urgency now exists in the developing world to agree on arms control. Danfalani Ahmed observed that unless serious efforts

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<sup>31</sup> Francesco Francioni, “Peacetime Use of Force, Military Activities, and the New Law of the Sea” in *Cornell International Law Journal*, Vol. 18, No. 2, Summer 1985, p. 222.

<sup>32</sup> *Ibid.*, p. 90.

are made to ensure arms control under the auspices of the United Nations, "it is quite likely that regional imperialism and hegemonic ambition of different local and/or international powers might continue." The end of the Cold War creates an opportunity for the major powers, particularly the United States, to view zones of peace and NWFZs as useful instruments of foreign policy. The Cold War incited an arms race that proved costly to the over-all health of the United States and Soviet economies. In terms of budgetary constraints, zones of peace and NWFZs make sense as measures of disarmament. If for no other reason, budgetary constraints, in the end, may cause the United States to incorporate them in its global security strategy.

Policies do change and it was not surprising, therefore, that the United States, after resuming formal relations with the Government of Vietnam and after closing its military bases in the Philippines, removed its opposition to the establishment of a Southeast Asia Nuclear Weapons Free Zone.<sup>33</sup> Also, after a period of denouncing the restrictions to free navigation posed by the South Pacific Nuclear Free Zone Treaty, the United States changed its policy in 1995 and announced its intention to be a signatory to the Treaty.<sup>34</sup>

While disarmament practices represent appropriate intermediary steps to move from a war making to a peacemaking mentality, it needs to be stressed that a zone of peace practice is something more than a measure of disarmament. To link the zone of peace practice solely to disarmament is to keep it tethered to the Grotius regime. Since the Grotius regime facilitated acts of aggression, there always existed pressure to contain abusive sea power. Consider the Washington and London Naval Treaties<sup>35</sup> of the 1920s that limited naval capability. These accords failed because disarmament flowed from a war making international structure, and because they addressed the symptom and not the cause. In contrast, zones of peace, as measures of the peaceful use of the sea, serve peacemaking.

It can be expected that naval powers will brook no restrictions of navigation on the high seas in the Northern Hemisphere, at least, into the near future. For naval powers to entertain a zone of peace in the Northern Hemisphere, it will be necessary for a zone of peace practice first to prove itself in the Southern Hemisphere. In this regard, a nation's armed forces play a leading role in defining security goals, setting armament policies, and in designating areas of strategic importance. The military, institutionally, is committed to the employment of violence to achieve peace and therefore, tends to discard as "soft" those peace stratagems based on nonviolent means. If military institutions oppose it, governments will find it difficult to establish disarmament policy, and to participate in peace actions such as NWFZs and zones of peace.

It should be stated clearly, however, that the armed forces, at least in Western States, are not totally closed to nonviolent peacemaking or are not solely engaged in violent actions. Navies, for example, protect international trade. Dissatisfaction with the Grotius regime did not surface because navies defended the seaways to protect merchant shipping, but because the navies utilized the seaways for invasion.

The end of the use of navies to further territorial colonialism and the emergence of a spirit of globalism, as noted in the new Law of the Sea, signal the beginning of the end of the existing inter-state system. The existing system of sovereign States is threatened and in its place, regional security systems are evolving within an unstructured global security system.

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<sup>33</sup> *The Economist*, "South-East Asia's Sweet Tooth," 5 August 1995, p. 31.

<sup>34</sup> *Honolulu Star-Bulletin*, "A nuke-free S. Pacific?" 19 October 1995, p. A1.

<sup>35</sup> See Richard Fanning, *Peace and Disarmament: Naval Rivalry & Arms Control 1922-1933*, Lexington, Kentucky: The University of Kentucky Press, 1995.

Boleslaw Boczek has expressed the opinion that regional agreements can limit the military use of the sea.<sup>36</sup> A regional or zonal common security arrangement, in the absence of a global common security arrangement and in contrast to collective security systems tied to the great powers, may fit the self-defence needs of States that are signatories to a zone of peace treaty. While the Organization of American States can meet the common security needs of a Central American Zone of Peace, zonal States can also organize a common security arrangement apart from the OAS. Rather than maintain a separate military force in each country, the Central American Zone of Peace Treaty might stipulate the establishment of a common self-defence system based on a composite zonal force. But to be truly "self-defensive," regional zone of peace defence forces must be free of linkage with external armed forces.

The collective security arrangements of the inter-state system has demonstrated its effectiveness to a certain degree. A zone of peace practice has still to prove how it provides security. At the same time, the so-called security achieved by the inter-state system more often than not, implodes. Society, therefore, is still open to security arrangements that can forge a sustainable peace.

Because there is always the likelihood that States within a zone of peace will need assistance for self-defence,<sup>37</sup> it is critical that a zone of peace treaty guarantee zonal States the right to invite external forces into a zone of peace. The new Law of the Sea does not ban military actions related to self-defence. But once the terms for self-defence are agreed upon, a naval power could not deploy its naval ships in a zone of peace without "prior approval." The projection of naval power, in the absence of an invitation, is apt to be considered an act of neo-colonialism. The law "imposes an obligation to perform activities, including those of a military nature, in a way so as not to threaten the peace and security of states."<sup>38</sup>

It can be expected that abuse will arise regarding the nature of the "invitation." Therefore, it will be necessary to maintain a distinction between genuine self-defence as specified in Article 51 of the United Nations Charter and a self-defence invitation that is caught up in aggression. The difficulty to define peaceful use of the sea, as well as acts of legitimate self-defence caused one author to state that the peaceful use of the sea principle "can only be regarded as a resounding platitude, of no practical relevance."<sup>39</sup>

Lesser States will question the integrity of naval powers largely because their experience indicates that the latter customarily use the seas to advance their power and influence.<sup>40</sup> The Third World still shudders from Sir Walter Raleigh's words given over 450 years ago: "Whoever commands the sea commands the trade;

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<sup>36</sup> Boleslaw Boczek, "The Peaceful Purposes Reservation of the UN Convention on the Law of the Sea," in *Ocean Yearbook*, Vol. 8, E. Borgese, N. Ginsburg and J. Morgan, Eds., Chicago: University of Chicago Press, 1989, p. 360.

<sup>37</sup> The new ocean regime has introduced an added dimension to self-defence. Coastal States and insular States, in particular, have to defend the vast expanse of their respective EEZs. Under the new regime, defence is no longer directed to repulse external arms but now includes a nonmilitary defence against smuggling, marine pollution, waste dumping, and illegal fishing and marine exploitation. Insular States, for example in a South Pacific Zone of Peace, might have to call upon maritime powers to assist in the defence against smuggling, dumping, pollution, and illegal exploitation of resources in the EEZs. The United Nations not only affirms the right of self-defence (see United Nations Charter, Article 51), it also declares that, "All Members shall refrain...from the threat or use of force against the territorial integrity or political independence of any state..." (See United Nations Charter, Article 2(4).)

<sup>38</sup> V.F. Tsarev, "Peaceful Uses of the Seas: Principles and Complexities," *Marine Policy*, Vol. 12, No. 2, April 1988, p. 156.

<sup>39</sup> Booth, *op. cit.*, p. 83.

<sup>40</sup> Peter Kornbluh, *The Price of Intervention*, Washington, D.C.: Institute for Policy Study, 1987, p. 52.

whoever commands the trade of the world commands the riches of the world, and consequently the world itself.”<sup>41</sup>

How can naval powers be trusted when they call their nuclear and ballistic tests in the Pacific Ocean peaceful, simply, by claiming that they are intended to prepare for self-defence, keep the peace, and maintain national security?<sup>42</sup> States declare for themselves what actions are considered self-defence. In general, they do not readily submit their behaviour to the judgement of other parties, but demand to be arbiters of their interests and persist in calling their policies peaceful.

At the same time, “it is possible that those in the future who would use warships for coercive purposes may have to face the prospect of being criticized for not acting in accord with the spirit of the Convention.” Naval powers, to avoid reproach, may no longer choose to exhibit a blatant if not ruthless pursuit of national interests, but instead may commit themselves more to a legitimate self-defence.<sup>43</sup>

### Paradigm Shift

The existence of certain conditions may induce great powers to endorse a zone of peace practice. These conditions include:

- the zone of peace should be located in an area not considered of major strategic significance to the great powers,
- the zone of peace should be presented as part of an inclusive comprehensive disarmament plan,
- the establishment of the zone of peace should enhance regional security and/or the naval power’s national security,
- the zone of peace practice should directly or indirectly lessen national security expenditures, and

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<sup>41</sup> As quoted in Joseph R. Morgan, “Porpoises Among the Whales: Small Navies in Asia and the Pacific,” Honolulu: East-West Center Special Report, No 2, 1994, p. 6.

<sup>42</sup> Jon Van Dyke, “Military Exclusion and Warning Zones,” in *Freedom of the Seas in the 21st Century*, op.cit., p. 452.

<sup>43</sup> Within the United States there is strong interest to have its navy fully engaged throughout the globe. Joseph Morgan concluded that “[t]he United States should strengthen the web of security arrangements created by its cooperative engagement policy.” He based his recommendation on the premise that “countries in Asia and the Pacific depend on the presence of U.S. naval forces to maintain regional stability.” (See Morgan, “Porpoises;” op. cit., p. 44.) The United States’ “victory” over the Soviet Union affirms this premise that the presence of U.S. Forces brings stability and ultimate victory. Consequently, little attention is given to how the presence of United States naval forces destabilizes a region. If the presence of United States naval forces promotes regional stability among its allies in Asia, they act quite differently on China. In fact, China’s response to United States bilateral naval exercises with its allies is to enlarge its own navy. This it has been doing. While China has basically deployed a defensive navy, “future Chinese fleet development will probably emphasize offensive forces.” (See Morgan, “Porpoises;” op. cit., p. 34.) Other regional States, to include Japan, may follow suit and also increase their offensive naval capability. In short, the entire region may embark on a naval arms race. The creeping maritime territorial imperative, suggested in a zone of peace, at bottom, serves both as a “de facto” practice of arms control and as a check on a naval arms race.

- the zone of peace should include provision for the invitation of external forces to transit the zone and engage in self-defence actions.

Needless to say, the presence of all five conditions increases the likelihood that naval powers will endorse a zone of peace practice. But it is not essential that all five conditions exist at the same time. Outside of these conditions, a zone of peace practice may also evolve because the practice synchronistically fits in with a paradigm shift that the new law of the sea set in motion.

Ken Booth noted this shift. He contends that the main feature of the shift is a change in the international community's attitudes toward peacetime naval developments off foreign shores. These will be seen as illegitimate as the result of a combination of political, economic and legal considerations.<sup>44</sup> The vulnerability of the relatively weak nations to military pressure "could lead them to try to place limitations on naval mobility by practice or by negotiation." A zone of peace practice, as the manifestation of the will of weaker states, attempts to restrain the freedom of action of the most powerful. A naval power, because it deploys its forces according to its national interests, generally dismisses how such deployment impacts on other states. A zone of peace practice attempts to lessen the intimidating aspects of naval power.

Booth observed that increasingly "prior approval" would be required for innocent passage through Exclusive Economic Zones. For example, Brazil, in approving the new Law of the Sea, gave notice that "prior approval" would be required for naval ships to conduct manoeuvres in its EEZ.<sup>45</sup> This progressive limitation on peacetime naval deployment marks the paradigmatic shift. Although such a shift today may seem far-fetched, only a century ago a paradigm shift regarding attitudes to colonies would have been also considered far-fetched. Booth concludes

Finally, there might be a concerted effort to operationalise the meaning of the phrase "exclusively for peaceful purposes" in such a way as to delegitimise the movement of foreign warships beyond their own coastal seas. This would mean defining "peaceful" in terms of "non-military" or "non-armed" rather than "non-aggressive" .... In many situations permanent forward naval deployments would be a thing of the past, and naval mobility would be restricted.<sup>46</sup>

It does not take a major effort of imagination to discern that Booth's commentary on the thrust of the paradigm shift points to a zone of peace practice. A zone of peace is the par-excellence example of delegating an area exclusively for peaceful purposes.

Tzarev noted this linkage between zones of peace and the paradigm shift of restricting peacetime naval deployment:

the notion "zone of peace" presupposes the liquidation of naval bases, obligatory limitations and reduction of the activities of navies of all states.

He added,

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<sup>44</sup> Booth, *op. cit.*, p. 90.

<sup>45</sup> Palma, *op. cit.*, p. 31.

<sup>46</sup> Booth, *loc. cit.*, p. 92.

the limitation of naval activities of states on the high seas may be played by the practical realization of the idea of declaring the Indian Ocean a zone of peace *on the basis of an international agreement* with the participation of all interested states.<sup>47</sup> (emphasis added)

United Nations General Assembly resolutions establishing zones of peace do not carry binding obligations for member States. What is required, therefore, is "to move the resolution to be ratified by the parliament, or constitutional authority, as the case may be, of the respective nations in accordance with their constitutional provisions. Approval of the resolution may also be carried out by means of multilateral convention of concerned states convened in this regard."<sup>48</sup>

To remove the zone of peace practice from its current plight, it will be necessary to replace rhetoric-making with treaty-making mechanisms that become part of international law. In this regard, the recently organized International Center for the Study and Promotion of Zones of Peace in the World (ZOP Center) in El Salvador provides an apolitical instrumentality to progress from declaration-making to treaty-making.<sup>49</sup>

Even if the zone of peace practice were not to advance much further in the near future than its present status of political rhetoric, it nonetheless forces the international community to discuss peace initiatives introduced by lesser States. Establishing zones of peace even by declarations of the General Assembly compels this discussion. In the end, such dialogue may lead to the preparation of zone of peace contractual arrangements and subsequently, to their ratification.

## Conclusion

This chapter has examined several characteristics that may enable naval states to participate in a zone of peace accord. A change in the conceptualization of a zone of peace practice was noted. In particular, zonal States are being held accountable to participate in disarmament. Such developments enable a zone of peace practice to express in a very comprehensive manner the new law of the sea principle that the seas are reserved exclusively for peaceful purposes. A zone of peace on the high seas, when tied to the seabed zone of peace, comprises the entire ocean space, from the subsoil of the seabed to the surface of the high seas. A zone of peace is a practice, in short, of disarmament along that entire space.

Zonal States are also to safeguard the human rights of their respective peoples. If zonal States were to carry out these new obligations in good faith, naval powers might be disposed to enter into a contractual zone of peace agreement to limit navigation of naval ships in the zone. Even then, naval powers might be willing to participate initially only in areas that they consider to have minor strategic importance.

Any contractual agreement would have to guarantee the right of entry into a zone of peace for the purpose of self-defence. Under the new Law of the Sea and in context of a zone of peace practice, naval States would have the right of entry into the zone of peace but subject to "prior approval." Any deployment of non-zonal naval ships in a zone of peace that was found not to be in response to an invitation for self-defence, could

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<sup>47</sup> Tzarev, op. cit., p. 158.

<sup>48</sup> Gurung, Sangroula and Adhikari, op. cit., p. 90.

<sup>49</sup> See: "Acuerdo del Consejo Superior Universitario de La Universidad de el Salvador Creando el Centro Internacional Para el Estudio y Promocion de Zonas de Paz en el Mundo." San Salvador, El Salvador, 18 de enero de 1995. During the summit meeting of Central American Presidents at Puntarenas, Costa Rica in 1990, the Presidents declared their collective intention to create a Central American Zone of Peace and Cooperation. (See "Report of the Ad Hoc Committee: Centroamerica, Paz, Desarrollo E Integracion," San Jose, Costa Rica: Consejo Superior Universitario Centroamericano, June 1993.) It is the intent of the ZOP Center, as a follow up to the Presidential declaration, to prepare a Central American Zone of Peace Treaty for possible ratification by the concerned parties.

be construed to imply a non-peaceful use of the seas. Needless to say, this issue is very sensitive and will necessitate extensive study.

In its final form, the new Law of the Sea has divided the seas into different zones that, in turn, placed restrictions on free navigation and signalled the demise of the Grotius regime. Noting this demise, Friedheim queried, "What replaced freedom of the seas as the paradigmatic idea for the new ocean regime?" His reply: "Nothing." The new Law of the Sea, however, contains two new principles, "peaceful use of the seas" and the "common heritage of mankind." Combined, the peaceful use of the sea commons formulates the new paradigmatic idea to replace the paradigm based on freedom of the seas. Boleslaw Boczek noted this development and wrote:

[the] fact that the text of the Convention includes such reservation (of peaceful purpose) is a turning point in the history of the law of the sea. Peace, the most cherished value in the relations of nations, has found a place in the codification of international law governing the oceans.<sup>50</sup>

If indeed the principle of exclusive use of the seas for peaceful purposes becomes the core feature of the new Law of the Sea paradigm which restricts the peacetime mobility of naval ships, what mechanism can convert this principle into a viable practice? I submit that the zone of peace represents the most comprehensive model that can translate the principle of peaceful purposes into a practice. At the same time, navies, committed to freedom of the seas, will not just stand by to see their "freedom" reduced. When all is said and done, naval power still rules the seas. But even here, the staunch advocates of free navigation may have to bend. Mark Janis observed this dilemma. He wrote that "navies must reexamine their relationships to the law of the sea and their preferences for legal rules keeping the emerging ocean order in mind."<sup>51</sup>

It is exactly in the context of the emerging ocean order that navies may consider a zone of peace practice as an important development of that order.<sup>52</sup> But it may take many years before the peaceful purposes reservation bores its way into an international practice and becomes an accepted feature of the ocean order.

Although not discussed above, the seas suffer from menaces other than being used as invasions routes. The problems of pollution and exploitation of marine resources are of increasing criticality. "We now know that, under present conditions, freedom to use the ocean commons may also be the freedom to destroy it... because of technological change, users can produce public 'bads' and deposit them in the oceans at the expense of all of us."<sup>53</sup>

Jon Van Dyke also noted the dangers faced by the new ocean regime:

All of these competing uses and threats to the oceans require the development of a comprehensive regime governing uses of the ocean and protecting its resources. Regional governing bodies may be a more appropriate means to regulate the oceans than is a global

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<sup>50</sup> Boczek, op. cit., p. 358.

<sup>51</sup> Mark Janis, *Sea Power and the Law of the Sea*, Lexington, Massachusetts: D.C. Heath and Company, 1976, p. 92.

<sup>52</sup> Boczek, op. cit., p. 361.

<sup>53</sup> Friedheim, op. cit., p. 18.



international body. Because of the diversity of political systems and the different situations affecting different oceans, the world may not be ready for a single ocean governance entity.<sup>54</sup>

The regional governance to which Van Dyke alludes may be found in a zone of peace practice. The treaty that creates a zone of peace can include instruments of governance to regulate not only conflict related issues, but also the stewardship of the sea's resources.

If found functional and if they promote confidence-building, zones of peace will multiply and even expand to the seas of the northern hemisphere. The new law of the sea principles of "peaceful use" and "sea commons" charge the zone of peace practice with a vision that may transform not only the ocean commons, but also Planet Earth into a global zone of peace.

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<sup>54</sup> Jon Van Dyke, "International Governance and Stewardship of the High Seas and Its Resources" in *Freedom of the Seas in the 21st Century*, op.cit., p. 18.

# SECURITY, INDEPENDENCE AND AUTONOMY IN CENTRAL AMERICA AND THE CARIBBEAN

*Fabio Castillo*

The objective of this chapter is to explain the conditions of the Caribbean and Central American nations over the centuries, ever since America was conquered and until our days after independence.

The relationship between the countries of the region and the states that use the interoceanic means of communication has been a reason of concern for the Committee for Peace among the peoples of Central America. Based on this concern, the Committee requested that the University for Peace should carry out a study to find an international juridical regime that would guarantee the safety of the communication routes in the region through nonmilitary means.

The first step was to analyze the political and social conditions in the Central American countries and in the Caribbean region, as well as their current degree of dependency resulting from the interests of the nations using the maritime communication routes. A study group was created upon the suggestion made by the Committee to the University for Peace. It worked from January 1987 to November 1990.

The Committee had concluded that the future of the countries in the region was determined, to a great measure, by the fact that it has been a transit zone ever since the XVI century, that is, when Vasco Núñez de Balboa crossed the Panama Isthmus and set foot on the Southern Sea, now the Pacific Ocean, in September 1513; this event revealed that the two great oceans were just separated by a narrow strip of land, only eighty kilometres wide. Since then, the region has been considered an international transit zone. Spain used the isthmus to cross over to the Pacific Ocean and began conquering the west coast of South America; it began to use the Caribbean as a hub from which to extend its conquest activities. It also chose to use the site as a depository of all American riches to be shipped to Spain. In turn, pirates centred their attacks on the area.

The importance of the Caribbean as a passage zone and of the Central American Isthmus as an interoceanic route increased century after century, and is presently growing decade after decade, beginning with the inauguration of the Panama Canal in 1914. The Committee, and later the study group formed within the University for Peace, concluded that, being a zone of international transit, the principal user nations of these communication routes have tended to keep political control and military power over the countries in the region; this has meant that, even after gaining their independence, the countries of the region can not enjoy their freedom and autonomy, nor can they exercise their right to self-determination.

The University for Peace study group set out to find a special international juridical regime that could guarantee the safety of the communication routes, through nonmilitary means, assuming that once the communication routes were secured there would no longer be a justification or pretext for the region to bear this domination and military and political control. Throughout the whole 19th century, Central America and the Caribbean were the scene of a struggle between the two Saxon powers to control the inter-oceanic routes.

When the Gold Rush began in 1848 and huge crowds moved from the East to California, the most suitable route passed through Central America either through the Panama Isthmus or through Nicaragua, specifically the San Juan River and the Cocibolca Lake. This passage was called the Transit Route, controlled by Vanderbilt, and was the site used by William Walker to attempt to conquer and dominate Nicaragua and guarantee safety on the Transit Route.

In the mid-19th century, North American strategists stated that the security of the United States depended, to a great measure, on their military control of the Caribbean, which they considered an inland sea of their exclusive property. Although this could have been true last century, it no longer is at the end of the 20th century because of modern weapons, both offensive and defensive.

### **The Peace Zone as an International Juridical Regime for Central America and the Caribbean**

In November 1987 the First International Seminar was conducted, with the participation of representatives of the academic and governmental sectors of Europe, Latin America and the Caribbean interested in security issues. The Seminar concluded that a peace zone regime could be the most suitable international juridical regime that could guarantee safe communication passage. Previous attempts to define the term "Peace Zone" in other regions were studied. The Seminar also considered the recommendation made by the United Nations Committee in 1978, in the final document of the Tenth Meeting on Disarmament. This document urges the nations of the world to create diverse Peace Zones, as a means to attain peace in the world.

The University for Peace study group agreed that the Peace Zone Declaration should be based on a Treaty signed by all the States of the region, and then presented to the United Nations, to obtain its support and that of most states, especially of the great powers using the communication routes. The Treaty must have a precise geographic framework.

The Central American and Caribbean Peace Zone must pursue two fundamental objectives:

1. to guarantee the safety of communication routes at all times; and
2. to guarantee that the security of all nations in the Caribbean and Central American region is respected, as well as their independence and autonomy.

Precise definitions were deemed necessary after observing that the UN declarations of peace zones in the Indian Ocean and in the South Atlantic were not accompanied by a precise geographic framework nor by a definition of the rights and duties of the States. The result of this was that no nation felt bound; Gros Espiell described these Peace Zones as "juridical entelechies, two beautiful expressions of laudable objectives that have not achieved positive results and have not been capable of promoting peace in the region."

The Peace Zone, we concluded, should encompass the States' territories, including their air and maritime spaces. All mainland countries adjacent to the Caribbean as well as all the Greater and Lesser Antilles should be included in the zone which thus would be delimited by the landward boundaries of the coastal states.

To this point in time there is not yet an agreement as to the juridical characteristics of a Peace Zone despite the multiple references and declarations indicating political will. Aside from the Peace Zone Declarations for the Indian Ocean and for the South Atlantic, of 1971 and 1986 respectively, there was the initiative of the Non-Aligned Countries in 1970; the General Assembly of the Organization of American States agreed, in 1979, upon the initiative of Grenada, to ask all countries of the world to recognize the Caribbean as a Peace Zone.

In 1978, the Special Session of the United Nations General Assembly, devoted to disarmament, urged the world in paragraph 64 of the final document to declare multiple zones of peace as a mechanism to help strengthen the security of nations and overall international peace. In the 1980s the First Meeting of Heads of States members of the political agreement and consultation mechanism included in the Acapulco Agreement their pledge to promote the creation of Zones of Peace and Cooperation.

The study group of the University for Peace called for a second Seminar in May 1989 to discuss the possibility of declaring Central America and the Caribbean a Zone of Peace and Cooperation. Finally it summoned a Diplomatic Conference, with the support of the Costa Rican Ministry of Foreign Affairs, on 31 October and 1 November 1990 to present the proposal to declare the Caribbean and Central America a Zone of Peace and Cooperation.

The Vice-Chancellors of Central America agreed to take the first steps to declare a Peace Zone limited to their own countries, and they put this matter on the Agenda for the Presidential Summit of December that same year. The Presidents, in their final statement, declared Central America a Region of Peace, Cooperation and Development, avoiding to use the term Peace "Zone."

### Legal Characteristics of a Zone of Peace

The basic commitment of the nations in the region would be to declare the permanent neutrality—at times of peace and at times of war—of the air and maritime communication passages, although the nations themselves do not have to be permanently neutral. We must not forget that the permanent neutrality principle, in peace and in war, was established in the Constantinople Treaty in 1888; it was recognized once again in the Treaty on the Neutrality of the Panama Canal in 1977.

The working group of the University for Peace, in trying to define what a peace zone is and what juridical characteristics it has, agreed to propose that it must be established by means of a Treaty, freely signed by the States of the region and not merely through the declaration of a multinational organization. The other characteristics being proposed are those logically deriving from the concept of Zone of Peace.

1. The permanent commitment to peacefully settle conflicts and to forbid the use of force and threats for their resolution. Indeed, in a Zone of Peace, no one can resort to violence nor to threats to solve conflicts that may arise between two or more nations.
2. The states parties to the Treaty pledge to not allow the establishment of foreign bases in their territory and to negotiate the dismantling, as soon as possible, of those existing at the time the Treaty is signed. Domestic military bases existing at the time the Treaty is signed are not prohibited, although presumably they will disappear as mutual trust is strengthened and as peace is exercised, gradually leading to disarmament and demilitarization.
3. The Treaty constituting the Zone of Peace will establish the prohibition of military manoeuvres by foreign nations in the region or of manoeuvres by a foreign country in conjunction with a country of the region; military manoeuvres of any country of the region are forbidden in international waters, as well as joint manoeuvres of two or more nations, even within their own territories (Art. 12 and 13 of the Draft Treaty). It is presumed and must be so considered that even military manoeuvres of a country in its own territory will tend to disappear since they will no longer be considered necessary as mutual trust develops and as the millennial principle, *si vis pacem, para bellum*, “If you want peace, prepare for war” must change in order to consolidate world-wide peace. It must now read, *Si vis pacem, para pacem*, “If you want peace, prepare for peace.”

According to the United Nations Convention on the Law of the Sea, 1982, there can be no military activity in the Exclusive Economic Zone (Art. 141) without the consent of the coastal state. This sets forth that the Zone can be used exclusively for peaceful purposes and will be open to use, exclusively for peaceful purposes, by all States, be these coastal or land-locked, without discrimination and without detriment to the other provisions of this section.

In turn, Article 301 of the same Convention, when defining the utilization of the sea for peaceful purposes, states that by exercising their rights and complying with their obligations under this Convention, the party States will refrain from recurring to threats or to the use of force against the territorial integrity or political independence of any State or in any way incompatible with the principles of International Rights included in the United Nations Charter.

4. In the Central American and Caribbean Zone of Peace there can be no transportation of nuclear weapons nor of any weapon of mass destruction, be it of a conventional, chemical, or

bacteriological nature; therefore, the transportation of these arms throughout the region is banned. If these weapons cannot be transported through the Panama Canal, it will be unnecessary for them to be carried over the international waters of the Caribbean; consequently, the nations having this weaponry will have to voluntarily accept this limitation as a contribution to global peace. There are, however, some difficulties with this prohibition since in the Treaty on the Neutrality of the Panama Canal that nation pledged to allow the passage through its territory of all vessels, and it does not have the right to inspect the cargo nor the vessel's power source. Therefore, the endorsement of this Treaty by Panama and the compliance of this limitation will demand special negotiations.

### **On Human Rights, the Protection of the Environment and Natural Resources of the Peace Zone**

The States parties to the Treaty that declares Central America and the Caribbean a Zone of Peace commit themselves to guarantee the respect of Human Rights, closely related to Democratic Security, that is, for the safety of all the people living in a given territory; they commit themselves to respect the economic, social and cultural rights as well as civil and political rights.

The concept of Democratic Security has gained strength after our proposal of October 1990; lately, the Central American Security Committee has made important contributions to the development of this doctrine and of the Democratic Security concept, and it has discussed a Democratic Security Treaty, to be signed by the Central American Presidents during their Summit meeting this month in Tegucigalpa, Honduras.

Democratic Security in the Peace Zone means the safety of the "demos," that is, of all citizens or of all persons inhabiting a territory. This concept is contrary to the security doctrines that favour the safety of local minorities; it is thus contrary also to the national security doctrine, that sacrifices the safety of individuals to the security of the state, and consequently benefits the safety of the minorities that rule the state.

In the Zone of Peace, the people have the right to dispose of their riches and their natural resources, and the states must actively participate in regional integration and in cooperation, in order to protect the environment and the natural resources, and to cooperate in the exploitation of these resources in the marine environments of the Exclusive Economic Zone and further beyond, on the continental shelf, on the sea bed and its subsoil, where exploitation will demand the use of state-of-the-art technology not available to the individual countries, but that could be exploited with technical and financial cooperation.

The Declaration of Peace Zones sets forth the conditions to establish internal peace, social and economic development, integral respect of human rights, for international peace in the region. It will be a significant contribution to global peace by banning the transportation of nuclear weapons and weapons of mass destruction, both across the isthmus from one ocean to the other and over the Caribbean Sea. It will be a significant contribution to the development of mechanisms leading to mutual trust and, naturally, to the suppression of all international conflict in the zone. It will improve the cooperation and integration perspectives among countries and the conditions to protect the environment throughout the zone as well as the conditions to rationally exploit natural resources.

### **Political Progress on the Declaration of Peace Zones in Central America and the Caribbean**

In the October 1990 diplomatic conference, the Vice-Chancellors of five Central American countries agreed to take a first step towards the adoption of the Peace Zone Declaration, limited to those five nations, namely Guatemala, El Salvador, Honduras, Nicaragua and Costa Rica. About forty-five days later, the Presidents of these five states meeting in Puntarenas gave a final statement on 17 December, declaring Central America a Region of Peace, Cooperation and Development.

Subsequently, the Central American universities, members of the confederation, agreed in March, 1992, to take up the project and promote understanding of and discussion on the Declaration in the academic

environment. They later agreed that the two universities, UNA of Costa Rica and UES of El Salvador, would create a Central American programme consisting of two components: first, a study plan related to Central American integration, and second, a study plan for the Zone of Peace Declaration of the Caribbean and Central America.

In compliance with this decision of the Central American University Council, the UNA prepared the special courses on integration, and the University of El Salvador created the International Centre for the Study and Promotion of Zones of Peace in the World.

An important step forward has been the initiative to sign a Treaty on Democratic Security in Central America, a concept proposed by the South American Peace Commission and taken up by us in the draft Declaration of Zone of Peace presented in October 1990. This Treaty will boost the democratization process in the region, and we consider it as part of a process to create a zone of peace in order to stamp out military conflicts, to protect natural resources and to guarantee security in the Caribbean Sea.

The Declaration of a Zone of Peace in this region constitutes an attempt to end five hundred years of political domination and exploitation. A zone of peace in the Caribbean Sea is not easily created because of the history itself of this area and because of the view that the great powers have about their own security. But in the same light, the Zone of Peace must provide the foundation to support and respect the self-determination of all nations, large and small.

**PART IV**

**COMPREHENSIVE SECURITY**

# SEAPOWER AND RESERVATION FOR PEACEFUL PURPOSES

*Fred W. Crickard and Gregory L. Witol*

## **Introduction**

The end of the Cold War has produced, at least among the major powers, a more benign security environment. Many analysts speak of a “new world order” predicated on the will of the global community and the rule of international law. Notions of security have broadened in the developed countries and concepts of common and cooperative security share the light with collective security as understood by the founders of the United Nations. Military force, it is hoped, will evolve from being under the sole control of individual states, let loose only to attain goals of self-interest, to a force used under the auspices of the international community to maintain international peace and security. Much of this new hope is evident in the United Nations Convention on the Law of the Sea (LOS Convention) which, we are told, “limits, transforms, and transcends the concept of sovereignty” and “may be developed as the legal basis for the denuclearization of regional seas or the oceans as a whole, or the designation of seas and oceans as zones of peace...” (Borgese 1995: 17, 33). Yet the role of seapower, rooted as it is in geography, technology and historic cultural beliefs, pre-dates by generations these new, emerging concepts of security. Has the establishment of new legal mechanisms really allowed for a fundamental shift in the way that states have employed seapower for centuries?

The aim of this chapter is to assess the relevance and influence on seapower, that is, the use of force or the threat of its use on the oceans, of new concepts of security; in other words, the effect on seapower of emerging guiding principles on the limits of military force. The question to be addressed is, for all of the enlargements of international law, treaties, and global norms and mores, what, if any, has been the interaction between these guiding principles and the uses of navies at national, regional and global levels?

The chapter will commence with a survey of salient global, regional and bilateral/national principles and behaviour that have evolved to limit military force in the nuclear age. This will be followed by an assessment of two sets of functional issues in maritime security, naval arms control and naval peacekeeping, and how they are changing in the post-Cold War era. To illustrate these points, the evolution of seapower and the change of focus from the global arena as a whole to regional arenas in the Asia-Pacific region over the same period will be surveyed. If “reservation for peaceful purposes” is to have any impact on the relations between states, and the LOS Convention is to provide a framework for a fundamental re-ordering of the way that states view their interactions upon the high seas, then any relationship between the requirements and hopes of this document, and the corresponding actions taken by states, must be a direct, rather than a spurious, relationship. For if state policy is based on issues other than the newly-codified international law of the sea, then any reversals in the currently benign security environment will leave us unable to respond, for our previous “solutions” were based on false hopes and promises. The chapter will conclude with an assessment on whether and how the guiding principles have made a difference on how states acquire and use their maritime forces.

## **Guiding Principles on the Limits on Seapower**

Since 1945 a large body of principles on limits to military power has accumulated, some of which are specific to seapower. Although the impact of this thinking is not reflected in the technological development of warships and weapons systems which are ever more capable of operating in all regions of the world, philosophically at least, the need for restraint, mightily buttressed by the fear of nuclear war, is now part of the naval ethic. Admiral of the Fleet, Lord “Jackie” Fisher's view that “The whole principle of naval fighting is to be free to go anywhere with every damned thing the Navy possesses” is hedged by qualifiers in the consciousness of today's Admirals and navy-minded statesmen. Certainly, the resort to military force carries with it greater implications than it did a century, or even fifty years, ago, particularly in the West.



Changing thinking on unfettered use of seapower since the Second World War originates in and pertains to: the use of nuclear weapons; limits on the use of conventional general purpose naval forces; and arrangements to prevent accidental naval encounters. Some of these principles have global applications, some regional and a few are bilateral, national undertakings.

Global principles on the limits of military force are either general themes as expressed in the United Nations Charter (1945), the United Nations Convention on the Law of the Sea (1982) and *Agenda for Peace* (1992), or are applicable to nuclear weapons, such as the *Nuclear Non-Proliferation Treaty* (1968), or are geographic as in the *Sea Bed Treaty* of 1971. Regional applications on limits to military power affecting seapower include the provision for collective self-defence in the *North Atlantic Treaty* (1949) and the rules on transparency reflecting the norms of common security found in the *Final Act of the Conference on Security and Cooperation in Europe* in 1975. In addition, there are regional geographic limits on military forces such as the *Antarctic Treaty* (1959) and the various Nuclear Weapons Free Zones such as the *Treaty of Tlatelolco* in Latin America (1967) and the *Treaty of Raratonga* in the South Pacific in 1985. Bilateral national principles include the various Incidents at Sea agreements starting with the 1972 INCSEA agreement between the US and the USSR governing naval rules of conduct in close quarter situations between warships at sea so as to reduce incidents that could escalate into major political crises.

### ***Global Principles***

It has been argued that one cannot commence any assessment of measures impacting upon the use of seapower without first mentioning the UN Charter.

First, the charter is the bedrock for modern international relations; no other instrument purports to lay down in such terms the fundamental rules for state conduct. Second, it is universal in its application. Third, it deals specifically with military power as a phenomenon, and the desire to limit the effects of that power was one of the principal impulses that led to the charter (Hill 1989: 51).

The Charter forbids states to threaten or use force, though it explicitly allows them to use force in self-defence. The use of force was to be authorized through the Security Council, with the assistance of the Military Staffs Committee, both of which were essentially deadlocked during the Cold War. The post-Cold War world has seen greater opportunities for cooperation, and the UN may be able to have a more positive effect on the relations between nations. There have been many other documents and treaties which have had an influence upon the employment of seapower since the end of World War II, and all of them make specific reference to some aspect of the UN Charter.

The *Treaty on the Non-Proliferation of Nuclear Weapons* of 1968 has had its most direct impact on the slowing (if not negation) of non-nuclear navies acquiring or purchasing nuclear propulsion systems and weapons (Hill 1989: 64). Indirectly, the call, in Article VI, for all states party to the treaty to undertake negotiations in good faith for complete and general nuclear disarmament has been used by some non-nuclear states unhappy with their "second-tier" status to remind regularly the superpowers of their obligations.

The *United Nations Convention on the Law of the Sea*, 1982, entered into force on 16 November 1994. That Convention established a right to a twelve-mile territorial sea and a 200-mile exclusive economic zone. While the right of innocent passage has been maintained within the territorial sea, there are some limitations upon warships. For example, submarines must travel on the surface and display their national flag (a requirement absent in passage through international straits), and there are special provisions for nuclear-powered ships. The EEZ provides states with authority for economic and environmental jurisdiction. With regards to the transit of warships and operations within this zone, actions taken by the coastal state must fall within the previously mentioned categories. It is clear, however, that disputes will arise over resource

management within, and beyond the limits of, the EEZs, creating the possibility for conflict. Nearly 40 percent of the world's oceans now fall under EEZs, and diminishing global resources have made the bounty of the seas more attractive to many states. Debates over where the EEZ lines should be drawn have the potential to emerge as a new source of inter-state conflict.

The LOS Convention also states, in Article 88, that the "high seas shall be reserved for peaceful purposes," and while Article 95 makes it clear that "warships on the high seas have complete immunity from the jurisdiction of any state other than the flag state," there does appear to be a great deal of room for interpretation of these two articles. Ecuador, for example, viewed the reservation for peaceful purposes as stating that UNCLOS provided for the complete prohibition of military activities at sea, while the United States held that the article should only be interpreted as meaning that military activities on the high seas must conform to the UN Charter (Boczek 1989: 345-6).

### ***Regional Applications***

The *North Atlantic Treaty* of 1949, making reference to the provisions of the UN Charter for collective self-defence, has had an influence in the current world due to the experience and success it has had with regards to multinational naval forces, particularly the Standing Naval Force Atlantic (STANAVFORLANT). Operational and communications integration there have set a standard that many scholars regard as the basis for any future UN naval force or other multinational naval forces.

The *Antarctic Treaty* of 1959 expressly forbids the deployment or stationing of military forces south of 60 degrees south longitude, though excluding the high seas from this area. This distinction helped to enshrine the Grotian concept of freedom of the seas, while establishing a (somewhat weak) precedent for the governing of military activities on non-occupied territory. Its principle impact on naval thinking has been continuance of free movement of warships on the high seas.

The Final Act of the *Conference on Security and Co-operation in Europe*, 1975, laid down a variety of rules designed to improve communication and verification between NATO and the Warsaw Pact. It required notification of exercises above certain personnel levels, and limited some exercises such as amphibious landings and airborne assaults. Its main underlying assumption was to prevent preparation and conduct of mass exercises from being misinterpreted as stages for actual combat. There are now calls in various circles for the concept to be extended to other regions, and to include naval activities.

### ***Bilateral/National Applications***

The *Agreement on the Prevention of Incidents on and over the High Seas*, 1972, effectively set up rules to prevent various types of manoeuvres and simulated attacks, and provided a framework for American and Soviet naval officers to deal with incidents in a calm and cool manner. It is generally agreed that it has been effective as both a confidence building measure and as a practical guide during actual incidents. There have continued to be calls to extend its provisions to other actors, through bilateral, regional, or global arrangements. Within the Middle East, for example, the development of INCSEA agreements has been seen as a first step towards confidence building measures in that region.

### ***A Benchmark***

The United Nations General Assembly *Study on the Naval Arms Race*, 1985, described the global naval balance near the end of the Cold War, and outlined the purposes and roles of navies in both conflict and cooperation. It then made several suggestions, including restrictions on nuclear weapons and operations in certain geographic areas, as well as others governing the modernization of the laws of sea warfare. The study concluded that two broad courses of action were required:

1. the achievement by negotiation of de-nuclearization at sea and the lowering of conventional armaments to provide for security at reduced levels, and
2. the investigation of ways that naval organizations can make “positive contributions” to an improved and more effective oceans management policy.

Much of this chapter compares the maritime security situation today with 1985. Many of the ideas in the UN *Study* appear to be unfolding. In fact, to read this document in isolation from the incredible changes that took place by the end of the decade, one could conclude that states took its message to heart. The question is, however, did these achievements come about because of UN pressure, or through the process of traditional power politics?

### **Functional Issues in Maritime Security**

In this section, two sets of issues will be reviewed. The first concerns naval arms control and the associated questions of nuclear disarmament and confidence-building at sea. During the Cold War, naval arms control and disarmament were largely treated by the UN as a sub-set of strategic and conventional arms control. At the global level, in the UN, and the regional level, in NATO or the CSCE, naval arms control was one of the “bargaining chips” used in the game between the two super-powers until the financial burden of armaments persuaded them to take arms control seriously. Naval arms control and disarmament was examined broadly in the 1985 UN General Assembly *Study on the Naval Arms Race*. In this section, the progress made in the last ten years will be assessed.

The second issue is *naval peacekeeping* by the UN and by *ad hoc* coalitions or regional associations. The idea of a UN naval task force was proposed by the Soviet Union during the *Tanker War* in the Iran-Iraq conflict in 1987. Since the end of the Cold War, and the UN *Agenda for Peace* in 1992, the concept has become a popular topic with many strategic analysts. In fact, the use of multinational naval forces used to further international peace and security is not new nor was it invented by the *Agenda for Peace*. The use of allied naval forces in a traditional form of coalition naval diplomacy has been used since the days of sail. During the Cold War, multinational naval force (MNF) operations were brought to a high state of effectiveness in NATO. Other examples include the Five Power Defence Arrangement (FPDA) in Southeast Asia, the US-led UNITAS exercises in South America, and the biannual RIMPAC series in the North Pacific Ocean. International maritime cooperation is commonplace serving both political and operational objectives of foreign policy. The specific application of a UN peacekeeping force will be assessed in this context.

### ***Naval Arms Control, De-nuclearization and Confidence-building Measures at Sea***

The study of arms control is a broad discipline, with a variety of underlying motives. It is generally conceded, however, that there are three basic reasons: to reduce the likelihood of war; to limit the destructiveness of war should it occur; and, to lower the financial costs associated with the maintenance of armed forces. This begs the question of whether nuclear arms control and disarmament are even relevant when international relations are benign. Hedley Bull has argued that:

Only the existence of international tension makes arms control relevant. It is relevant when tension is at a certain point, above which it is impossible and beneath which it is unnecessary.... [W]here there exists political tension between nations above a certain degree some kinds of arms control appears out of the question. It should also be pointed out that where there exists political tension below a certain degree, when the relations between nations are marked by sympathy and amity, arms control appears to be irrelevant (Bull 1961: 75).

During the Cold War, most attention was focused on the control of nuclear weapons with limitations on conventional weapons being, for the most part, relegated to the sidelines. There are a multitude of concepts which can be grouped under the rubric of arms control, the main ones considered here are: the control of nuclear weapons at sea, limitations upon conventional weapons and confidence building measures.

There have been a large number of arms control agreements directed at navies. James Tritten (1992: 9-10) lists 37 measures which apply to the US Navy (USN), a remarkable number considering the expressed opinion of USN policy makers that arms control at sea is a “slippery slope” that will ultimately end with the diminishment of freedom of the seas for warships and the subsequent lessening of the navy’s value as an instrument of foreign policy. Regardless of the merits of this argument, there are several factors which cause naval forces to be different from other elements with respect to arms control.

The most important reason is the “reach” of naval forces. Crossing or overflying the territory of other nations has important ramifications in international law, whereas the high seas are supposed to be open to all. This concept is firmly entrenched in the LOS Convention. The medium of the oceans allows for all to mix in ways that are simply not possible on land. The open nature of the oceans makes all coastal states, to some degree, the neighbours of the other coastal states. Andrei Granovsky has noted that “the question and reduction of armaments at the regional level is quite controversial by virtue of the global nature and high mobility of naval forces ...” (1991: 161).

Since states will always have some interest in ocean resources and maintaining their legitimate jurisdictional rights, navies have an oceans management role to play. As Eric Grove pointed out,

This, coupled with the difficulty of assessing overall force capabilities when longer fights and all types of platforms—surface, subsurface and airborne—have to be taken into account, makes classical arms control very difficult, if not impossible, in the naval context (1990: 100).

The control of nuclear weapons in the maritime context also differs from that on land. Submarine-launched ballistic missiles are argued by many to contribute strongly to deterrence, thus contributing to global security. Tactical naval weapons are a different matter, and in the post-Cold War world their utility is questionable.

### ***Nuclear Disarmament at Sea***

The 1985 United Nations General Assembly *Study on the Naval Arms Race* had, as its first recommendation, the achievement of “effective measures of nuclear disarmament at sea in order to halt and reverse the nuclear arms race until the total elimination of nuclear weapons and their delivery systems has been achieved.” While in all respects the prospects of complete nuclear disarmament are scant, de-nuclearization at sea varies dramatically in regards to whether the issue is tactical or strategic nuclear weapons, a point missed by an all-encompassing term such as “de-nuclearization.”

The tactical use of naval nuclear weaponry is, essentially, a “last-ditch” response to force, due to the inherent difficulties associated with their use in a tactical environment.<sup>1</sup> Some of these difficulties include the danger of collateral damage to friendly units, the effects on electronic communication systems, and the difficulty of maintaining acoustic surveillance (Hill 1989: 108). For forces attempting to engage in long-term operations on the seas, a nuclear environment makes this exceedingly difficult. Since the end of the Cold War, naval tactical nuclear weapons, deployed to deal with specific and contextual threats, have been largely eliminated as an agenda item. On 27 September 1991, President Bush announced a unilateral US decision to

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<sup>1</sup> “Tactical” refers to the level of force which, according to Luttwak, is the “detailed craft of war,” that is, the level concerned with the immediate interaction of opposing forces within a limited operation theatre (Luttwak 1987, Chap. 6).

remove all non-strategic nuclear weaponry from maritime platforms. Within the next two days, Britain and France also agreed to this, followed by the Soviet Union on 5 October (Lacy 1993: 91-2). These decisions effectively quashed the entire debate and associated issues such as the opposition of many non-nuclear states to “neither confirm nor deny” policies. Like all tactics, the use of naval tactical nuclear weaponry is inherently bound to the political and military context in which states find themselves as much as to the effectiveness of the weapons themselves. The development of more precise conventional weapons removed the need for cruder devices, especially when the political and escalatory implications of nuclear weapons outweigh the military advantages.

The question of strategic<sup>2</sup> nuclear weapons, particularly at sea, is quite different from that of tactical weapons. The vast majority of strategic nuclear weapons at sea are carried in ballistic missile submarines (SSBNs), and the difficulty associated with detecting and destroying SSBNs (due to their depth, silence, and long under-water endurance) makes them especially invulnerable. This survivability is argued to have a stabilizing effect, since they maintain a second-strike capability, ensuring that no state can guarantee itself free from retaliation by knocking out an opponent's land-based missiles. With the deep cuts in US and Russian ground and air launched nuclear weapons associated with START II, some strategists have expressed concern that the numbers may fall to such a point that the possibility of initiating a successful first strike could grow. The reduction in land-based nuclear weapons means that they must be either mobile or dispersed in order to survive a first strike. In order to prevent this, it has been argued that most of the remaining nuclear capability should be deployed in SSBNs, creating a secure but numerically diminished deterrent (Slocombe 1990: 306). If reservation for peaceful purposes is designed to further the international peace and stability of the world as a whole, then preventing nuclear weapons from being deployed at sea could be counter-productive to this goal.

De-nuclearization has, among other things, been proposed for essentially two reasons, the reduction of the likelihood of war and the reduction of finances associated with maintaining a deterrent force (Lamb 1988: 35). During the tense days of the Cold War, the former of these reasons was seen to be the more important. Today, however, the likelihood of war between the West and Russia has been greatly diminished, thus reducing the incentive to maintain huge forces-in-being. Of course, lowering the number of nuclear weapons should statistically reduce the likelihood of an accidental nuclear exchange, but monetary savings would appear to be the more pressing reason as to why nuclear weapons states are striving for lower levels of armaments. Yet as nuclear weapons cannot be “unlearned,” the maintenance of a deterrent force (though diminished from its current standings) will likely be maintained for the foreseeable future.

### ***Conventional Naval Arms Limitations***

As noted above, conventional naval arms limitations pose problems when placed in a geographic context, due to the principle that “the sea is one.” While there has been renewed interest in controlling the trade in naval arms following the Persian Gulf war (Lacy 1993: 122), there are two distinct pressures which are currently opening up the world market for conventional naval weaponry and platforms.

The first is the end of the Cold War. For most of the industrialized powers, this means divesting themselves of much of their military hardware in order to reap their “peace dividend.” This is particularly obvious with the former Warsaw Pact countries. The end of ideological competition has also reduced the picture of the world as a zero-sum game, meaning that many states can no longer expect the support, or at least the good will, of a superpower.

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<sup>2</sup> The concept of “strategic” weapons implies that their capacity to affect the outcome of military engagements is not limited to their theatre of deployment. Their ability to produce a decisive outcome is independent of (almost) any geo-strategic considerations.

The second is the increased competition for marine resources in certain regions, particularly in the Asia-Pacific region. Naval build-ups in this region will continue to be of salient concern (Lacy 1993: 129; see also Selin 1994). Under the LOS Convention, states are responsible for a 200-mile EEZ, which will certainly lead to calls for the capability to control the resources in these zones. Claims to such archipelagic islands as the Spratlys can greatly increase overlapping EEZs, so it should not be surprising that these have the potential to be highly conflict-prone areas.

Conventional naval arms control in the past has ranged from efforts to establish ratios of specified classes of ships among the various powers, to limits on weapons systems such as the sea-launched cruise missile (SLCM). Efforts to restrict “destabilizing” acquisitions, either through a quantitative or qualitative improvement, are seen to be particularly important at a regional level, though the nominal equality of states does lead to some inconsistencies on this point. As Lacy has pointed out, one type of weapon in the hands of Iraq or Iran will be seen by the West as more of a concern than the same weapon in the hands of Australia, Saudi Arabia, or Singapore (1993: 128).

While the nuclear side of the naval arms control equation has been rendered dormant by international events, and there remain many difficulties with conventional arms limitations, confidence-building measures, however, do show promise, and may form the essential first steps required to reach a position of trust where meaningful reductions are possible.

### ***Confidence-building Measures at Sea***

The concept of confidence building measures (CBMs) “may be defined as arrangements designed to enhance [such] assurance of mind and belief in the trustworthiness of states and the facts they create” (Holst 1983: 2). The 1985 UNGA study on the naval arms race noted that one of the best ways to encourage states to undertake disarmament measures is to first build up trust and confidence through CBMs. Among the CBMs they mentioned were:

- the extension of territorial CBMs to seas and oceans;
- agreements not to expand naval activities in areas of tension and conflict;
- restraints on the use of certain weapons systems;
- the increased exchange of information between navies;
- enlarged agreements on “incidents at sea;” and
- ensuring the non-proliferation of certain types of maritime warfare technologies (UNGA 1985, para. 298).

CBMs can be useful in diminishing embedded perceptions and biases, and increasing “transparency” can help reduce worst-case scenario planning, but it is only helpful if the participants are honestly interested in preventing hostile actions (Grove 1990: 103).

CBMs at sea have had a checkered past. On the one hand, certain concepts of international law have long applied to activities on the high seas, providing a measure of regularity to interactions there. Thus “it could be said that a solid set of CBMs was in force at sea long before that particular term was coined” (Prawitz 1990: 106). On the other hand, efforts at securing these measures in the Cold War were not taken very seriously by American planners, who felt that CBMs did not have an effective impact on “real” military issues (Lacy 1993: 49). This is not to say that no progress was made between the superpowers during the Cold War. The 1972 “Incidents at Sea” agreements between the US and the USSR certainly helped to regularize interactions between these two navies, and provided a framework for dealing with problems as they occurred. J.R. Hill has noted that,

American officers have expressed themselves well pleased with the arrangements for discussion with their Soviet counterparts and say that both sides show genuine concern to make the agreement work and improve its operation. There seems little doubt that, as between the two parties, the treaty is an effective measure, and this must mean that it is valuable for world stability in general (1989: 59).

Several areas that were once targeted for CBMs have lost their relevance in the post-Cold War world. Such contentious points as the "No First Use" declaration, and the "Neither Confirm Nor Deny" policy of the nuclear powers no longer have the same relevance. Moving into CBMs at a regional level does hold more promise today, and the US seems more amenable to this concept than they once were (Lacy 1993: 60). It would be difficult to attempt exclusion zones in most regions, since this would interfere with the principle of freedom of the seas, a move that the major ocean-going nations would resist. Increasing the number of "Incidents at Sea" agreements, or even creating a universal "code of naval conduct," has been suggested by some, though Lacy argues that the US would probably resist such a move, since they may want to retain the opportunity to control the movements of foreign warships in certain circumstances (Lacy 1993: 106).

The provisions for EEZs in the LOS Convention give littoral states a greater share of interest in maintaining these zones for their own exploitation, and further discoveries of oil and other resources have made control of these areas desirable. While EEZs are explicitly not to be considered as security zones, states will tend to see the protection of their maritime resources as contained within their security interests. One could argue that the LOS Convention has made 40 percent of the world's oceans more conflict prone. To this end, regional CBMs have a role. Efforts can be directed towards increasing transparency, greater joint operations in "non-traditional" roles, announcing major exercises and equipment purchases or overhauls, and improving communications between the naval commanders of various states.

CBMs can be effective measures in reducing the potential for conflict, but they are only a first step. Increased opportunities for friendly interaction should flow from initial efforts to reduce the effects of confrontations. Such interactions improve the security environment, moving policy makers into considering intentions as well as capabilities. States have proven themselves to be capable of astonishing compatibility when facing a common threat, and the need for effective resource management, protection of the environment, and deterrence of illegal activities, particularly on a regional basis, requires the sort of cooperation that can only emerge from trust. CBMs can help move states towards that condition of trust, and consequently towards a more effective use of resources which would otherwise be consumed in hostility and suspicion. Ultimately though, they can only *help*. Without a desire on the part of all regional players to cooperate and build confidence with each other, CBMs will accomplish little.

### **Movement on the Naval Arms Race Since the 1985 UNGA Study**

In 1985, the UNGA *Study on the Naval Arms Race* concluded that efforts should be made to halt the nuclear arms race at sea, to work at limiting conventional arms, and to establish new roles for navies that would have a "positive" contribution to world peace. Taken simply at face value, the recommendations of this report have been quite successfully implemented, though not for the reasons the study argued. De-nuclearization, at least at the level of tactical weapons, has been achieved, but the reasons for disarmament in this category are due to changes in the security context of the nuclear powers. In an often-quoted passage, Salvador de Madariaga argued that,

The trouble with disarmament was (and still is) that the problem of war is tackled upside down and at the wrong end. Upside down first; for nations do not arm willingly. Indeed, they are sometimes only too willing to disarm, as the British did to their sorrow in the Baldwin days. Nations don't distrust each other because they are armed; they are armed because they

distrust each other. And therefore to want disarmament before a minimum of common agreement on fundamentals is as absurd as to want people to go undressed in winter. Let the weather be warm, and people will discard their clothes readily and without committees to tell them how to undress (1973: 48).

Tactical nuclear weapons have been removed from the seas because of the altered security environment, and not because of any "international" pressure on nuclear weapons states. This is not to say that there were not other reasons which helped push leaders into making this decision. The continuing problems with port visits in certain countries which would not accept "Neither Confirm Nor Deny" policies, for example, were alleviated with the removal of tactical nuclear weapons. Yet this alone would not have made the nuclear powers give up the tactical option (of course, they have not in reality, as nothing can prevent them from re-arming their ships).

The question of strategic nuclear weapons is rather different. Seen by many as inherently stabilising, their numbers are also on the decline. It could be, however, that with complete nuclear disarmament a far off dream, the actual cuts that have been achieved in strategic arsenals warrant more reliance upon the sea-based deterrent. There are certainly areas for improvement in this field, some of which are starting to be put in place. Improved permissive action links, and operating SSBNs outside of the range of their missiles would help to reduce the risk of accidental nuclear war, but as a deterrent to aggression, SLBMs will continue to be used by the nuclear powers.

The UNGA study's recommendations have largely come to pass, and there has been undreamed of progress that seemed utopian in the light of the Cold War. The framers of the 1985 study could claim that they have been successful in their goals, but such a claim ignores the fact that these changes in the international realm came to pass due to the same conditions that brought increased naval armaments: states' view of the security environment that they face. Words on paper are simply that. Without a viable enforcement mechanism, there is nothing to prevent nuclear weapons from being re-deployed to sea. No international law can do this by itself.

### **Naval Peacekeeping - Theory And Practice**

The UN Charter as originally conceived mandated the creation of a Military Staff Committee (Chapter VII, Article 46) which was to work in close cooperation with the UN Security Council, providing expert military opinion on resolving conflicts. The bipolar conflict which marked over four decades of the UN's existence prevented this coordinated planning from working. With the end of the Cold War, however, new opportunities for effective UN operations are becoming apparent. There have been several calls for the UN to develop its own standing naval force to deal with threats to international peace and stability. Naval forces have the ability to project power over great distances, and can influence events on land without becoming mired in questions of territorial sovereignty (though there remain questions concerning territorial waters). Naval forces are also capable of quickly leaving an area if conflict becomes too heated, without the loss of face associated with retreating from a commitment of ground troops. Moreover, several emerging problem areas, such as the Baltic, the Adriatic, the Indian Ocean, and the Asia-Pacific Region are essentially maritime in their nature. Other threats facing the world today are environmental destruction, drug smuggling, massive migration, and piracy.

The *Agenda for Peace*, 1992, outlined the broad perspective for how peace can be acquired and maintained. This breaks down into four main areas: peacemaking, preventive diplomacy, peacekeeping and peace building. Each of these elements has specific actions for which naval forces are suited. Naval forces can assist in peacemaking by undertaking confidence building at sea, and if this proves ineffective the same forces can be employed in preventive diplomacy, enforcing sanctions or crisis management. If the situation worsens, this can be escalated to crisis containment and intervention from the sea to assist in peace enforcement under



Chapter VIII of the Charter. Finally, naval forces can be used to monitor cease fires and provide stability as part of the peacekeeping portion of the agenda or assist in restoring civil and economic order (peace building).

Since the end of the Cold War international naval forces have operated under the auspices of the United Nations in preventive diplomacy (the Adriatic - NATO and WEU); peace enforcement (the Gulf War 1991 - US-led MNF coalition); peacekeeping (Red Sea and the Gulf 1991-1994); peace building (Somalia 1992); and preventive diplomacy (Haiti 1993-1994, using regional (OAS) naval forces). None of these naval deployments, prescribed in the *Agenda for Peace*, operated under the direct control of the UN. They comprised international naval forces from regional associations (Haiti, the Adriatic) or *ad hoc* coalitions led by the United States (the Gulf War, Somalia). Why not a UN Peacekeeping naval force under the UN pennant?

### ***A UN Naval Peacekeeping Force***

Several states and scholars have made both general and specific recommendations on how such a force should be composed. In very broad terms, Canada has stated that it is hoping to expand the concept of cooperative security, and to "adapt peacekeeping operations to take on broader roles" (Department of External Affairs and International Trade 1991: 7). Russia has made some specific calls regarding its vision of UN naval forces, including multilateral forces based on the NATO experience, which would

move toward creation of a single naval structure under the UN aegis through stages: starting with simple coordination of naval operations in exercise of the relevant Security Council resolutions, through joint naval operations under national flags in exercise of specific tasks by the [UN] Military Staff Committee, to the creation of the UN Navy composed of ships assigned by nations on a permanent or rotational basis (Kortunov 1991: 21, cited in Lacy 1993: 108).

Gwyn Prins, the director of the Global Security Program at Cambridge University, has recently advocated the creation of a UN Standing Naval Force (1991), while Robert Staley, a research fellow at the International Peace Academy, has argued for the creation of a UN Maritime Agency, which would deal with everything from explosive international conflicts to long-running environmental concerns. The Agency would be composed of ships volunteered by member states, which would only be called upon when directed by the Security Council (1992: 43).

There are, of course, many obstacles to creating an effective UN Standing Naval Force for peacekeeping operations. Considering the cost of navies, there would be few states willing to part with this instrument of state policy for any extended period of time. Success at sea would require extensive training with the ships of other states, thus making it difficult to assemble a task force in a short period of time. As well, these ships would require modern information and command systems, an asset which relatively few navies possess (Staley 1992: 15-16).

Personnel involved in any such UN Standing Naval Force would require education and training, both of a professional theoretical nature and of an operational nature. Flexible agreements would be needed regarding the employment of national forces for specific missions, and sufficient financial support would be necessary in order to support those states providing the personnel and ships. Explicit rules of engagement, sufficient equipment and support, and effective command, control and communications (C<sup>3</sup>) would be necessary (Staley 1992: 45-9).

In practice, those few states which could undertake a UN naval operation effectively today are those developed states which have worked with the USN in NATO, or in the Pacific during the Cold War such as Australia and Japan. For many of the potential conflicts where a UN naval force would be effective, memories of colonialism and "gunboat diplomacy" would make it difficult for these developed states to be seen as impartial representatives of the UN. The force itself could be seen as being "extra-regional," though efforts to

broaden the number of states would lead to problems of interoperability (Pugh 1992: 12). Relying on regional states may also have its drawbacks, since they may have an interest in the conflict that others would see as biasing their contribution. While none of these problems are insurmountable, they do serve to restrict the options open to the UN.

### ***Multinational Naval Force Operations***

As opposed to a UN Standing Naval Force, *ad hoc* multinational forces show more signs of promise in the near future. There are already precedents for them, particularly the current operations in the Adriatic and their successful use in the Persian Gulf War. Operating under UN sanction but remaining under the command of their national governments, task forces can be composed of ships which are suitable to the context of the situation. As was noted above, the costs of turning warships over to the UN would be a deterrent to most states, but operating with other navies with the blessing of the UN would not only be acceptable to policy makers, but would also be welcomed by naval staffs in the West who are interested in justifying naval forces in an era of reduced government spending (Pugh 1992: 14).

Multinational naval forces would still, of course, pose some operational problems. Interoperability could come at the price of disseminating classified communication technologies. During operations in the Persian Gulf, naval forces were able to have greater integration than did the land and air elements, but this was for the most part due to the acceptance of NATO procedures (Pugh 1992: 13), which was facilitated by the absence of Soviet forces. It is in this area that a UN Standing Naval Force would have advantages over multinational forces, since the UN could develop, through experience, appropriate and effective methods of communication, as well as standardized rules of engagement.

The situation in the Persian Gulf was different from that which faces naval forces operating in the Adriatic today. In the former case, the mandate and command were clearer, due to the clear case of aggression on the part of Iraq, and the coalition was certainly aided by the amount of preparation time they had prior to the commencement of hostilities. The situation in the Adriatic lacks both the clarity and the "sense of mission" that existed in the Gulf, and one can probably expect to see more Yugoslavias than Kuwaits in the future.

Nonetheless, there are both opportunities and motives to establish greater "internationalism" with naval forces, and many of the problems facing the oceans today require a more cooperative framework for action. The UN is continuing to enjoy a "renaissance" and there is a sense of good will that should be capitalized upon while the mood remains. Moreover, it is questionable whether the US will continue to play the role of the world's policeman, either morally or financially, and other possible contenders face equally difficult problems within their own borders. As such, internationalism may not only be merely possible, it may also become necessary.

In summing up, one of the ironies from the Cold War is that the skills acquired in operating international armadas in NATO, ANZUS and US bilateral security arrangements in the Pacific are tailor-made to support globally sanctioned peace operations by the United Nations. While the *loci* of tensions have shifted from global confrontation to regional conflict, the operational dimension of naval diplomacy in regional hot spots is becoming increasingly "internationalized" and global in participation. Operating under a UN pennant may be more acceptable to regional states involved. For the reasons given, however, UN naval forces on the scale required for deterrence, enforcement or crisis response roles are unlikely to become a reality or a substitute for *ad hoc* multinational naval force coalitions of regional states and/or extra-regional powers. On the other hand, smaller UN naval peacekeeping forces may well have a viable role in some situations supporting peacemaking, preventive diplomacy or pre-sanctioned peacekeeping functions. UN naval forces could also be used in specific ocean management areas in "non-traditional" naval missions such as counter-piracy (Lacy 1993: 5).

### **From Globalism to Regionalism: The Evolution of Seapower, 1985 To 1995**

Ken Booth has described the roles of navies as military, diplomatic and policing (Booth 1977: 16). In this section, on the evolution of seapower in the ten years since the UN Study on the Naval Arms Race, navies will be examined in their foreign policy and ocean management roles. The foreign policy role in this paper means the use of naval seapower across the spectrum of interstate relations from policy differences to conflict; i.e., from naval diplomacy to limited war. The oceans management role means the use of seapower in law enforcement, marine safety, public order and humanitarian missions. In other words the *policing* role described by Ken Booth.

One further set of terms or categories is used in this section. Based on the levels of navies described in the UN Study (UNGA 1985: 24), “global navies” refers to the “world wide” navies of the United States and Russia, i.e., the United States Navy (USN) and the Russian Navy. The regional navies referred to here cover the “blue water” and “coastal” navies described in the Study.

The premise of this part is that the predominance of the two global navies as an instrument of foreign policy has declined relatively over the period, while the significance of regional naval powers, both in the foreign policy and oceans management modes, has risen. To support this contention, the transition of the USN and the Soviet/Russian navy over the threshold between the Cold War and the current international system will be compared with the development of some regional navies in the China Seas, the Indian Ocean and Southeast Asian waters. Specifically the naval strategies of the Japanese Maritime Self-Defence Force (MSDF), the Chinese Peoples Liberation Army Navy (PLAN), the Indian Navy (IN) and the principal navies of the Association of South East Asian States (ASEAN) are examined.

Naval forces are planned, built and operated in accordance with the imperative of geography and technology and are strongly influenced by culture and tradition. Moreover states are imitative and model their fleets on successful maritime powers. Warships take a long time to build and last for decades—thirty to forty years. As Richard Hegman points out, greater still than the decades-long lives of ships are the “institutional” beliefs of the naval and political leaderships.<sup>3</sup> All of the navies of the states looked at in this work are the product of these factors which pre-date by many years the body of UN guiding principles on cooperative security. One way or another their navies have been influenced by the influential geostrategists of the 19th and early 20th centuries representing the Maritime and Continental schools (Tamnes 1991: 22-31). Very briefly their navies have been cast for “command of the sea” and offensive (power projection) naval warfare, (the Maritime School), or defensive (sea denial) operations including defence-in-depth of the “jeune école” tradition (the Continental School).

#### ***The Decline of Naval Globalism***

Since 1985, the maritime strategic concepts governing the operations and deployments of the “world wide” navies—the USN and the Soviet-Russian navies—have changed fundamentally due to the end of global ideological and military superpower confrontation. Yet the naval force structure—the surface fleets, naval aviation, submarine forces and infrastructure built on Cold War assumptions—have remained, albeit in lesser numbers and reduced operational readiness. Significantly the Russian navy's forward presence overseas in the Mediterranean, the Indian Ocean and the South China Sea has disappeared while that of the USN's in the Western Pacific has been reduced with the withdrawal from Subic Bay base in the Philippines in 1992.

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<sup>3</sup> “Change in force structure will not occur quickly, however, for reasons that go beyond the simple one of decades-long ship lives. More permanent perhaps than the steel of ships are their institutional souls, and history shows that these organisational beliefs are not easily changed” (Hegman 1991: 323).

During the Cold War the Maritime School of naval strategy dominated thinking on the containment of the Soviet Union and its allies. The strategic culture of the USN was driven by the ethic of offensive operations as far forward as possible in the Mediterranean, the Northwest Pacific and the Norwegian Sea. Not only did this strategy “take the fight to the enemy” it also provided defence-in-depth to the sea lines of communication (SLOCs) in the North Atlantic, the Mediterranean and the North Pacific. While the allies contributed to the direct defence of the SLOCs, the USN provided heavy striking forces in the Soviet Union's home waters, thereby weakening their formidable submarine force by tying it down or destroying its bases. Although this concept has its origins in the early days of NATO, it was not made public until 1986 in *The Maritime Strategy* by the Chief of Naval Operations, Admiral James Watkins, USN.

The Soviet Navy remained defensive in its thinking and force structure during the Cold War, adhering to centuries-old Tzarist concepts of defence-in-depth and a protective glacis. Continental land-based perceptions dominated the strategic culture of the military leadership. Until the early 1960s the navy was restricted to the direct defence of the homeland against the USN's aircraft carrier groups. It took the humiliation of the Cuban missile crisis to create a substantial blue-water surface force (Lacy 1993: 19). From the mid-1960s to mid-1980s Soviet naval reach and a permanent naval presence were maintained in the Mediterranean in the 1960s and the Indian Ocean and the South China Sea in the 1980s, with periodic deployments on a routine basis to the Caribbean and the West Coast of Africa. In the 1970s the Northern Fleet extended its defensive perimeter into the Norwegian Sea but it could not be sustained. By the mid 1980s, the “Bastion” strategy, protecting its sea-based ballistic missile nuclear deterrent in the Barents Sea and the Sea of Okhotsk, became the primary role of the Soviet navy. The Soviet navy did not build the fleet logistic support or the capability to mount a major amphibious assault against armed opposition during the Cold War. The large carriers of the KUTZNETSOV class might have constituted the core of a “Battle Group,” but the programme was overtaken by the collapse of the Soviet Union in December 1991. At no time during the Cold War did the Soviet navy come near to becoming a “modern offensive seapower” as Admiral Moorer, the USN Chief of Naval Operations, intimated in 1970.

Since 1992, the USN and the Russian navy remain the largest and second-largest, respectively, navies in the world. Today the Russian navy is largely confined to home waters. The USN has replaced the concept of “forward defence,” made up of substantial permanently deployed forces, with “forward presence” in which periodic deployments, rotations and visits are the general rule (Lacy 1993: 62).

The Gulf War against Iraq in 1991-1992 set the tone for the future for both the new USN maritime strategy *From the Sea* (O'Keefe 1992) and coalition type Multinational Naval Force (MNF) operations. In a sense what is evolving is the “internationalisation” of naval operations in a regional setting. As Captain Richard Sharpe, the editor of *Jane's Fighting Ships*, put it, we are witnessing “...the end of great sea battles due to the hibernation of Russia.” It is difficult to define a blue-water role, hence the fashion of joint and combined operations against the land is *de rigueur* (Sharpe 1993: 39).

Coincident with this development, regional powers, who took their cue from the superpowers during the Cold War, will play the leading role in the future. The United States, with the only navy left which can exercise global presence, albeit on a reduced scale, will be less able or willing to intervene unilaterally. At the same time the availability of advanced anti-ship conventional weapons to regional powers who can afford them will increase the risk and costs of traditional forms of “coercive” naval diplomacy.

The geopolitics of maritime security have changed from a global to a regional focus. The exercise of seapower in foreign policy is now conducted in a regional setting. The United States will continue to be a major determinant in the outcome of maritime disputes and conflict in regions where it deems its “national interests” to be challenged. Its navy will be the instrument of choice. During the Cold War, from 1946 to 1989, maritime crises involving the USN in the Mediterranean, the Caribbean, the Western Pacific and the Indian Ocean made up 87 percent of the activity (Lacy 1993: 37).

The decline of naval globalism can be construed as a question of who controls the maritime security agenda. During the Cold War the superpowers called the shot. Today, regional states will determine the level

of escalation which, as long as Russia remains preoccupied, will be dampened or intensified by the intervention of the United States, whether or not it participates unilaterally or under a UN or regional collective security pennant.

### ***The Rise of Regional Naval Power and Influence***

Between 1982 and 1992 warships engaged in hostilities in the Persian Gulf, the South Atlantic, the Indian Ocean, the China Seas, the Caribbean, and the Mediterranean. Naval operations included support to land-air warfare, the destruction of naval coastal forces, amphibious operations, precision strikes against land targets, mine clearance, blockade, the air defence of large naval units and the defence of merchant shipping. Business has been brisk (Sharpe 1992: 47).

The end of the Cold War has loosened the framework of fear imposed by the nuclear balance and the creation of new maritime regimes, stemming from UNCLOS III, has bequeathed vast new areas for coastal states to look after. In the Northwest Pacific the potential for Great Power conflict is reminiscent of the 19th century. As Lord Callaghan (1992) has observed, in Northeast Asia:

The situation resembles the pre-war world with national rivalries and suspicions—China of Japan's economic dominance, Japan of the potential of a future united Korea, a weakened Russia unable to act as a counterweight, and each country wary of the consequences if Chinese nationalist armies were to take over in place of discredited communist regimes.

The situation in the Asia-Pacific Region is complicated by the large number of littoral states and its maritime nature. According to Behm and Soedibyo,

... from a strategic point of view, the ocean and its resources are not a barrier which is to be commanded against one adversary, but an essential element in the make-up of the territory over which the nation exercises sovereignty. The sea, then, is a State asset which is to be defended, not simply exploited in defence of land territory (1990: 10).

The concept of the archipelagic state is fundamental to many nations in the region. As a consequence of UNCLOS III and the increasing exploitation of hydrocarbon resources in the region, the naval role in oceans management is becoming as important as its traditional role of defence of national territory. Naval missions and capabilities of smaller countries, such as the ASEAN states, are being built to carry out Exclusive Economic Zone (EEZ) surveillance and control, maintain public order, monitor resource management, and protect shipping lanes, particularly in the Arabian Sea, the Bay of Bengal, the Straits of Malacca and the China Seas (Mak 1993: 119).

Three regional players—Japan, China and India—and several smaller naval forces constitute a potentially volatile mosaic (Lacy 1993: 73-7). The Japanese Maritime Self-Defence Force (MSDF) is the product of the 20 year National Defense Program outline introduced in 1976 (Morimoto 1994: 172). Its mission has evolved from coastal defence to the extended defence of Japan and its sea lanes out to 1000 nautical miles. Today the MSDF has a broad range of capability tailored to exert sea control in its oceanic approaches and the protection of shipping. Its main equipment is anti-submarine warfare (ASW) surface ships with helicopters, submarine and maritime patrol aircraft. It is not an offensive naval force and is restrained from becoming one by the Japanese Constitution, lingering suspicion from the Second World War by all states in the Western Pacific, and because the striking power to defend Japan is provided in the Japan-US security arrangements from the Cold War. Tokyo is not likely to acquire power projection capabilities in the foreseeable future, although its resource base and technological capacity ensure that it will be a credible, sophisticated naval power.

Since 1985, with the diminishing threat from the Soviet Union, China has adjusted its security policy to:

- focus on economic reforms;
- pursue an independent foreign policy;
- carry out an “active defence” military strategy; and
- participate actively in Asia-Pacific Economic cooperation (Bangquan 1994: 162-8).

The modernization drive of the Peoples Liberation Army (PLA) has lagged behind the other “modernizations” (agriculture, industry, science and technology). However since 1985, defence modernization is picking up. The new force structure is less single service and manpower intensive and concentrates on combined arms and joint warfare and the upgrading of Command, Control, Communications and Intelligence (C<sup>3</sup>I) components (Lee 1989: 40). The naval force posture has moved from sea denial in the North (against the former Soviet Union) to assertion of its territorial claims in the South China Sea and against Taiwan. Relaxation with Moscow has allowed the navy to move from coastal and offshore defence to a “blue-water” navy. The navy has developed a new “offshore defense doctrine” intended to effectively control territorial waters to the 200-mile EEZ. According to the Chinese, this includes the Spratlys, which China claims to be historic Chinese waters, thereby delineating an enormous EEZ (the “Mediterranean” of Southeast Asia) (Lacy 1993: 75). In-flight refuelling has been acquired and plans to acquire an aircraft carrier from Russia (the KUZNETSOV class), have been mooted. These acquisitions will extend the reach of the PLA(N) and provide an “island grabbing” capability.

Indian naval expansion since the mid 1970s has been interpreted as emphasizing power projection by many Western analysts (Lacy 1993: 76). Evidence of this is offered by the intention to acquire a third aircraft carrier (the current two ALBION class carriers are over 45 years old) and the plan to build nuclear-powered submarines (SSN). In fact, the principal mission of India's armed forces has been specified in terms of deterrence rather than force projection (Tellis 1990: 83). China and Pakistan remain the “threat” in India's security beliefs, followed by uneasiness at “extra-regional” intrusions in the Indian Ocean. The deployment of the *USS Enterprise* during the Indo-Pakistan 1971 war was “... the ultimate in symbolic insult and drove India's fear of regional penetration to new heights” (Tellis 1990: 86). Since 1974 Indian naval expansion has been driven by a sea denial deterrence strategy to fill a strategic vacuum in the Indian Ocean. India's maritime strategy is fundamentally continental, emphasizing “defence-in-depth” to seaward—not unlike Tzarist-Soviet-Russian strategic beliefs. India's maritime interests are the defence of sovereign territory, the protection of its vital trade routes, resource management and scientific research in the EEZ, high seas fishing and seabed mining. Its maritime security concerns are to demonstrate credible seapower in the Indian Ocean and to ensure the security of the sea lanes. No Indian naval doctrine to sustain operations outside the Indian Ocean exists, although United States withdrawal from the Western Pacific could increase instability in the area (Subramanian 1993: 202).

Defence planning in the ASEAN states and naval modernization specifically have grown from colonial dependence in the 1960s and 1970s to self-reliance and regional cooperation. Since the 1980s the navies of the Association, with the exception of the Philippines, have improved in quality and reach. They have acquired offshore defence capability in modern corvettes and shipborne helicopters and are expanding into sea lane defence with maritime patrol aircraft and mine-countermeasures vessels (Goldrick 1991: 64). Intra-ASEAN maritime cooperation is growing. For example, joint Malaysian, Singaporean and Indonesian anti-piracy patrols are carried out in the Straits of Malacca. Regional security concerns, especially perceptions of Chinese assertiveness in the South China Sea and the reduction of the US naval presence in the Western Pacific resulted, on 25 July 1993, in the formation of an ASEAN Regional Forum at the foreign ministers level. Membership has been extended to the so-called “dialogue partners” (Australia, Canada, the European Union, Japan, New Zealand, South Korea and the United States) and to five other regional states (China, Russia, Laos, Vietnam and Papua New Guinea) (IISS 1993: 146). The Regional Forum is the first of its kind in the Asia-

Pacific for exchanging views and facilitating dialogue on cooperative security issues in this highly strategic region. The specific security dilemmas that are related to China's role in the South China Sea, may thus be managed within the context of a wider security structure (Buszynski 1994: 110).

In summing up, the global influence of the two remaining world wide navies on the security policies and maritime force postures of the states in the Asia-Pacific region has declined. Only the USN remains a presence with the capability for crisis management and intervention. After the Mediterranean and the Gulf, the Northwest Pacific and Southeast Asian waters will remain a high priority region for the United States. On the other hand, the Western Pacific nations, supported by the United States and Canada, are moving towards regional security arrangements, replacing the bilateral "wheel and spoke" system between the United States and its Western Pacific partners during the Cold War.

The principal navies examined here are at various stages in their 20 year modernization plans. Their fleets and strategies emphasize greater reach and modern sea control weapon systems, with, in the case of the big three, the potential for power projection. However over the next decade only Japan has the maritime tradition and capability to build an offensive naval strike fleet. All of the navies have been built on Cold War assumptions to meet regional security concerns. They are in the lineage of 19th century geostrategic concepts. United Nations guiding principles on cooperative security at reduced levels of armaments appear to have had little impact. Regional and sub-regional balance of power considerations prevail.

### **An Assessment**

This chapter provides some background on changing beliefs and behaviour, as seen by Western intellectuals, on security, brought about by the technologies of nuclear and conventional weapons of terrifying force and accuracy. It looks at maritime security in the context of the new law of the sea, with the rights and obligations this confers on coastal states. Zooming in, the paper traces the changes in the force postures of the "world wide" navies of the United States and Russia since the end of the Cold War, against the growth of "blue water" and "coastal" navies in the Western Pacific and Indian Ocean.

Our observations are that the guiding principles limiting the use of naval seapower in the nuclear age have been directed at nuclear weapons and the naval forces of the "world-wide" navies. The 1985 UNGA *Study* is strong on this point but it also recognized the contribution that naval seapower can make to oceans management to assist smaller coastal and island states to meet their new obligations.

With regard to eliminating nuclear weapons at sea and reducing the level of naval forces, much has been achieved in the ten years since the UNGA *Study*. While this achievement is certainly in line with the stated objectives of the guiding principles related to military forces, it cannot be said that they were reached because of these principles. As is argued in the paper, states will deploy whatever weapons they have at their disposal if they believe that it is in their security interests to do so. The other side of this is that these same weapons may be withdrawn when the security threat is alleviated.

While the naval power of Russia and the United States today is applied less menacingly in the foreign policy role, it remains a latent force of state policy. On the other hand the seapower of the major states in the Western Pacific and Indian Ocean is extending in reach and growing in technological sophistication. We believe this reflects a continuing belief in the anarchical, Hobbesian view of the international system in which fear and the need for armaments usually outweigh the desire to reduce armaments (where that desire exists).

There are nonetheless several areas where treaties and agreements can be effective in reducing tensions and, correspondingly, armaments. The ideological, zero-sum conflict between the superpowers essentially guaranteed continual distrust. For many other states, this need not be the case. Confidence-building measures can help reduce tensions and build trust between them, and this can assist in providing for a better security environment. Even the US and the USSR, for all of their incessantly conflictual relationship, both saw advantages to their INCSEA agreements. As was noted above, CBMs have no effect when states do not wish to build trust and confidence, but they can be very effective for those states who actively desire better relations.

There are also increased opportunities for using navies in “non-traditional,” cooperative roles. These activities, such as counter-piracy patrols, can also work to build trust between states and, moreover, can provide the operational experience to allow them to cooperate in more complex tasks, such as contributing to international naval power in support of peacekeeping, peacemaking, peacebuilding, preventive diplomacy and, failing all else, peace enforcement or war. There is perhaps no greater CBM than combined operations, and building these from relatively simple cooperative taskings has the potential to create a more stable security environment.

Have the guiding principles on limits on seapower that have accumulated in the nuclear age made a difference on how states acquire and use naval power? Of the global, regional and national guidelines that have emerged, the LOS Convention and confidence-building measures ranging from INCSEA arrangements to cooperative international naval operations, stand out. *Reservation for Peaceful Purposes* must be the goal of naval seapower in the nuclear age. We believe that consensus on limiting the technology of seapower is a wasted task. It is the manner in which navies are used that will achieve the goal. Technology should serve as the means of achieving it.

All of the international and bilateral documents relating to the control of military forces, from the UN Charter to the LOS Convention, cannot accomplish their goals solely through their declarations. States (much like individuals) adhere to the law when it is in their own interests, enlightened or other. There have been many changes in much of the world concerning the appropriateness of the use of force in international relations, much of it due to the lessons of the twentieth century, the “century of megadeath” (Brzezinski 1993). It is certainly true that naval officers no longer think in terms of being “... free to go anywhere with every damn thing the navy possesses.” Even in conflict and war there are limits. Naval planners no longer assume unfettered “freedom of the seas.” By codifying much of this thought, the LOS Convention makes a useful contribution to international law. It would be a mistake, however, to assume that the world's problems can be legislated away. The altered security climate of the post-Cold War era is not the result of legal institutions, but of changed strategic realities. It is to this end that efforts at ensuring “reservation for peaceful purposes” must be addressed.

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# COMMAND, COMMUNICATIONS, CONTROL AND INTELLIGENCE: THE PC AND THE INTERNET

## *Contributions to Security and the Agenda for Peace*

*Hugh Williamson*

As part of the *Agenda for Peace*, maritime security has been divided into three broad categories for the purposes of this conference: economic security, environmental security and military security. One has only to examine the various “maritime” conflicts and operations during the past years, fish wars, anti-smuggling operations, pollution combating taskforces, refugee interdictions, to appreciate the following reality of “maritime” security. It includes elements of economic security and environmental security as well.

Today’s concept of naval operations must embrace a complete spectrum of activities, including:

- sovereignty protection,
- assistance to navigation,
- fisheries surveillance and enforcement,
- environmental protection and clean up,
- refugee and immigration interdiction,
- customs and anti-smuggling ,
- search and rescue, and
- policing and law enforcement.

To accomplish this, the scope of maritime “ forces” must include navies, coast guards, search and rescue forces, environmental monitoring and response units, fisheries protection, customs and immigration services, police, navigation and shipping safety bodies, and numerous other organizations from the public as well as the private sector. Government policies on privatization have seen many maritime service functions assumed by private commercial operators.

In addition to the widened scope of maritime operations, a considerable emphasis is now being placed on regional cooperation. There are requirements under the United Nations Convention on the Law of the Sea (LOS Convention) and the United Nations Environment Programme (UNEP)<sup>1</sup>, to name but two, for regional cooperation and coordination, and the establishment and operation of regional centres.

To provide for the effective and efficient management of these functions, navies have relied on command and control systems to ensure the proper implementation of naval policy. In the current western naval jargon, this is referred to as C<sup>3</sup>I, which usually stands for Command, Control, Communication and Intelligence.

C<sup>3</sup>I, in simple terms, is a management system with three major components: data or information, the systems to analyze and communicate relevant information and the personnel, trained to operate and supervise the system.<sup>2</sup> Modern naval and maritime forces require a highly developed C<sup>3</sup>I capability to be able to carry out their tasks. As an added dimension, an additional “C” element should be added, that of co-ordination, to reflect the regional and international dimension of this function.

The requirement for effective and efficient C<sup>3</sup>I does not apply only to the big navies: most major powers have well-equipped militaries that are usually amply endowed with the resources to carry out these

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<sup>1</sup> See generally the various UNEP Regional Seas Programmes and their associated action plans.

<sup>2</sup> D.W. Knight, “The Impact of Technology on Maritime Security: A User’s Perspective,” in Ann L. Griffiths and Peter T. Haydon, eds., *Maritime Forces in Global Security: Proceedings of a Colloquium*, Halifax, N.S.: Dalhousie University, Centre for Foreign Policy Studies, 1995, p. 74.

functions. The problem for the smaller and less affluent countries is how to carry out C<sup>3</sup>I with limited resources. Arguably, it is a greater problem for the smaller states, as the effective use of resources will require much more efficient utilization. The right ship or unit must be at the right place and at the right time.

This situation has been well demonstrated by the situation of the South Pacific island states in their efforts to protect and manage the region's fish stocks, especially tuna, in the face of extensive distant water fishing operations by much larger and economically powerful countries. The situation of these small island states is probably better understood when one realizes that there are 22 separate countries or administrative territories in the region, with a population of about six million (four million are in one single country, Papua New Guinea), covering a total of 30 million square km of sea area (EEZ, Archipelagic, and Territorial Seas). Many of these states have only a single maritime patrol craft, and a few have none at all. As a result, the region established a regional body, the South Pacific Forum Fisheries Agency, to coordinate management of the distant water tuna fishing. A study of the work of Forum Fisheries Agency (FFA) will reveal a number of highly innovative and quite effective regional practices to facilitate this task.<sup>3</sup> A number of regional treaties and agreements were entered into, programmes were initiated and co-ordinating mechanisms established. Throughout all of this, however, the communications and intelligence (information) functions remained problematic. One thing which has emerged is the considerable reliance on small computer systems, especially the ubiquitous personal computer (PC), as a major working tool for the region's management activities.

One of the hallmarks of the Information Age is the pervasiveness of the small computer system, with the PC-based micro computer being the most common. These systems already provide much of the C<sup>3</sup>I system support as they are the major provider of the following services:

- document, letter, and message production (word processing and text editing programmes);
- data base production and storage (data base programmes);
- data analysis (spread sheet and statistical analysis programmes);
- project planning (management programmes); and
- decision analysis (modeling and simulation programmes);

and now, increasingly with the addition of a modem, which permits PC's to link functions over telephone lines with other computer systems:

- information transmission (e-mail and faxing programmes);
- data exchange (communications programmes); and
- information location and retrieval (network access programmes).

It is in the latter area, of computer networking, that much of the potential for effective and low cost C<sup>3</sup>I may be realized. But two major points need to be recognized.

1. Computer Access Networks, often referred to as the "Information Highway" or the "Internet" is the fastest growing area in computer systems, media communications and information technology.

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<sup>3</sup> See generally, David J. Douman, ed., *The Development of the Tuna Industry in the Pacific Island Region. An Analysis of Options*, Honolulu: East West Center, 1987.

2. Access to these networks is limited, or often non-existent in many non-OECD<sup>4</sup> countries and regions of the world.

An analogous situation occurred in the field of multi-modal transportation with the development of the unitized container system starting in the 1960s. While the system promoted greater efficiency in general cargo handling, the adaptation of the system required extensive investment in the equipment and infrastructure necessary to handle the containers. Countries without the necessary facilities found themselves marginalized as non-container “friendly” ships and port services increasingly disappeared.

The same situation now exists in the information technology sector. Many countries have neither the technology nor the infrastructure to utilize networked information, and are being left behind. This chapter is a case in point for computer networks. Much of the information was derived from “on-line” sources, and never appears in conventional paper form. It is available world-wide, but only if you have access to Internet sources.

There are a number of developments and initiatives to improve access and assist non-OECD countries to take advantage of these new developments. However, without the support and understanding of governments in the regions, these efforts will be of limited success. If these governments develop and implement a policy for utilizing these resources for their operations, and improve the availability to their communities as a whole, then many of these problems and deficiencies can be overcome.

For the rest of this chapter, I propose to briefly examine the place of the PC, and various computer networks, in implementing C<sup>3</sup>I, especially as it affects the situation of non-OECD countries and small island states. This will examine some of the existing systems and technologies, especially those which are low cost and relatively simple to implement and operate. Also, I will look at the situation of computer networking, especially the Internet, as part of this system.

### **PC-Based C<sup>3</sup>I**

C<sup>3</sup>I is a management issue. Management in the naval sense is really not much different from management in business or politics, though the consequences might be more visible and forceful: a nuclear explosion for instance. Management in its simplest form is just decision making. What makes for good management is simply making the right decision, and the right decision is one which is effective, efficient, and appropriate to the circumstances. As a process, it means getting the right information, analyzing it and drawing the right conclusion, and then using this to put the right response into effect. It is the function of C<sup>3</sup>I to get the information to the decision-maker, achieve a decision, and then put it into effect. What complicates this situation is the spatial dimension. The fact is that, quite often, the elements are geographically separated: and that is where the communication aspect comes in.

### **Communications**

There are a number of terms for the same process, such as communications, data transfer, and information retrieval. What they all mean is the movement of information. It is not my intention to go into a major discussion of telecommunications, and compare the relative merits of radio vs. land lines vs. satellite. However, if we discount the postal system, the telephone is the most widely available communications system.

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<sup>4</sup> The term “non-OECD” (Organization for Economic Cooperation and Development) will be used to describe what have been variously referred to as Developing Countries, LDCs, etc. For practical purposes, OECD countries include Western European industrial countries, Canada, the USA, Australia, New Zealand, and Japan. Since these countries have the best developed computer network access capacity, they represent the standard for the rest of the world.

It is common within the management bureaucracy of government, private industry and private residences. As we will see later, the Internet and other computer networks will probably continue as an augmentation of the telephone system, using phone lines as their major conduit.

The major requirement of a C<sup>3</sup>I communications system is that it must be effective. Ideally it should have the following attributes:

- It should be reliable. Communications should be available when and where it is required.
- It should be efficient. It should allow for rapid, and cost effective delivery of information.
- It should be secure. It should limit access to the information to the intended recipients.

There are several methods by which data can be communicated between PC systems.

**Indirect Transfer:** Information can be communicated by printing a paper “hard copy” and delivering it directly (courier or mail) to the recipient, or by faxing the information. While these options can be made extremely secure, they are inefficient, and the information would have to be mechanically entered into the receiving system. The same information could be placed in digital form on a magnetic computer disk (floppy disk) and the disk physically transported to the recipient system. This would overcome the inefficiency of entering the data into the system, but the problem of delay in the delivery of the information would still depend on the speed of the postal or courier system.

**Direct Transfer (local):** The information can be communicated directly between computers by linking the two systems together. If the computers are located in close physical proximity, this can be accomplished by hard wiring them into a local area network (LAN). Data transfer in this mode can be extremely rapid, with the equivalent of thousands of pages of data being transferred in seconds or minutes. The disadvantage of this form of connection is that the distances involved must be fairly short, within the confines of a building or complexes. Security on a LAN can be fairly high as access can be limited to those PC’s which are physically connected.

**Direct Transfer (Telephone):** By connecting a modem<sup>5</sup> to a PC, and connecting the modem to the local telephone system it is possible to link to another similarly configured PC located virtually anywhere in the world. Once the two PCs are telephone linked, it is possible to pass messages or exchange data and other computer files directly between the two machines. Since use is being made of existing telephone circuitry, the cost of the data exchange will be the cost of the telephone transactions. If the PCs are located in different countries or regions, this cost will be the long distance charges which apply and are usually the same as is charged for a voice communication of the same duration. One important factor will be the speed at which the PCs are able to exchange data. This will be determined by the type of equipment, and the carrying capacity of the telephone circuits. As a general rule, poor voice circuits will also be poor data circuits.<sup>6</sup> Many telephone lines in non-OECD

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<sup>5</sup> Modem: Modulator/demodulator: a device which translates computer data or binary information into sound, which can be transmitted over telephone or other voice communication circuits.

<sup>6</sup> Modem speeds are generally measured in BPS (bits per second). Modem speeds are increasing dramatically and exponentially, while the cost of units are dropping. In the late 1980’s, the maximum modem speed was 1,200 BPS and the cost was in excess of US\$500. Currently, 28,800 BPS units are available at a cost of several hundred dollars: 14,400 BPS units can be obtained for less than \$100. The most expensive units available in 1995 have a speed of 56,000

countries are incapable of handling reliable local data transfer at more than 1,200 BPS,<sup>7</sup> even though the modem units themselves are capable of operating at more than ten times that rate. The level of security and reliability is usually moderately high, equal to the reliability and security of the telephone system as a whole in the country in question.

**Direct Transfer (Wide Area Networks):** The advent of the globally-linked computer networks, of which the Internet is probably the best known, has radically changed the way in which data is exchanged in the OECD countries, and many of the non-OECD states as well. Since the Internet was intended to handle data interchange between large main-frame computers, belonging to research institutes, governments, universities, large companies, etc., the reliability and speed of these networks can far exceed what is usually possible over direct PC to PC transfer. The large mainframe computers which make up the Internet (called nodes or hosts) are usually permanently connected to each other by high capacity leased telephone lines. PCs connect to the Internet by connecting to the nearest convenient node, or Internet connected mainframe. This may be done by establishing a continuous connection of the PC or LAN to the node, or by temporarily connecting the PC to the mainframe over the telephone, using a modem. This usually reduces the direct communications cost to the charges incurred for that telephone connection. If the node can be reached by a local telephone connection, the costs will be low. If it requires a long distance connection, the costs will increase according to the time spent "on-line." Reliability and efficiency of Internet connections can be high, but the security factor is quite low, especially if data is unencrypted.

**Table 1: PC to PC Communications Systems**

	<i>Reliability</i>	<i>Efficiency Speed/cost</i>	<i>Security</i>
Indirect	High	Slow / low	High
Direct (LAN)	High	Fast / moderate	High
Direct (Modem): OECD Non-OECD	Moderate	Fast / moderate Slow / high	High
Direct (WAN)	Bomb Proof?	High / low	Low (high with data encryption )

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BPS. Many on-line computer service providers have discontinued service at the lower standard speeds of 300, 1200, 2400, and 9600 BPS. In most OECD countries you cant give away an older slow speed modem, as the cost of a high speed unit can be recovered very quickly in savings on telephone costs, especially long distance charges.

<sup>7</sup> International communications standards for speed are 300, 1200, 2400, 4800, 9600, 14,400, 28,800, 56,000 baud.

### **PC-C<sup>3</sup>I Communications Requirements**

Before looking at the systems which are available, it would be useful to consider the types of information which would be required.

- Messages (human to human): operational decisions, situational reports, advice and opinion, and administrative matters;
- Data base information: data input to central data bases, data queries from central data bases, shared data for local data bases;
- Documentation: large textual, or mixed textual and graphics files for reference purposes;
- Graphics: pictorial representations of objects or situational displays (satellite photos, charts, maps etc.); and
- Operational instructions: direct control of remote systems and equipment.

Within the C<sup>3</sup>I environment there will be a varying requirement for security, and immediacy of communications, something familiar to most military components, but not as evident for many of the other sectors. Any coordination function will require extremely flexible systems, to allow for an efficient linking of the different components. Ships will have to be in contact with their own headquarters (HQ), and possibly other headquarters as well. National headquarters will have to communicate with other sector HQs, as well as those of other countries on a regional or global basis.

### **PC -C<sup>3</sup>I: Available Communications Systems and Technologies**

It often makes practical and economic sense to adapt and utilize already existing systems, rather than to obtain and establish an entirely new system. Within the context of national and regional security, one can usually count on the various bureaucracies and offices having several common systems in place: telephones, usually with facsimile capabilities, and PCs. Within the field of maritime security the situation is complicated by the fact that telephone lines, while they extend under the sea, do not extend to the ships on the sea. Fortunately, the advent of the communications satellite is effectively changing this situation, albeit at a higher cost for equipment and operation. However, current technological developments are making this less of a factor. Specifically, the advent of the newer INMARSAT services are making it an obvious component for C<sup>3</sup>I.

#### ***INMARSAT***

INMARSAT (the International Maritime Satellite Organization) was established under the auspices of the United Nations International Maritime Organization (IMO) to provide satellite telecommunication to the marine transportation industry. Specifically, it was set up to provide reliable ship-to-shore and ship-to-ship communications by means of geostationary telecommunications satellites. Initially established in the 1970s, INMARSAT is a partnership organization of over 75 countries, with four satellites, two located over the Atlantic ocean, and one each over the Indian and Pacific oceans. Member countries have ground communications stations, called coastal earth stations (CES), which are connected into the local telephone networks. Ships may be equipped with an INMARSAT satellite transceiver called a Ship Earth Station (SES). The system acts as a marine extension of the international telephone system. Parties may use their telephone



to dial up ships at sea. Ships may initiate calls to any accessible shore telephone and communicate by any of the conventional means: voice, fax, telex, data, or electronic mail (e-mail). The INMARSAT system has recently been extended to commercial aircraft on transoceanic flights, and is also being utilized by scientific research teams in remote geographical areas.

In 1991, INMARSAT-C, a low cost, human transportable system was introduced. This system handles messages by the Store and Forward method, a procedure where messages are prepared and forwarded, with delays of several minutes before the data is received. This delay makes voice communication difficult, and INMARSAT-C can only handle data transmission at the present time. This does, however make it a suitable vehicle for e-mail communication.<sup>8</sup>

**Table 2: INMARSAT Systems**

<i>INMARSAT Type</i>	<i>Antenna Size</i>	<i>Data Speed</i>	<i>Supported Telecommunications</i>
A-analogue	large -100kg	56kBPS	Fax, voice, data, GMDSS
B-digital	large-100kg	64kBPS	Fax, voice, data, GMDSS
M-digital	medium-20kg	64kBPS	Fax, voice, data
C-digital	small-7kg	600BPS- store & forward	Data, GMDSS

### *PC to PC Direct (Modem) Communications*

Using non-network, or direct PC-to-PC communication has limited utility in a C<sup>3</sup>I environment. It would be used primarily for the transfer of data at the request of one of the parties. Usually, this form of communications is non-automated, the computer equivalent of manually transferring and receiving data files over the telephone lines. For data of extreme importance, and occasional nature, this is a safe way of ensuring that the data is sent and received in good order. However, it requires the presence of human operators to handle each end of the transaction. Reliability suffers as the system can only be activated when there is someone physically present at the other end to activate the system. As well, the telephone cost of the communications are borne by the party initiating the call.

### *PC- Networks*

#### *Private Networks*

Private networks are relatively easy to establish. All one requires is a PC-based system and modem, and an agreement with the other parties involved on how the communications will be handled. On larger private networks, usually one PC is dedicated to handling network communications, so that it will always be free to

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<sup>8</sup> For a detailed discussion of INMARSAT see, *INMARSAT Maritime Communications Handbook* (Issue 2), London: International Maritime Satellite Organization, 1995.

transmit or receive data. Numerous software packages and programmes are available, many at low or no cost, which allow for totally automated, and regularly scheduled message and data handling (called polling). Systems can also be set up to allow call-in access to central data bases, using what is referred to as Bulletin Board Software (BBS). These systems allow access on an open or restricted (password controlled) basis, and allow callers to drop off or receive messages, search through data files, and transfer data files to and from their own computers (called uploading and downloading).

Private networks have the following advantages of operation:

- they can restrict access, and control levels of security; and
- they can be totally dedicated to single functions, without sharing resources with other users.

Some disadvantages are:

- communications costs may be high, especially if long distance charges apply;
- communications are limited to bodies in direct contact with the network, unless the network is "gatewayed" to other networks;
- simultaneous access will be limited to the number of telephone lines, and modems attached to each PC system; and
- communications are delivered only when the recipient polls, or contacts the individual network controlling PC.

### *FIDONET*

FIDONET is the computer-network equivalent of the amateur (HAM) radio organization. Established in 1984, it is a global network of over 5,000 small computer BBS operators who provide mutual support in the handling and dissemination of electronic mail, on a world-wide basis. The system is self-financing, with individual operators paying their own costs for equipment and communications.

In a nutshell, FIDONET divides the world up into zones (North America, Europe, Africa, etc.). Zones are divided into regions and regions into nodes, with controllers at each level.<sup>9</sup> Individual member BBS systems will poll their respective nodes and exchange incoming and outgoing messages. These will be passed on by the nodes polling the regional controllers, and the regional controllers polling the zone controllers. The zone controllers then poll each other and exchange messages. Message handling software handles the distribution, depending on the e-mail address of the intended recipient. The speed with which a message will reach its recipient will depend on the scheduling of the polling. Typically the nodes, regions and zones poll at least once a day, depending on traffic. However, individual BBSs may only poll intermittently. Since the network is largely self-financing, access will depend on what the individual members charge for access, though this is typically quite low. The major expense is the telephone charges, and these can be quite high at the region and zone levels, since these require international telephone connections.

FIDONET offers several distinct advantages:

- FIDONET is gatewayed into the Internet, allowing messages to be passed into all the major world networks, academic, government and private.
- FIDONET is fairly simple and requires minimum investment.

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<sup>9</sup> See, POLICY4.TXT, available at WAIS fidonet-nodelist.src, or David.Dodell@f15.n114.z1.fidonet.org

- FIDONET is usually the first, and still in many cases, the only e-mail access into many non-OECD countries, notably sub-Saharan Africa, and parts of Asia and the Pacific.

FIDONET's major disadvantages are:

- messages tend to travel slowly, and may take many hours, or even days to reach the recipient.
- messages are limited in size to a few Kb (several page equivalents). Large data files would quickly overload the system, and would be unwelcome.

### *Internet*

The Internet, more properly INTERNET PROTOCOL, is an informal agreement between a large number of independent large computer operators, on how they will handle communications between their various systems. It originated in a US Defence Department computer network called ARPAnet. ARPAnet's major function was to support research into establishing defence networks which could withstand attack by hostile forces. It was determined that the best way to ensure survivability was to have a network without a central controlling hub, designed like a spider web, so that destruction of part of the net would not affect the other parts.

To establish this, instead of having central control, the various components all agree to exchange data following specific standards, called protocols. The most important of these is the TCP/IP or Transmission Control Protocol/ Internet Protocol, which determines how data will be transferred between systems. Individual computers, virtually all main-frames, are interconnected by permanently leased high capacity telephone lines. Information is passed from one computer to the next following the most convenient path available at the time. Individual computer operators, usually universities, governments, public and private utilities, and private companies provide a variety of services and charge according to their own schedule.

Depending on the level of access which the individual computer system wishes to offer, the following services are available.

**SMTP-Simple Mail Transfer Protocol:** This is electronic mail or e-mail, and is an electronic message which is addressed to specific users at specific computer sites. Messages may be restricted in size, though this can be quite large (several hundreds of pages of text). The contents of the message is restricted to ASCII characters, which are essentially numbers and the Latin alphabet. Message delivery time, computer to computer, can be extremely short, seconds to a couple of minutes even for messages travelling world-wide. Binary computer files such as programmes, graphics, or formatted word processing and document files cannot be sent directly by e-mail. Programmes are available which will translate binary files into ASCII, and attach them to e-mail messages, to be decoded at the recipients end. These encoded files will be typically 50 percent bigger than the original binary file.

**IRC-Internet Relay Chat:** This is an interactive mail-like service which permits users at different locations on the net to chat back and forth. The usefulness of this form of communication will depend on the time it takes the network to deliver the messages, typically the same time as it would take to deliver e-mail. Delays of any more than a few seconds make for an inefficient exchange of thoughts.

**FTP-File Transfer Protocol:** This facility allows a user to connect directly to a remote computer, located elsewhere on the Internet, and upload or download files, binary or ASCII, directly between computers. This is a convenient way for moving large data files, or large documents. Special facilities exist on most systems for initiating catalogue searches of remote systems looking for files or data on a particular subject. FTP access can be free and open or controlled.

### *TELNET*

This facility allows the user to connect directly to a remote computer, and operate the system to the same extent possible if the same user were physically present on the remote system. If an individual has the appropriate access to a computer system on the Internet, that access can be exercised from any other computer present on the net. This facility is most useful in accessing data base and programme specific functions, and allows for a centralized data storage function, with multiple remote access possibilities.

### *WWW-World Wide Web*

This is one of the newest functions of the Internet. It is essentially a combination of most of the previous functions, with the addition of multi-media sound and graphics capability. It allows for rapid and systematic information search and display from a variety of sources around the "WEB," as this particular form of Internet access is called. Web access is the most rapidly growing area of Internet usage at the present time. It has great potential for C<sup>3</sup>I utilization, but this is currently extremely underdeveloped. The major disadvantage to the Web, especially in its full-blown multi-media form is that it requires the transmission of very large amounts of data, especially for graphics or picture display. Web sessions will typically transfer MEGABYTES (millions of bytes of binary data). This requires access using very high speed modems, 14,400 or better, considerably beyond the present capacity of most non-OECD telephone networks. Web sources are known as "pages", and utilize a protocol known as "Hypertext" to control access to different computer sites and data files.

In general, there are considerable advantages to utilizing the Internet for C<sup>3</sup>I, especially from the perspective of establishing regional co-ordinating activities in the field of maritime security.

- The Internet is well established, and provides many existing gateways and connections to multiple organizations on national regional, and global levels.
- The Internet is capable of handling text and binary data format, in a timely manner, and at relatively low cost.
- The Internet will continue to develop additional capabilities.
- Like the telephone, no organization, government or bureaucracy will be able to avoid the necessity of being linked into the Internet, as it is becoming a major communications medium, perhaps *the* major communications medium.

The disadvantages to the Internet are:

- The system has wide open accessibility, making security a major problem. Special precautions must be taken to safeguard data and prevent unauthorized access. Systems will have to be safeguarded or "firewalled" against intrusion. Data transmissions will have to be encrypted to prevent unauthorized disclosure.
- Since it is a shared system, and shared on a global basis, it may be vulnerable to sabotage from within, or subject to overloads by other users.

### **The Association for Progressive Computing (APC)**

To quote their own on-line sources,

APC is the most extensive global computer network in the world dedicated specifically to serving non-governmental organizations (NGOs) and citizen activists working for social change.

Composed of a consortium of international member networks, APC provides effective and efficient communications and information-sharing tools to NGOs and individuals. Member networks exchange e-mail and selected electronic conferences with over 50 partner networks world-wide. Many of these partner networks provide the only e-mail access for NGOs in their countries. Through this global partnership, APC offers vital links of communication to tens of thousands NGOs, activists, educators, policy-makers, and community leaders in 133 countries.

APC member networks share a common mission: to develop and maintain the informational system that allows for geographically dispersed groups who are working for social and environmental change to coordinate activities on-line at a much cheaper rate than can be done by fax, telephone, or for-profit computer networks. APC is committed to making these tools available to people from all regions in the world.<sup>10</sup>

The APC has been a major presence in international computer networking for a number of years. It is actively involved in social and environmental issues, and has initiated a number of programmes to help improve international computer access. As a means of information dissemination, APC's assistance at recent UN conferences is unsurpassed. Documents, press releases, statements, and resolutions which are tabled at the conferences are collected, reduced to electronic format, and dispatched around the world within hours. In many cases, this was the only access which individuals in the non-OECD countries could get to these important documents.

APC has assisted in many countries with the establishment of local networks, and the connection of these networks to the Internet. APC's support is invaluable to regional NGOs. It has also worked with various UN agencies, and some regional inter-governmental organizations in establishing networks.

One major effort, by Pegasus Network, the Australian member, was the establishment of PACTOK, a network for Pacific Island countries.<sup>11</sup> This project, funded by the Australian International Development Assistance Bureau (AIDAB), was of limited success. While the software and training were provided at no cost to the participant organizations, the network was coordinated out of Australia, and many of the local Island organizations could not afford the long distance phone charges incurred in polling the Australian node to exchange e-mail.

### ***Communications Security***

It is probably worth briefly discussing the issue of data and system security. Though these are a major factor in C<sup>3</sup>I, the problem is not insurmountable, and in actual fact can be moderately easily controlled, especially in light of several recent developments in PC security programmes.

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<sup>10</sup> See Appendix 2, *infra*.

<sup>11</sup> See Robert Garnsey, PACTOK Manual and User Guide, PACTOK, 1991 from INTERNET: [pactok@peg.apc.org](mailto:pactok@peg.apc.org).

### *Firewalling*

A firewall is any one of several ways of protecting one network from another untrusted network. The actual mechanism whereby this is accomplished varies widely, but in principle, the firewall can consist of a pair of mechanisms; one which exists to block traffic, and the other which exists to permit traffic. Some firewalls place a greater emphasis on blocking traffic, while others emphasize permitting traffic.<sup>12</sup> Firewall technology can be utilized fairly effectively to prevent unauthorized access. However, it is not an anti-computer virus protection system. Firewalls and anti-virus procedures would be a necessary part of an effective C<sup>3</sup>I system.

### *Data and Message Security and Encryption*

An equally serious problem, especially if C<sup>3</sup>I is implemented over the Internet or other open access networks, is the problem of confidentiality of data and message traffic. Fortunately, a number of data encryption programmes exist and are widely available and are deemed to be fairly effective against all but the most professional of interceptions. Two are widely available and worthy of special mention.

#### *PKZIP*

The primary function of this programme is to compress the data in a file and reduce the size of the file for more efficient storage or transmission. Since a ZIPPED file can be reduced to 50 percent or less of the original file size, this may generate a considerable saving in time and money where the file is being transmitted over telephone circuits or the Internet. There is a provision in the programme for adding a password to the compression process, requiring the same password to decompress the file at the other end. This should probably be adopted as a standard security procedure for the compression and transmission of any sensitive data file.

#### *PGP (Pretty Good Privacy)*

PGP is a two-part key encryption programme with an interesting history. The programme itself is publicly and internationally available from a number of sources, free of charge, though there are some licensing fees involved. The programme itself was developed to allow for rapid, easy and secure encryption of electronic mail. Using the programme, an individual develops two encryption keys. A private key, known only to the individual, and a public key, which can be widely published and distributed. Anyone wishing to send an encrypted message to an individual, uses that individual's public key, and the PGP programme to encrypt the message. The resulting encrypted message, which is in ASCII format, can then be transmitted by e-mail, but only decoded using the private key. The public key cannot be used for the decryption; it only works one way.

The cipher is reputed to be virtually unbreakable, even by government intelligence agencies: so much so, that the developer is currently under indictment by the United States Government for illegally exporting cryptographic material. The crime he committed is that, after developing PGP, he placed the programme in a publicly accessible site on the Internet, and invited people to use it. It was quickly transferred to mirror sites

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<sup>12</sup> See Firewalls FAQ (Rev 4, updated Fri May 5 11:19:48 1995, posted to USENET: comp.answers; news.answers.

around the world. It is currently, freely, and usually legally available in most countries on the Internet. However, any attempt to obtain it from a US source would be a violation of US law.<sup>13</sup>

### **PC-C<sup>3</sup>I: Intelligence/ Information**

Intelligence or Information, the "I" in C<sup>3</sup>I, is the critical factor in effective decision-making. Without good information, good analysis is not possible, and without good analysis, good decisions are not possible. Access to information is crucial. Increasingly, information is being made available on the Internet. Data bases are accessible by direct dial-up or TELNET. Data files can be obtained by FTP, or direct downloading. The modern C<sup>3</sup>I operator must be able to locate and access these sources of information quickly and effectively.

The situation for the non-OECD countries is being complicated by the fact that not only have they not traditionally had the advanced technology to generate much of the primary data, but they now are often behind in the technology necessary to access the available information which is readily accessible to their OECD counterparts. Satellite telemetry, oceanographic data, even the card catalogue of the Library of Congress are available on the Internet, on-line ... but only if the technology is present to access it.

Fortunately, much of this information can be accessed through the most basic internet function: SMTP, or electronic mail. It is slower, and non interactive, but accessible nonetheless. However, a modern C<sup>3</sup>I system must incorporate the newer developments, especially access to the World Wide Web, as this is increasingly the place where the information resides, and the means by which it will be accessed. By way of example, the following sources of information are available.

#### *FAQ's-Frequently Asked Questions*

One of the subsidiary services with a high information value within the Internet is USENET. USENET is a collection of several thousand widely but not uniformly distributed "conferences." A conference is a topic area, called a newsgroup, and may be moderated or unmoderated, depending on whether there is a moderator who controls which items or responses can be posted to a particular topic. Typically, someone starts a topic on a given subject, and posts their comments. This is then automatically echoed to all Internet sites around the world which are copying that particular newsgroup. Anyone at any of these sites can respond to the topic, by posting their comments, which are in turn echoed to all the sites as well. This forms a thread. Needless to say, especially in the unmoderated newsgroups, the "signal to noise" ratio can be very high, as anyone is free to post an opinion, short or lengthy.

There are some excellent sources of information in newsgroups, however, among the best being the FAQ's. These are electronically published documents, sometimes running to hundreds of pages, which can provide detailed information of a particular subject, generally the main theme of the USENET newsgroup. They are useful as primary reference sources, and also usually contain information on how to access additional information, including files and data bases on the topic. While the quality varies, it can often be extremely high, and extremely current. FAQ's are updated regularly, often monthly.

The best place to find FAQ's is in the "answers" newsgroups: sci.answers for science topics, comp.answers for computer topics, and news.answers for general topics.

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<sup>13</sup> See PGP Frequently Asked Questions with Answers (parts 1,2,3), dates 23 April 1995 04:37:17 posted to USENET:comp.answers, news.answers.

### *Satellite Image Data*

Currently, the image catalogues, as well as some of the satellite photographs themselves are available on-line. Images can be ordered from French (SPOT), Russian (Okean-O), US, and other sources.<sup>14</sup>

### *Oceanic Information*

The University of Delaware's College of Marine Studies data base can be accessed by: TELNET: delocn.udel.edu login: info. This source has information on the World Oceanic Circulation Experiment (WOCE) and other marine related data bases.

The US Naval Observatory Automated Data Service can be accessed by: TELNET: tycho.usno.navy.mil login: ads. This source has astronomical data, navigational satellite positioning and some software utilities, as well as a variety of data bases.

There is an increasingly wide variety of other sources of information available as well. Hundreds of electronically published journals and newsletters, over 6,000 electronic mailing lists on specific topics, even electronic advertising. However to assess or even be aware of these facilities, one must be "on the NET."

### **Conclusion**

There is an increasing opportunity for countries and regional organizations to develop or augment their C<sup>3</sup>I capabilities, by taking advantage of the newer data communications technologies. It is inevitable that organizations be accessible from, and have access to the Internet, as they must be accessible by phone or fax. INMARSAT-C now makes small ships and mobile craft internet accessible as well. By cooperating with academic institutions, research bodies, other government departments, and private organizations, low cost and reliable access to the Internet can be provided and shared by the country and even entire regions as a whole. Proper planning and procedures can eliminate many of the problems which are associated with net use. The resulting improvements in C<sup>3</sup>I capabilities can dramatically increase the effectiveness of the maritime surveillance and enforcement role, and promote greater security on a national and regional basis.

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<sup>14</sup> See generally, Nick Kew, Satellite-Imagery FAQ dated 17 November 1995 posted to USENET:sci.answers.



## **APPENDIX 1**

Due to the nature of the topic, and the source of much of the material (the Internet), there has been a considerable amount of difficulty in establishing a bibliographic standard for citing sources which are originally published on the Internet itself, often without appearing in conventional paper-printed form. While there is no doubt that the material is covered by copyright, and can usually be attributable to its author, conventional rules of citation may have to apply.

For purpose of clarity, and to aid readers who might wish to obtain the original sources themselves, I have chosen the following style for citation.

TITLE; Author, date of publication, Internet Source Identifier

Internet Source Identifier

1-Conferencing Service- CompuServe, WELL etc.

2-SMTP- e-mail address

3-FTP-File Transfer Protocol: address, directory and file name

4-TELNET: Host Address

5-WWW: Hypertext Transfer Protocol Uniform Resource Locator (URL)

## **APPENDIX 2**

### **The Association For Progressive Computing**

#### **What Makes APC Unique?**

The APC Networks are distinguished by the depth and quality of their information resources, by the global reach of their communication services, and by the diversity of their membership. APC developed from a dedicated grass-roots constituency and has become a true global community. The Network provides information in several languages, including Spanish, Portuguese, Estonian, Serbian, Macedonian, Bosnian, Croatian, Slovenian, Russian, English, Swedish, German, Polish, French, and Esperanto. In addition, APC provides extensive user support and training to help people access the system easily and learn to use it efficiently.

#### **Bridging The Information Gap**

##### *Between North and South*

APC is committed to reducing the gap between the information-poor and the information-rich. Towards this end, Southern and Northern members of APC regularly exchange information and technical expertise. As well, APC members collaborate with over fifty partner systems in Southern countries, increasing information flow between South and South.

##### *Between Men and Women*

To redress the gender gap in the use of computer technology, APC initiated a Women's Networking Support Program. This initiative focuses on increasing access to networking technologies and information sources for women and women's NGOs.

##### *Both the United Nations Secretariat for the Fourth World*

The Conference on Women and the NGO Forum on Women have endorsed and are working closely with APC as a communications and information-sharing provider in preparation for and during the World Conference in Beijing, China, in September 1995.

#### **History of APC (p. 1 of 3)**

[IMAGE]

Between 1982 and 1987 several independent, national, non-profit computer networks emerged as viable information and communication resources. In 1987, GreenNet in England began collaborating with the Institute for Global Communications (IGC), which operates PeaceNet, EcoNet, ConflictNet, and LaborNet in the United States. These two networks started sharing their electronic conference material and demonstrated that trans-national electronic communications could serve international, as well as domestic, communities working for peace, human rights and the environment.

This innovation proved so successful that by late 1989, networks in Sweden (NordNet), Canada (Web), Brazil (AlterNex), Nicaragua (Nicarao), and Australia (Pegasus) were exchanging information with each other and

with IGC and GreenNet. In the spring of 1990, the Association for Progressive Communications (APC) was founded to coordinate the operation and development of this emerging global network.

As of August 1995, the APC has eighteen member networks, serving over 31,000 activists, educators, non-profit and non-governmental organizations (NGOs) in over 133 countries. APC also exchanges e-mail and selected conferences with 38 partner networks world-wide, many of which are expected to become full APC members in the future.

APC member networks pay a percentage of their income to the APC Secretariat to diversify the growth of the Association.

#### **APC Co-ordinating Council - August 1995**

Carlos AfonsoAlterNexBrasil Carlos AlvarezWamaniArgentina Roberto  
BissioChasqueUruguay Julian CasasbuenasColNodoColombia Karin  
DelgadilloEcuanexEcuador Andriy DemydenkoGLUKUkraine Jacques  
LefevreLaNetaMexico Bo EngborgNordNetSweden Anriette  
EsterhuysenSangoNetSouth Africa Stefan HackenthalComLinkGermany Boris  
HorvatHistriaSlovenija Robert HuntPlaNetNew Zealand Karen  
BanksGreenNetEngland Kirk RobertsWebCanada Geoff SearsIGCUnited States  
Anatoly VoronovGlasNetRussia Paul WilsonPegasusAustralia

[IMAGE]

The APC Networks are designed for use by NGOs, other types of not-for-profit citizen-based organizations, and individuals who communicate with NGOs. These include United Nations agencies, research organizations; and individuals who communicate with NGOs, government departments, educational institutions, multi-stockholder groups and activists. People use APC as an information and organizing tool for a wide range of issues. These include:

PeaceLabour Movement Human RightsPublic Health EnvironmentalIssuesPopulation Social  
& Economic JusticeDevelopment EducationPovertyIndigenous RightsNonviolence Women's  
EmpowermentDemilitarization

Currently, APC has member networks in 19 countries and provides access to over 28,000 progressive activists and organizations through partner networks and local hosts in 133 countries.

#### **APC and the United Nations (p. 1 of 2)**

[IMAGE]

APC has been instrumental in forging communication links between NGOs and the United Nations. In 1992, APC served as the primary provider of telecommunications for NGOs and UN delegates during the preparatory process and on-site at the Earth Summit (UNCED) in Rio de Janeiro, Brazil. This effort established computer networking as a powerful mechanism for better integrating NGOs into all aspects of United Nations conferences from preparation to follow-up. To provide continued access to UN events, APC has directed similar initiatives at the:

- \* 1993 United Nations Conference on Human Rights in Vienna, Austria
- \* 1994 International Conference on Population and Development in Cairo, Egypt
- \* 1995 World Summit on Social Development in Copenhagen, Denmark
- \* 1995 Climate Conference of the Parties to the Climate Convention in Berlin, Germany
- \* 1995 Fourth World Conference on Women in Beijing, China

Throughout the year, APC works closely with several United Nations agencies to make them and their information more accessible to NGOs. APC has recently been granted Consultative Status, Category 1, to the United Nations.

[IMAGE]

### **APC And The Internet**

APC provides full connectivity to the Internet. All APC member networks provide users with an Internet e-mail address. APC users can communicate with any of the over 40 million people who have an Internet e-mail address; as well as with most commercial, academic and other networks.

Many APC networks provide navigational tools to help their users access information that is otherwise difficult to locate on the Internet. For example, through the TELNET command, users can access any public computer on the Internet, including universities, libraries, research institutions, and public data bases. Several APC networks make information publicly available on the Internet via the World Wide Web (WWW) and via Gopher P a user-friendly, text-based, menu-driven information search tool. As well, several APC networks offer SLIP and PPP access which allows the use of a graphic interface to Internet services.

### **APC Networking Tools**

- \* Electronic Mail (e-mail)
- \* Electronic Conferences, both private and public
- \* Data bases
- \* Fax and Telex
- \* Internet Navigation Tools: Gopher, TELNET, World Wide Web, FTP, WAIS
- \* News and Information Services
- \* International User Directory

### **A Community Without Borders**

NGOs and activists world-wide use APC Networks for both their internal organizational communications as well as their public organizing efforts. In addition, many progressive news services distribute their publications electronically on the APC Networks. If you or your organization is working for social or environmental change, APC is the community to join. The APC Networks constitute the largest international on-line forum working toward progressive goals. To join APC's community-without-borders, contact the member network in your region.

### **How Much Does It Cost?**

NetworkStart-UpMonthlyHourly AlterNexUS\$ 20US\$ 10 minimum\$ 2 - 10Chasque0US\$ 10\$ 3 ColNodoUS\$ 20US\$ 10 minimum\$ 4 ComLink e.V.0DM 5 -25DM 3 EcuaneXUS\$ 15\$ 100 GlasNetICSs 80-200ICS 20 -

300ICS 7.2 - 91.2GLUKUS\$ 16\$ 80 GreenNet# 15# 5#2.40 - 3.60 AntennaDFL45 (US\$23)DFL 5(US\$8)DFL 9-12(US\$4.5-6) Histria0\$ 5 - 100 ZTN0\$ 5 - 100 LaNetaUS\$30US\$ 150 NicaraoUS\$ 25US\$ 7.50US\$1.80 - 4.20 NordNetSEK 100SEK 130/qtrSEK 75 - 150 IGCUS\$ 15US\$ 12.50US\$ 0 - 6 PegasusAU\$50 - AU\$95AU\$20-40AU\$ 1 - 12 PlaNet\$70 /yearvariablevariable SangoNetRand50-300Rand 35-75Rand 4-25 WamaniUS\$ 15-30US\$ 10-20US\$ 6-10 Web\$25-50\$10/mo or \$99/yr\$5/ \$10.

Rates vary according to the nature of the organization (e.g., NGO, For-Profit, Government, Individual, etc.). Monthly costs average roughly US\$10-20. Subscribing to any one of the member networks gives you access to all the above.

*Note:* the preceding information was copied directly from the World Wide Web, and are some of the APC's web pages. The graphics which accompanied the pages could not be reproduced, and are replaced by the [IMAGE] notations. These would have been displayed on the computer screen as photos and graphics, in all their full colour glory.

source: webweaver@igc.apc.org

# ECONOMIC SECURITY AND WORLD ORDER

*Don Mills*

## Introduction

Security is a primary concern of all human beings and a major factor in their behaviour, and this applies both to those who feel secure as well as those who live in a state of risk or uncertainty. One can assume that this has been so throughout human existence. In far simpler societies in the past, the possibility of illness, the concerns about adequate food supplies, and the dangers from natural forces, from predators or from enemies, would have been of main importance. For many in today's world, these remain.

But in an increasingly complex world other dangers and sources of risk have emerged—at the personal, the community, the national, the regional and the global levels. These dangers may stem from a variety of sources: from the activity of individuals, from deep-seated differences based, for example, on ethnic characteristics; from the actions of the state, or of powerful private entities; or from the play of economic forces, from the actions of governments or of interests in other countries. But it must be added that a state of insecurity in some cases derives from the inability or the failure of some individuals or communities to cope sufficiently with the requirements of living and of development.

In all of this, economic security occupies a special place, for in the final analysis, for some it is a matter of survival, every day of their lives.

Poverty has perhaps been the greatest and most persistent cause of economic insecurity, and especially in circumstances which give no cause for hope of better times. Poverty has become a matter of special focus in the international system and in some bilateral agencies, and its eradication has been enunciated in *Agenda 21* as an indispensable requirement for the attainment of sustainable development. The Copenhagen Social Summit took a similar position.

But there is too much of a tendency, it seems, to associate poverty with developing countries alone. This situation would benefit from an examination of the experience, past and present, of the industrialized countries, many of which still contain unacceptable levels of poverty and economic insecurity. The conditions associated with poverty and, in particular, lack of adequate educational opportunities, limit severely the prospects of those involved in achieving any significant levels of economic security.

In face of economic insecurity there is the need to depend on others in one way or another for sustenance, for shelter, and for other requirements—a factor which produces a variety of conditions and attitudes, whether in the case of individuals or countries. This dependence on private charity or concessional assistance from the state, or by way of international aid, whatever the conditions or motives, also carries with it some elements of insecurity in respect of the maintenance of such provisions, or the continuing relations between donor and recipient.

In the case of food aid from foreign sources, there is the special issue of the development of tastes and preferences for foods which cannot be produced in the recipient community, and which will more and more have to be imported. The availability of some food grants can stand in the way of any serious effort to develop local supplies of suitable products. There is also the risk that the surpluses from which some of these supplies are derived might no longer exist.

But there have been many positive developments which have reduced or virtually eliminated elements of insecurity for individuals or for countries or for the world community. These include the considerable improvement in the levels of living for a great many people, the development of public health and medical services and the very significant reductions in population growth rates achieved by some countries, and the contributions which science and technology have made to economic and social progress, e.g., in agriculture.

An immediate question which arises is, whose security? For in some cases there are concerns on more than one side, and these can involve conflicting interests.

There have been more than 100 wars since the end of World War II. Along with that war and the so-called Great War of 1914-1918, they have resulted in death, destruction, waste, and insecurity virtually throughout the world. Peace is an essential precondition for security.

The very act of the establishment of the UN system testified to the perceived need, not only for security in the military sense but for economic security. The Bretton Woods system—the IMF, the World Bank and GATT, now the World Trade Organization—was devised to bring coherence to a world which had been torn by conflicting economic interests in the period of the 1920s and 1930s, with resulting deep recession and severe hardship in many countries.

Again, there are instances of conflicting interests of consumers and producers (or importers) within a country, especially where price increases of critical items attributed to external factors are involved. This situation has been also observed at the international level in the case of producers or exporters of raw materials and minerals and the importers of these.

The actions of the OPEC countries in 1973 in respect of oil prices and supplies created alarm and a sense of insecurity in much of the world. For the first time the actions by a group of developing countries appeared to threaten the prosperity of a large number of industrialized countries. Some interests called for the establishment of an intervention force to ensure continuing supplies! The level of insecurity reached in some industrialized countries can be seen from an article appearing in a US newspaper which made the point that one year's accumulation of reserves by the OPEC countries could purchase a controlling interest in a number of major multinational corporations in the United States. Of course, this did not happen. But parallel concerns were evident in some circles in Europe at the moves by individual OPEC countries to acquire shares in some major companies. The attempt to establish an institutional mechanism for dialogue between consumers and producers was a more rational approach.

The question of energy supplies has on occasion been a serious threat to the economic security of oil importing developing countries. But decreases in the real price of the past 15 years have resulted in a relaxation of tension in this matter, but possibly it has slowed the search for other sources of energy and improvements in energy conservation.

The energy factor emerged once more as a major concern when, at the First Conference of Parties to the International Convention on Climate Change, a number of industrialized countries once more failed to join in the consensus on a strict timetable with clear targets for the reduction of their emissions of "greenhouse gases." But they were not alone. OPEC countries saw the requirements as a serious threat to their livelihood—their economic security. The refusal to join in the consensus left the threat of the serious consequences of global warming hanging over the world and particularly developing countries which contribute very little to the accumulation of those gases.

The active North-South negotiations during the 1970s were seen as involving a threat to the economic security of the North. The South, on the other hand, acted in the hope of establishing an economic order which would provide the newly independent countries with a greater measure of economic prosperity and security. The first reaction to the proposals by the developing countries for the restructuring of international economic relations with the industrialized countries was the fear on the part of some of the latter that this was an attempt to transfer wealth from North to South, and that some of the prescriptions would involve the setting up of institutional machinery at the international level to manage economic relations and activities. *Dirigisme*, in fact. This was seen as a situation which would limit the freedom of industrialized countries to use their resources, including their technology, freely and in their own interest. A similar reaction has been evident in the response of some of those countries to fundamental elements in the United Nations Convention on the Law of the Sea.

Here again, the concerns in regard to economic security appear on both sides—those who hoped to gain significantly from the regime and those who saw their major interests threatened. It is useful to look at some other aspects of economic security and actions or situations which are seen as dangers to such security.

It might be argued that the current emigration from the South to the North, to Europe and to North America, is an inevitable consequence of the imbalance between the two spheres, and that while it rests on the

search for economic security on the part of the emigrants, it creates in many cases feelings and fears of insecurity, both social and economic, in some host communities, and leads, on occasion, to violence.

But on the matter of whose security is involved there is another dimension which is of considerable importance. This is the issue of the economic security of future generations.

### **The Environment and Sustainable Development**

The environment issue has become, along with the concept of sustainable development, a matter of highest priority at the national and international levels. These issues may pose very serious threats to economic security, while indicating prescriptions for limiting or removing such threats. This, again, is by no means a new situation. But it has become a critical one, not least because of the growth in the human population, the pressure of economic development efforts on the natural environment, some of the technologies and production methods being used, and elements of greed and ignorance.

The particular risks facing the global environment constitute a danger to the continued existence of life itself. This therefore poses serious problems in the way of economic security. The devastating effects which, it is anticipated, would follow continuing global warming and sea-level rise, as well as the erosion of the ozone layer, are among the most serious and alarming of those risks. There are others of course, including acid rain and the degradation of the oceans, of the soil, and the removal of vast areas of tropical forest cover.

The global community has gradually become aware of these dangers and has begun to develop programmes to address them. These include a variety of international conventions, as well as *Agenda 21*, the programme endorsed at the Rio Summit in 1992. A major concern of *Agenda 21* is the condition of the world's oceans and seas (see Chapter 17, on integrated management and sustainable development of coastal and marine areas, including economic zones).

The concept of sustainable development is seen as critical to the maintenance of an acceptable balance between development and environment, and to the ensuring of economic security.

### **The Law Of The Sea**

The United Nations Convention on the Law of the Sea covers a wide range of issues and concerns including the matter of economic security. The considerable contribution of the oceans and seas is outlined by Elisabeth Mann Borgese in her book *Ocean Governance and the United Nations*. She points to the fact that both tourism and international trade, which are major factors in the world economy, depend to a very significant degree on the oceans. In addition, the living and nonliving resources of the oceans constitute major economic assets. For many countries, communities and individuals, the sea and the living resources provide a critical element in their economies and a foundation for their economic security. The Convention on the Law of the Sea provides a framework for the exploitation of these resources as well as the protection of the seas.

While it is concerned with the benefits which may be derived from the seas, it recognizes that mining activities on the sea-bed could in some cases have negative effects on land-based resources and thus on those who depend on them for a livelihood. This factor has therefore been taken into account in the Convention. In addition the special provisions for land-locked and geographically disadvantaged countries is an important contribution to their economic security.

The Convention is rooted in the concept of sustainable development and contains extensive provisions in respect of the environment. Altogether, with its articles dealing with a code of behaviour in respect of the uses of the seas, it represents a major step in the direction of the securing of a greater degree of economic security for the global community.



## **Global Warming and Climate Change**

Discussion of the Convention on oceans and seas points to a closely related issue, namely the phenomenon of global warming and sea-level rise. The serious consequences which are expected to flow from a continuing and unchecked burning of fossil-fuels—the main source of “greenhouse gases”—have alerted the international community to action. The Convention on Climate Change is now in force, having been ratified by a large number of countries. All countries will suffer very serious consequences if global warming continues over an extended period, and this will include the erosion of the basis of a number of economic activities. The impact on coastal areas will be particularly serious, with the rise in sea levels.

### **Small Island States**

In this respect, a particular group of countries stand in some cases in danger of devastation. These are the many small island developing countries and countries with low-lying coastal areas. Some of the small islands could disappear eventually with sea-level rise, or lose a significant portion of their territory to the sea.

In the context of the preparations for the Rio Summit, some 40 small island countries, along with a few small states with low coastal areas such as Guyana and Belize, formed the Association of Small Island Developing States (AOSIS). They conducted very successful negotiations on the content of Chapter 17 of *Agenda 21*, and obtained a decision for the holding of a later UN Conference on the Sustainable Development of Small Island Developing States. That conference was held in Barbados in 1994, and produced a Programme of Action which the countries concerned, with support at the regional and international levels, are expected to implement. The Programme pays special attention to climate change and sea-level rise, natural and environmental disasters, and coastal and marine resources, and contains detailed recommendations on these matters.

The Convention on the Law of the Sea and, in particular, the establishment of the Exclusive Economic Zone, provides an interesting prospect for these small islands. It involves a very considerable extension of their jurisdictions, and in fact, together these add up to a significant part of total ocean space. Clearly this offers major opportunities in terms of economic use of the areas and the advancing of economic security. But it would require the development of the necessary capability, including the means of protecting the areas from degradation, over-exploitation, and from the encroachment of foreign interests which can seriously erode the value of the resources.

An article in *Earth Talk*, December 1993, a bulletin published in Trinidad and Tobago, speaks of the threat to fisheries by techniques being used:

Extensive trawling ... by both artisanal and large foreign-owned ocean-going trawlers in the Gulf of Paria have depleted our stocks of demersal fish in this area. These trawlers have large driftnets which have the combined and disastrous effect of exhausting the existing fishery stock and damaging the capability of fish populations to reproduce.

The trawlers discard large quantities of by-catch. They operate illegally in these waters and are able to outrun coastguard vessels. The problems of very small countries, with rights and responsibilities over vast ocean spaces, thus are quite serious. If global warming and sea-level rise continue, some small islands may find themselves with less and less land and more and more sea!

The security of these countries will depend very much on the extent to which they establish effective regimes for planning and for action in view of the likely effects of these phenomena. A number of countries in the Caribbean are at present preparing to take such action.

Climate change involves other major hazards and threats to the security of countries such as those in the Caribbean. It is expected that there might be an increase in weather disturbances such as hurricanes, storms

and flood rains. Some observers are of the view that the near record number of such disturbances in 1995 is evidence of the onset of climate change. These events often result in very serious damage in many Caribbean countries, and other affected areas, and major economic loss and dislocation. Insurance, a means to mitigate such losses, has become intolerably expensive, and that industry is now keeping a close watch on the issue of global warming and its likely implications.

For a region of small islands the Precautionary Principle is of vital importance. This has motivated the AOSIS group to put forward a draft protocol to the Climate Change Convention calling for fixed timetables and targets for the reduction of “greenhouse gas” emissions.

### **Vulnerability of Small States**

The particular situation and especially the vulnerability of small states is described in the Programme of Action on Small Island Developing States. It was also the subject of examination by a Commonwealth Consultative Group which published its Report in 1985 (*Vulnerability of Small States in the Global Society*). The Report was commissioned following the Grenada crisis which resulted in the overthrow of the Government and an invasion which sought to protect the people of that country. The Report pays considerable attention to the issue of economic vulnerability and security. It speaks of the small size of the domestic market, the extreme dependence on exports and imports, the high dependence on capital inflows, and the problems of access to overseas markets, unstable world prices for some exports and unfavourable terms of trade, and in some cases, the lack of natural resources.

Dennis Pantin<sup>1</sup> points to another disability facing these countries:

The modern revolution in shipping and cargo handling plus the growing size of aircraft have greatly worsened the locational disadvantage of islanders over the past 20 years. The modern transport revolution has reached them mainly through the displacement from island trade of socially unique smaller wooden craft by second to fifth hand coastal ships in whole regions such as the Caribbean and the Pacific islands. As maintenance costs and replacement costs have soared, services have deteriorated and the costs of moving goods and people have risen.

The Commonwealth Report states that “the concept of vulnerability should not be interpreted in a strictly military sense.” It recognizes the link between security and development and points out that internal political difficulties in the case of small or large Third World states can trigger military intervention. The fact is that small countries especially face the risk of interference in their economic and other affairs from outside their borders. This may come from major economic interests or from those involved in the drug trade or other criminal activities. It should be emphasized, on the other hand, that in general small island countries are very attractive and have important assets, and that, with careful management, they can make considerable progress in their development. However, the reservations made in the Commonwealth Report are important.

### **The Condition of the Social and Welfare Systems**

Some developing countries finding themselves in serious economic difficulties have had to institute, along with loans from the multilateral financial institutions, programmes aimed at structural adjustment and deregulation and opening of their markets. One result of this, in some cases, has been serious erosion of the

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<sup>1</sup> Quoted in Bebler et al., eds., *The Economics of Sustainable Development in Small Caribbean Islands*, quoting from H.C. Brookfield, “An Approach to Islands” (1990).

social infrastructure and welfare services and consequent hardship, especially for people in the lower income brackets. The burden of external debt also has been an important factor in this situation.

But cutbacks in welfare have not been confined to developing countries. The situation in the United State is equally affected. High and persistent inflation has also created major problems in some countries, especially for people with fixed incomes such as pensions, or people who live on the interest from their savings.

### **Preferential Trading Arrangements**

Programmes such as those provided under the Lomé Convention linking the former colonial powers of Europe as well as other states of the European Union with former colonies, along with a few other developing countries, can be seen as a response to the need for economic security on the part of the latter. The system of trade preferences for some exports of the former colonial territories is a part of that approach, for example, in the case of bananas and sugar. But both the Lomé arrangement and the trade preferences are on their way out, and the implications for the developing countries concerned will depend on the degree to which they have prepared for this event by diversifying their exports.

Perhaps there is a parallel in the removal of accustomed support by Western countries and the end of support in the East resulting from the break-up of the Soviet bloc. This, too, has created serious economic problems and insecurity in some of the countries of the group. The industrialized countries of the West have sought to bolster the economies of those states.

In the special case of Cuba, the loss of the support which was provided by the Soviet Union has had very serious consequences for the economic security of that country, particularly in the face of the embargo imposed over more than 20 years by the United States.

### **Population**

Demographic factors can represent an important element in the matter of economic security. The existence of a large population in relation to the level of development of a country can be a major source of economic under-development and insecurity. In some instances it is associated with heavy pressure on land and other natural resources, and with poverty. There are, however, some countries whose resources exceed the capabilities of what is a relatively small population. Guyana in the Caribbean is a case in point.

Emigration has historically been a means of reducing population pressure and of seeking economic security for those who move. The movement from less developed countries of Eastern and Southern Europe, to industrialized countries of the North has special features reflecting both the search for security and the development of tensions and sometimes conflict with the host population.

Refugees represent a special problem which may be caused by political, personal, and sometimes economic insecurity, or war. The UN High Commission has registered over 20 million refugees located in different parts of the world. These include a large number of environmental refugees who leave their lands because of conditions which are inadequate for the support of life.

### **The Ethnic Factor**

Associated with all this are the levels of economic insecurity experienced in situations where different ethnic groups coexist in an uneasy state. Ethnic differences, and the prejudices and discrimination that often attend them, sometimes result in one group being disadvantaged economically. These situations represent one of the most difficult and explosive circumstances in today's world. The events in such places as Canada, Ireland, the Middle East, Rwanda, or Sri Lanka attest to that fact.

This particular aspect of human behaviour has been demonstrated in extreme form in recent times in the practice of "ethnic cleansing," but it is not a new phenomenon by any means and has been witnessed in past

periods of history and in a number of instances in recent times. The injustices inflicted and the resulting insecurity will ensure that these events remain on the agenda of the people who suffer, those directly responsible as well as the international community.

### **Indigenous Peoples**

There is a particular category of peoples who have in many cases been placed in positions of considerable economic insecurity as a result of what has been regarded as “advancing civilization.” Indigenous people in many parts of the world have had their rights infringed, their property expropriated, their health endangered and their cultures eroded. A gradual process of redress and recognition of the rights of such peoples and the value of their cultures is taking place. They are also establishing contacts and networks among themselves, and they have achieved special recognition in the context of the decision by the United Nations to widen the opportunities for participation of nongovernmental interests in the Rio Summit and the preparatory meetings leading to it. In some communities, the lives of such persons are dependent on the sea and fishing, and the abrogation of their traditional rights undermines their entire lives.

### **Health**

Health is a major factor in personal economic security and in some circumstances can have very negative effects on communities or countries. Perhaps the world is no longer exposed to the possibility of widespread plagues such as those of the Middle Ages, but the influenza epidemic of 1918-19, for example is reported to have resulted in the deaths of 20 million people. *Agenda 21* states that:

Advances in the development of vaccines and chemotherapeutic agents have brought many communicable diseases under control. However, there remain many important communicable diseases for which environmental control measures are indispensable, especially in the field of water supply and sanitation. Such diseases include cholera, diarrhoeal diseases, leishmaniasis, malaria and schistosomiasis.

Of course, access to adequate affordable medical attention is a major factor.

### **The Responsibility of the State**

The state bears a considerable share of the responsibility of seeking to ensure economic security for the country and the people. An effective democratic system, while being no guarantee of such security, is important. Constitutional guarantees of basic human rights, including economic rights and the rights of women, based on the UN conventions, also provide a necessary foundation. All of these must be backed by an independent judiciary.

The state also has the responsibility of helping to provide the conditions for macro-economic stability, including the containing of inflation which can be a major cause of economic insecurity. The government must also protect or advance the interests of the country in relations with others, while playing a responsible role in respect of regional and global concerns.

### **Regional Groupings**

An approach which has been practiced for a long period of human history is the establishment of groups of countries or communities for purposes of power, glory and influence, or for security. The empires established by European countries from the 15th century onward provided, among other things, security of

supplies, of materials, spices, sugar and other products, captive markets for the exports of the metropolitan country, and territory for the settlement of population. Ironically, in recent times this has turned around. The former colonies have sought guaranteed markets for their major products, and quotas and preferential tariffs, and have, as well, sought opportunities for settlement of some of the people in the former metropolitan countries. The Empire strikes back, so to speak!

The formation of regional economic integration systems, which in the post-World War II years became a major strategy among newly independent developing countries in different parts of the world, is another example of the use of groupings as a means of achieving some element of economic security. The European Community (now Union) is a major example of that development.

The more recent formation of large trading blocs is a special development which also provides some measure of economic benefit and security. Such blocs have been formed or initiated in Europe with the prospect of considerable expansion of membership, and in North America with NAFTA. There are others, including the Pacific Rim Group and the Asia-Pacific Economic Cooperation Group. Other organizations exist with their purposes including the search for economic benefit and security. These include the OECD, the Non-Aligned Movement and the Group of 77, the latter being the caucus of developing countries in the UN now numbering over 130, which negotiates jointly on international economic and social issues.

### **The UN System**

The United Nations system provides a number of processes and organizations which allow debate and negotiation on a variety of issues with a view to reconciling as far as possible differing and sometimes strongly opposed interests. For smaller countries especially, and in particular developing countries, it offers some possibility of advancing or protecting their economic interests—a possibility which would be far smaller without the UN. Included here are the large number of international conventions covering many issues, including protection of the oceans.

A particularly important UN initiative is the Regional Seas Programme, designed to bring together countries bordering the various seas into a compact for the protection of the marine environment. The UN-supported programmes for the cleaning up of the Mediterranean and the Black Sea are important examples. The conference on straddling and highly migratory fish stocks should also contribute to economic security.

The proposal favoured by some that the UN should establish an Economic Security Council is interesting, but presents some problems. It is, however, a recognition of a special need which up to the present has not been fully addressed.

### **Economic Security in the Era of Globalization**

In this era of globalization of information, finance, trade, including the drug trade, crime, and the like, each country still must seek means of gearing itself for living successfully in that world. Those who fail to do so run the risk of being marginalized. In particular they must enter the age of information technology and draw upon the large and expanding body of data of all sorts being generated.

One phenomenon of the new era is the movement towards free trade. This is attended by considerable feelings of insecurity in a number of different directions. Many developing countries feel they are not yet ready to face the full impact of competition in all the goods and services in which they have special interest. But they are not alone. The fight put up by special interests in some industrialized countries, for example, to retain protection of their agricultural products, testifies to the extent to which the demand for economic security can affect both individual producers such as farmers, and the international community, and interests elsewhere such as consumers or producers whose trade is inhibited by reason of such protection.

Developing countries in particular face other hazards in regard to trade. Adverse terms of trade, especially where related to the decline in demand for some commodities, creates serious problems for those

who depend heavily on them, and has been seen as resulting in massive transfer of resources from South to North. During the 1970s, developing countries sought to counter this situation by proposing a system of indexation, linking the prices of their imports from the North to the prices of their exports to those countries.

More recently, the introduction of environmental conditions into trade by some Western countries has been seen in some instances as having the effect of an application of nontariff barriers. There is no doubt that production processes, especially in the case of exported products, will more and more be expected to conform to satisfactory environmental standards, as well as pricing systems which reflect environmental costs. Whatever the justification may be, many countries could be faced with serious difficulties. In some cases changes in the production methods will require the application of special technologies. Since such technologies are mainly in private hands, this will require appropriate payment. This matter was a major item of discussion and negotiation in the UN Conference on Environment and Development.

The vigilance now being exercised in respect of intellectual property is a material factor in this situation. This involves economic benefit, and therefore security for those holding patents and other entitlements.

### **A New World Order?**

The vision of a new world order has moved a number of leaders to optimistic expressions about the future. Perhaps the most dramatic of these came in the context of the Gulf War. That situation, which found the Soviet Union and the United States of America working together, led President Bush, in an address to Congress in September 1990, to speak of the emergence of "a new partnership of nations which stood aligned against Iraq's occupation of Kuwait." He continued,

We stand at a unique and extraordinary moment ... out of these troubled times a new world order can emerge; a new era free from threat of terror, stronger in the pursuit of justice, and more secure in the quest for peace. An era in which the nations of the world, east and west, north and south, can prosper and live in harmony ... a world where the strong respect the rights of the weak .... This is the vision I shared with President Gorbachev in Helsinki.

The following statement from the introduction to the UN Secretary-General's *Agenda for Peace*, issued in 1992, echoes the same hopes.

In the past months a conviction has grown, among nations large and small, that an opportunity has been regained to achieve the great objectives of the Charter, a United Nations capable of maintaining international peace and security, of securing justice and human rights and promoting, in the words of the Charter, "social progress and better standards of life in larger freedom." This opportunity must not be squandered.

However it is clear today that a New World Order is not at hand.

But the sentiments expressed, and the programmes approved at such conferences as the Rio Summit and the Social Summit in Copenhagen suggest a yearning for a more just and more peaceful world—one in which the harsher expressions of economic insecurity may begin to disappear.

# INTERNATIONAL COOPERATION FOR THE EQUITABLE AND SUSTAINABLE DEVELOPMENT OF THE OCEANS

## *Seychelles: A Case Study*

*Danielle de St. Jorre*

### **Introduction**

The theme of *Pacem in Maribus XXIII* is indeed of critical importance to the common future of the whole of mankind. It is, however, especially important to small island developing states, such as the Seychelles, whose very existence depends upon the rational and sustainable exploitation of its ocean resources, be it for the tourism and fisheries industries of the present, or the exploitation of biological and mineral resources in the future. However, before looking at the Seychelles as a "case study," it is appropriate to make a few preliminary observations on the importance of "international cooperation for the equitable and sustainable development of the oceans," which is the focus of this presentation.

The history of human civilization has been one of competition for the natural resources of the planet. Indeed, the quest for control over the earth's resources has led to colonization of whole continents, and to countless wars between nations. Until recent times, such conflict has generally been over terrestrial resources. Although the oceans cover over 70 percent of the planet's total mass, they have been relatively little explored. Nevertheless, it is known that the resources of the ocean seabed are immense. As the natural resources of the earth's land masses become depleted, and with the development of scientific and technological capabilities, it is becoming increasingly viable to exploit those of the oceans.

An important characteristic of international relations in the post-Cold War period is that the focus of conflict between nations is increasingly over economic and technological issues, rather than military, political and ideological rivalry. In this context, the concept of economic security is becoming increasingly important for all nations. Intrinsicly linked are the concepts of environmental security, and environmental sustainability.

There is thus an enormous potential for conflict over the exploitation of oceanic resources. Indeed, there have already been serious international disputes related to the over-exploitation of oceanic fisheries resources, which has led to the depletion of fish stocks, with consequences not only for future food security, but also for employment in a number of countries. International cooperation is therefore increasingly critical, in order to guarantee the peaceful, equitable and sustainable exploitation of oceanic resources.

For many countries, and especially small island states such as the Seychelles, this raises an important question. In view of our lack of human, financial, scientific and technological capacities, how can we ensure that we can benefit from the resources of the ocean, in a manner that is both equitable, and environmentally sustainable in the long term?

Among the challenges we face are those related to the scientific and technological gap between a few developed countries, mainly though not exclusively in the North, and the majority of developing countries. Clearly, the former are much better placed to benefit from the exploitation of oceanic resources, be it through the utilization of large-scale industrial fishing fleets, or the use of advanced, and expensive, technology for exploiting biological and seabed mineral resources.

The urgency to address these issues is reflected in the provisions of the United Nations Convention on the Law of the Sea. This global instrument deals with *all* ocean space and with *all* ocean uses, including shipping and navigation, mineral development, fisheries, scientific research, and environmental protection. These issues are an enormous challenge to all countries. For small island states, the challenges are even greater, due to the constraints imposed by their limited resources, and their custodianship over vast areas of ocean territory. In many cases, these constraints even include a lack of legal expertise, which is necessary to fully appreciate, and thus benefit from, the provisions of the Convention.

## **The Seychelles**

The case of the Seychelles illustrates the challenges facing small island developing states, in ensuring the sustainable development of their ocean territories. An estimated 30 percent of the world's population live in the Indian Ocean Region and depend heavily on the resources of the ocean to meet their growing needs. Unfortunately, from Eastern Africa to Western Australia, and from the Antarctic to the Indian subcontinent, the waters of the Indian Ocean are already feeling the destructive impact of human pressures.

The Seychelles, a small island developing state situated in the Western Indian Ocean, comprises an Exclusive Economic Zone of 1.3 million square kilometres. Its small population of around 75,000 relies heavily on the marine environment for the success of its two main industries, fisheries and tourism.

### ***Fisheries Management***

The importance of the Law of the Sea to the Seychelles is illustrated by the fact that if the Seychelles had not obtained exclusive rights to the living and nonliving resources within the 200-mile Exclusive Economic Zone, the original 12-mile zone could have been over-fished, with implications for the food security of the Seychellois people, one of the world's highest consumers of fish on a per capita basis. The sustainable exploitation of fisheries resources, the conservation of fish stocks and the protection of fish habitats are crucial to the continued prosperity of the Seychelles.

### ***Tourism***

The Seychelles also depends on the ocean for its tourism industry, which is enhanced by a warm climate, lush tropical vegetation, beautiful pristine beaches, clear seas, and a friendly population. Tourism accounts for around 60 percent of foreign exchange earnings, and 17 percent of the work force is directly engaged in tourism activities. This represents well over 6,000 persons covering a wide range of services, including transportation, airlines, car hire, tour buses, boats, yachts, hotels and guest houses, arts and crafts. In 1971, the number of visitors was 3,175 compared to 63,417 in 1984 and 136,180 tourists and cruise ship passengers in 1993. In 1994 the direct contribution of the tourism industry to national GDP was approximately 20 percent.

Although the Seychelles is currently embarking on a strategy to diversify its economy into offshore services, transshipment and export processing, tourism will remain the main engine for the growth of the economy, and for maintaining the living standards of our people. This heavy focus on tourism means that the Seychellois economy remains vulnerable, a situation exacerbated by the predominance of beach tourism. Although activities such as cruise, conference and thematic "eco-tourism" are being promoted, the average tourist's image of the Seychelles is a sunny, sea refuge from cold European winters. This dominance of beach tourism, as well as emerging eco-tourism, makes the industry extremely susceptible to any form of pollution and thus necessitates firm environmental management for its continuance.

### ***Protected Areas***

Despite our limited resource base, the Seychelles has a history of integrating political commitment to environmental management. Indeed, the Seychelles can boast of more protected land area relative to size than any other country—43 percent of the land mass—and a further 23,000 hectares of surrounding reefs and lagoons. The Seychelles also hosts two World Heritage Sites, including the largest coralline atoll in the world, Aldabra, the strict nature reserves of Cousin and Aride islands, plus five marine national parks.

A small population to manage such a vast area of ocean with 115 islands naturally creates problems. For even the most exemplary legislation cannot, by itself, guarantee the protection of the environment, or the



sustainable use of species and ecosystems. The conservation of the marine biological diversity of our exclusive economic zone *also* requires enforcement, monitoring and research.

### ***Threats to the Environment***

In addition to the need to protect and manage the biodiversity of our vast EEZ, threats are also posed by the illegal activities of foreign fishing vessels and poachers. Some of the busiest shipping lanes in the world pass through our EEZ, always carrying the danger of a major oil spill. There is also a great potential for damage to the marine environment deriving from a whole range of land-based activities, including the discharge of pollutants from the industrial fisheries, inefficient sewerage systems, and the need to reclaim land from the seas for development purposes.

Moreover, the ocean environment does not respect national boundaries. The abuse of the oceans and its resources in one territorial jurisdiction can have a profound effect on neighbouring states, and even on the other side of the globe in the case of certain organic pollutants. New approaches to marine and coastal area management and development, at the national, sub-regional, regional and global levels, are therefore of paramount importance to sustainable usage of the oceans' resources, and hence to global security.

### ***Regional Cooperation***

Within the Eastern African and Indian Ocean region, cooperation is developing in a number of specific areas related to the marine environment. While the Regional Seas Programme is presently being co-ordinated by UNEP, only one more ratification is needed for the 1985 *Convention for the Protection, Management and Development of the Marine and Coastal Environment in the East Africa Region* to come into force. The Seychelles will then take over the responsibility for co-ordinating the Programme by hosting the Regional Coordinating Unit.

Unfortunately, given the limited resources of the countries of the region, and the widespread existence of poverty, it is doubtful that there will be sufficient resources made available through national contributions to the Regional Trust Fund. This is a serious problem that requires the development of innovative funding mechanisms. One possibility presently being explored is the development of a regional programme to promote "sustainable tourism" in the region.

This initiative is being developed jointly by the Government of the Seychelles and the Advisory Committee on the Protection of the Sea (ACOPS), at the initiative of Minister de St. Jorre, who is the Vice-President of ACOPS for the East African Region. This programme will involve partnership between the public and private sectors, and will promote commitment to the preservation and protection of the marine environment through the creation of income generating opportunities for local communities, and will also generate funds for the Regional Trust Fund.

Within the Indian Ocean region, the Seychelles is also active in a number of organizations involved in promoting cooperation in the fisheries sector, with a view to ensuring sustainability of the industry. These include ORSTOM, the Association Thoniere, the Marine Resources Assessment Group (MRAG), the Western Indian Ocean Tuna Organization (WIOTO), and the Indian Ocean Tuna Commission (IOTC). While some of these organizations are still in their infancy, and in some cases still require additional signatories to become effective, there is an increasing recognition within the region, of the need for a concerted regional approach to the management of fisheries resources.

### ***Bilateral Cooperation***

Besides these regional organizations, the Seychelles (and other countries in the region) are exploring ways of co-operating with other countries and agencies. For example, earlier this year, the Seychelles and Great Britain signed a joint statement to promote fisheries conservation and scientific research.

### ***Mineral Resources***

Turning now to the resources of the sea floor, the Law of the Sea Convention introduces another new concept by designating the International Seabed Area beyond the limits of national jurisdiction as an area of Common Heritage of Mankind. Currently, the seabed resources arousing the most commercial interest are manganese nodules, which are abundant in the Indian Ocean. These nodules contain cobalt, nickel and copper. In 1967, Professor Cronan of London University, found ferromanganese oxide concretions of great economic potential in the Central Indian Ocean Basin. Exploitation of these concretions are potentially a valuable resource to the countries of the Indian Ocean.

Under the terms of the Convention, even nations which are not involved in mining will be entitled to share the benefits of this "common heritage." However, it is questionable whether the majority of developing countries will, in fact, be in a position to take full advantages of these provisions. Quite simply, most lack the necessary human, financial, scientific and technological resources.

Partnerships and joint ventures, between developing countries and governments and private sector agencies and industries from the developed world, are thus clearly a prerequisite for countries such as the Seychelles. In this respect, recent negotiations between the Seychelles Government and several research institutions in the United Kingdom, point a way forward. For example, the Oceanographic Institute of Southampton University has expressed interest in carrying out a full assessment of manganese nodules within Seychelles waters, and to construct a research centre with a laboratory to analyze the collection of specimens.

This point is of extreme importance to a small island state like the Seychelles, that needs to provide capacity-building opportunities to address one of the main constraints for further development, namely, the shortage of skilled technical staff, including marine scientists. Cooperation in capacity building is essential; however, by itself it will not solve the problem.

### ***Bio-prospecting***

In view of the limited scientific and technological capacities of most developing countries, we believe there is also a need for the introduction of legal instruments to ensure that the benefits of "bio-prospecting" are equitably shared. Some countries have already made considerable progress in this respect, while others require the support and assistance of the international community to draft appropriate legislation.

At the recent Second Conference of the Parties to the Convention on Biological Diversity, we also proposed that a mechanism be established, whereby those organizations, institutions and corporations engaged in "bio-prospecting" would contribute towards national, regional and sub-regional *Trust Funds for Biodiversity*. This would be one innovative means of funding marine conservation, based on the user pays principle, which would contribute greatly towards resolving the considerable financial constraints faced by regional seas programmes, particularly those in the South.

### ***Land-based Sources of Pollution***

Another important aspect related to the sustainable development of the oceans is the protection of the coastal marine environment from land-based activities, which account for nearly 80 percent of all marine pollution. The Seychelles was among 103 countries that participated recently in the Intergovernmental

Conference to Adopt a Global Programme of Action for the Protection of the Marine Environment From Land-Based Activities, hosted by the US Government at the Department of State in Washington, D.C.

The Global Programme of Action identifies concrete actions needed at various levels of society, to prevent, control, and reduce the degradation of, as well as speed the recovery of, the marine environment. Through an integrated approach involving a variety of international programmes and agencies, it classifies the areas of concern, establishes priority action areas and defines strategies and programmes to take advantage of new global initiatives in the area of marine environmental protection. The Conference also urged developed and developing countries to negotiate a global treaty restricting the spread of a dozen persistent organic pollutants (POPs).

Finally, the Programme of Action, whose implementation will be monitored by UNEP, also provides for the establishment of a Clearing House Mechanism. However, it is of critical importance that this mechanism be more than just an information referral point. Quite simply, due to their weak national capacities, many developing countries would be unable to benefit. Such a mechanism must also facilitate the provision of effective technical, scientific and financial cooperation, as well as capacity building.

One of the most important aspects of the Global Programme of Action is that it recognizes the major differences among the regions and countries of the world in terms of environmental, economic and social conditions and levels of development, which will lead to different judgements on priorities in addressing problems related to the degradation of the marine environment by land-based activities.

Thus, while the Conference recommended that countries should make efforts to generate financial resources nationally, through the introduction of financing options such as the "user pays" and the "polluter pays" principles, it was also recognized that these options were not always viable in developing countries. It was therefore agreed that developing countries would need various kinds of assistance in implementing the proposed measures, including technical and financial assistance, transfer of technology and assistance with capacity building. This is an extremely important issue, for unless the constraints, and subsequent needs of developing countries are taken into account, this, or any other, Programme of Action cannot be implemented on a truly global basis.

International cooperation is thus an important element in the development of national programmes towards the sustainable development of the oceans. In the Seychelles, we are now developing and implementing a national programme of Integrated Coastal Zone Management, through a five-year regional programme funded by the European Union and implemented by the Indian Ocean Commission. The project is also being implemented in Comoros, Mauritius, Madagascar and Reunion.

### ***Coral Reef Management***

One aspect of the project involves coral reef management and complements the International Coral Reef Initiative (ICRI), an initiative launched at the UN Small Island Developing States Conference, held in Barbados in 1994. Early in 1996, the Seychelles will host the Western Indian Ocean ICRI workshop. Other ongoing programmes include joint collaboration with York University (UK), with the assistance of the Indian Ocean Commission and the Darwin Initiative of the Natural History Museum of London, to map the reefs and potential impacts in protected areas.

### ***A Regional Marine Science Centre***

The establishment of a Marine Science Centre in the Seychelles, through international cooperation, is also being seriously explored. When realized, this will be an important step in providing the institutional capacity for a Regional Oil Spill Response Centre for the Western Indian Ocean Region.

At the national level, the Seychelles' Environmental Management Plan (1990-2000) identifies a number of environmental issues and priorities for action, which emphasize the need to adopt an approach based

on integrated management of sustainable development. Those which specifically relate to the marine environment stress the importance of developing an anticipatory and preventive approach to coastal and marine pollution, as opposed to belated attempts at environmental rehabilitation.

However, despite the designation of marine national parks and reserves, the effective implementation of existing legislation and the identification of new legislative requirements are constrained by several factors, including the lack of scientific personnel and operating budgets to ensure the proper monitoring of species and habitats. Thus, although a number of initiatives are being implemented, the Seychelles presently lacks the database monitoring capability, and even expertise in some key areas, to produce authoritative assessments of the marine environment. The Seychelles is not unique in facing these constraints. Rather, our experience emphasizes the need for assistance to be provided to developing countries, to facilitate the fulfilment of their commitment to promote sustainable development, and their obligations to the international community.

The importance of implementing international Conventions at the national level can be highlighted by the threat posed to the Indian Ocean region by ship generated marine pollution. The Indian Ocean is the busiest petroleum tanker traffic route in the world. International tanker trade passes through the Seychelles western territorial waters, close to the World Heritage Site of the Aldabra atoll. Several accidents resulting in oil spills have already occurred in the region, among them the sinking of the "Ennerdale" off the Seychelles.

Coral reefs and mangroves forests have been affected by oil because of their proximity to marine tanker routes. Indeed, heavy tar ball pollution has been reported in the Seychelles. Unfortunately, there is cause for concern about the capacity of Indian Ocean States to respond to such emergencies.

### ***Protection of Marine Mammals***

The protection of marine species and habitats in the Indian Ocean Region is another area of concern. The Law of the Sea Convention has given coastal states the right to prohibit, limit or regulate the exploitation of marine mammals, and with the support of the regional states, the International Whaling Commission has already declared the Indian Ocean a sanctuary.

### ***Turtles***

Through the Environment Management Plan, the Seychelles has recently implemented a radical project to protect turtles, with international assistance through the Global Environment Facility (GEF). The first stage of this project involved giving turtles complete protection under the Wild Animals (Turtles) Act of 1994, banning the local trade of hawksbill turtle shell, purchasing the remaining two tonnes of turtle shell from the artisans, compensating them and mobilizing the general public to register every carapace with the Division of Environment. The second phase involves a stock assessment in the Western Indian Ocean. Concerning the protection of turtle habitat, all Seychelles marine national parks are at present undergoing a review, which involves the development of a new National Conservation Strategy, management plans and database training for the Conservation and National Park personnel. IUCN is providing technical assistance and the European Union is funding the project.

### ***A Biodiversity Agency***

A further planned development is the creation of a semi-autonomous Biodiversity Agency, to carry out the overall management of all marine national park areas. Funds generated by the agency will be directly re-invested in the environment, rather than going to the national treasury. The European Union is presently funding the renovation of the buildings to host the Agency in the Ste. Anne Marine National Park, designated the first marine protected area in the Indian Ocean in 1973.

## **Conclusion**

As states resort increasingly to the oceans to supplement their development needs, there is a concomitant need to effectively implement the provisions embodied in the Convention on the Law of the Sea, with respect to the conservation, protection and management of the marine environment. In highlighting the determination of the Seychelles Government to continue its commitment to the protection and conservation of the marine environment, the above therefore illustrates some of the ways in which the equitable and sustainable development of the oceans can be accomplished, through actions at the national level, coupled with sub-regional, regional and global co-operation.

In recognizing the differences among states, in terms of environmental, economic and social conditions, and levels of development, the international community must continue to respond to the needs of developing countries, through supporting appropriate programmes and activities that can be implemented at both national and regional levels. This is not just a necessity for the developing countries but it is an issue that has direct relevance to the sustainability of the planet's oceanic resources as a whole.

Finally, in view of the increasing importance of the environmental and economic security of the oceans, the potential for conflict over seabed resources, and the immensity of the combined oceanic territory of small island developing states, it is time that the interests and concerns of these states be accorded the importance they deserve. For this reason, and taking account of current debates regarding reform of the UN System, the Seychelles strongly supports the idea of small island states being represented on an enlarged UN Security Council. Indeed, in view of the large number of small island states in the Commonwealth, we raised this issue at the recent Commonwealth Heads of Government Meeting, in Auckland, New Zealand.

The Seychelles is also a strong supporter of the Alliance of Small Island States (AOSIS), and advocates the enhancement of its role so as to enable it to make a real contribution to meeting the challenges that lay ahead. Although small in terms of land mass and population, small island states have a right to a voice in matters that concern their vital security interests, including the sustainability of oceanic resources. This is also in the best long-term interests of the international community as a whole, since small island states are the custodians of a large proportion of the world's oceans.

# THE PATH TO SUSTAINABLE FISHERIES

*Anthony T. Charles*

## Introduction

Human use of the oceans takes many forms, but one of the most crucial is surely that of marine fisheries, a key source of food and livelihood for millions. Yet fisheries are also among the most complex of human activities, and difficult to manage. Sustainable use of the oceans clearly is essential for achieving both environmental and economic security. It is also clear that efforts to achieve sustainable use of the oceans must pay particular attention to fisheries. A series of questions need addressing in this direction. What exactly constitutes a “sustainable fishery”? How can fishery sustainability be assessed and predicted? What policy directions serve to promote sustainable fisheries? These three questions form the focus of this chapter.

## What is a “Sustainable Fishery”?

Central to fishery thinking world-wide is the question: What harvest can be taken today without harming the resource available in future years? Indeed, analysis of this balancing act between present-day benefits and future rewards pre-dates by a considerable margin the current popularity of “sustainable development” discussions (Schaefer 1954; Beverton and Holt 1957; Gulland 1977; Ricker 1987; World Commission on Environment and Development 1987).

Attention has typically focused on determining “sustainable yields,” annual harvests (Total Allowable Catches) that can be repeated indefinitely into the future. This determination has been largely the purview of biologists, but in fact there is a range of sustainable yields that will provide biological sustainability—the choice amongst these will depend on other fishery objectives (Charles 1992a,b).

For example, some emphasize the pursuit of “economically-efficient” fisheries, to maximize resource rents—the return to resource owners, analogous to the profits and wages that the owners of capital and labour receive for their inputs. Indeed, this “rationalization” perspective, taken to its extreme, provides no inherent assurance of ecological sustainability; as Clark (1973) showed, in a fishery managed for rent maximization, the natural capital may be “liquidated” (with the fish stocks driven to extinction), as the proceeds are invested elsewhere.

A second line of thinking focuses on social and community concerns, particularly the well-being of people in fisheries and coastal communities. Emphasis is placed on small-scale community-based management, using “appropriate” technology. Within this perspective, the acceptance of sustainable yields is due not to an inherent concern for fish conservation, but rather as a means to preserve the way of life in fishing communities. Equity considerations (*how* the yield of fish is distributed) are considered as important as actual levels of harvest.

While considerable conflict in fisheries arises due to differences over the desired objectives to be pursued, it is appropriate in examining sustainability to recognize the need for simultaneous achievement of several sustainability components. Charles (1994) proposed a set of four fundamental components of sustainability in the fishery context:

**Ecological Sustainability** implies (a) maintaining the resource base (and related species) at levels that do not foreclose future options, and (b) maintaining or enhancing ecosystem capacity, quality and resilience.

**Socio-economic Sustainability** focuses on the “macro” level, on maintaining or enhancing overall socio-economic welfare, aggregated across the system under consideration. Since the economic and

social criteria involved are inseparably linked in the process of policy formation, this socio-economic welfare is based on a blend of relevant economic and social indicators, such as levels of resource rent (or sustainable net benefits), of distributional equity, and of viability within local and global economies.

**Community Sustainability** emphasizes the “micro” level, focusing on the need to sustain communities as valuable human systems in their own right (being more than simply collections of individuals). This involves maintaining or enhancing the community's economic and socio-cultural well-being, its overall cohesiveness, and the long-term health of the relevant human systems.

**Institutional Sustainability** involves the maintenance of suitable financing, administrative and organizational capability over the long term, as a prerequisite for the above three components of sustainability. Institutional sustainability implies that there be no decay over time in the quality of institutional arrangements, a point related in particular to the manageability and enforceability of resource use regulations.

The first three of these sustainability components can be viewed as the fundamental “points” of a Sustainability Triangle. The fourth, institutional sustainability, interacts amongst these, potentially affected (positively or negatively) by any policy focused on ecological, socio-economic and/or community sustainability. If overall sustainability requires reasonable levels of all four components, a proposed fishing activity or fishery management measure will be unacceptable if it were to have an excessively negative impact on any one component. This provides a general guideline for policy development, which will be utilized in the following discussion, focused on developing a practical framework for assessing sustainability in fisheries.

### **How can Sustainability be Assessed and Predicted?**

Evaluating the nature and extent of sustainability involves two related tasks: (1) assessing the current state of the system (for example, the sustainability of an existing coastline), and (2) predicting the future state of the system *a priori* (such as the effects of a proposed management approach or development project on sustainability). The first of these might be seen as a “status report” (e.g., assessing ecological and human carrying capacities) while the second concerns the “impact” of *proposed* human activities, building on analogous methods in environmental impact assessment.

A process of “sustainability assessment” for accomplishing such evaluations, both qualitatively and quantitatively, involves three steps:

1. A concrete set of criteria (a “checklist”) that must be met in order to achieve each component of sustainability.
2. A corresponding set of quantifiable “sustainability indicators,” reflecting the status of each of the criteria.
3. Where appropriate, aggregations of indicators into “indices of sustainability.”

### *Sustainability Checklists*

What elements of a fishery system must be considered to assess its sustainability? The components of sustainability described above can be refined to provide a multi-faceted sustainability “checklist,” a tool to highlight “trouble spots” in fishery systems. Such a checklist must incorporate aspects of the ecosystem, the

macro-level socio-economic structure, the micro-level well-being of local communities and the institutional integrity of the system. Table 1 depicts a possible checklist of criteria, a framework that is meant to be broad in scope; not all items in the checklist will be relevant for a particular fishery under consideration.

**Table 1: A Sustainability Checklist**

<b>ECOLOGICAL SUSTAINABILITY</b>
<p>Are exploitation levels (catches) on directly impacted species such that ecosystem resilience is maintained (or at least not reduced excessively)?</p> <p>Are indirect biological impacts reasonably understood to the extent required to ensure sustainability?</p> <p>Are impacts on the ecosystem as a whole reasonably understood to the extent required to maintain overall resilience?</p> <p>Are alternative systems of management/utilization available so that pressures from any increased demands placed on the system under consideration do not increase beyond institutional management capabilities?</p>
<b>SOCIO-ECONOMIC SUSTAINABILITY</b>
<p>Will the activity increase the aggregate long-term rate of employment?</p> <p>Will the project enhance economic viability in the local and regional systems?</p> <p>Are the current and projected levels of distributional equity in the system sufficient?</p> <p>Will long-term food security and livelihood security be increased, as measured in both average and minimal terms?</p>
<b>COMMUNITY SUSTAINABILITY</b>
<p>Is the project likely to increase the long-term stability of affected communities?</p> <p>Are traditional value systems of importance to the community maintained?</p> <p>Are local socio-cultural factors (such as tradition, community decision-making structure, etc.) incorporated?</p> <p>Are traditional resource and environmental management methods utilized to the extent possible?</p> <p>Are there adverse impacts, at any level or in any component of the system, that unduly affect particular components of the community (e.g., gender-related impacts)?</p>
<b>INSTITUTIONAL SUSTAINABILITY</b>
<p>Will the long-term capabilities of corresponding institutions be increased?</p> <p>Is financial viability likely in the long term, or does the intrinsic importance of the system justify ongoing support from society regardless?</p>



*Sustainability Indicators*

The above checklist must be quantified if one is to assess the extent of sustainability problems, and to make comparisons between sustainability criteria. This requires a set of clear-cut *measures* of sustainability, referred to here as “sustainability indicators,” based on criteria in the checklist. A preliminary attempt in this direction is suggested in Tables 2, 3 and 4, for the cases of ecological, socio-economic/community and institutional sustainability respectively. (It should be noted that the particular criteria selected, and the corresponding indicators chosen, are not definitive, but are meant to provide an idea of the proposed approach, as well as a base from which to extend and improve the set of indicators.)

*Sustainability Indices*

The above indicators are fundamentally noncommensurable, in that each measures a different aspect of the fishery system. In particular, a comparison between indicators representing different components of sustainability is not a technical matter, but rather one that should be left to policy makers as a “political” task. On the other hand, it might be argued that indicators within a given component of sustainability are at least somewhat comparable and that, using suitable weightings and averaging, one might aggregate across such a set of indicators to create “indices” of sustainability:

- ecological sustainability index;
- socio-economic/community sustainability index; and
- institutional sustainability index.

**Table 2: Ecological Sustainability Indicators**

<b>Sustainability Criteria</b>	<b>Indicator</b>
Catch Level	(MSY-Catch)/MSY
Fish Population Size	Biomass (relative to historical average)
Biomass Trend	Multi-year Average Annual Percentage Rate of Change
Fish Size	Average Fish Size (relative to historical average)
Environmental Quality	Quality (relative to historical average) + (% Rate of Change)
Diversity (Harvested Species)	(# Species)/(Hist.Avg.) + (Diversity)/(Hist.Avg.)
Diversity (Ecosystem)	(# Species)/(Hist.Avg.) + (Diversity)/(Hist.Avg.)
Rehabilitated and Protected Areas	Area Rehabilitated and Protected as % of Total Area
Ecosystem Understanding	Level of understanding [subjective]

**Table 3: Socioeconomic / Community Sustainability Indicators**

<b>Sustainability Criteria</b>	<b>Indicator</b>
Community Resiliency	Index of Diversity in Employment
Community Independence	Percentage of Economic Activity Based Locally
Human Carrying Capacity (Livelihood)	Current (or Potential) Sustainable Employment (relative to Population)
Human Carrying Capacity (Environment)	Natural Absorptive Capacity / Human Waste Production
Equity	Ratio of Historical to Current Gini Coefficients of Income and/or Food Distribution
Sustainable Fleet Capacity	Ratio of Capacity for Harvesting at MSY to Current Capacity
Food Supply	Food Supply Per Capita (Relative to minimum nutritional needs)
Long-term Food Security	Probability of Sufficient Food Being Available Over Next 10 Years

**Table 4: Institutional Sustainability Indicators**

<b>Sustainability Criteria</b>	<b>Indicator</b>
Management Effectiveness	Level of Success of Stated Management and Regulatory Policies
Use of Traditional Methods	Extent of Utilization
Incorporating Local Input	Extent of Incorporation
Capacity Building	Extent of capacity-building
Institutional Viability	Level of Financial and Organizational Viability

### What Policy Directions Promote Sustainable Fisheries?

This section focuses on four key elements required for sustainable fisheries: (1) reasonable *attitudes*, at the institutional level, about the need for management and the limitations of that management, (2) feasible management, which works in practice, (3) the adoption of precautionary approaches in fishery science and management, and (4) methods for coping with the complexity of fishery systems, both in research and in coastal development.

### ***Fishery Management: Recognizing the Need***

A sense of the world's oceans as limitless frontiers, containing abundant resources for all, has dominated much of history. Indeed, fishing has tended to attract those with a desire for the adventure of the hunt, an entrepreneurial "free enterprise" view of the world, and a dislike of regulations that interfere with the "business of fishing." This at least has been the experience of Western culture in recent centuries.

This perspective has diminished with time. As experiences world-wide show the folly of unregulated laissez-faire exploitation, its incompatibility with long-term sustainability has become apparent. Yet even today, there persists in many fisheries merely a grudging acceptance of the need for regulations to limit harvesting activity, combined with a widespread distaste for such controls. The conservation benefits of regulation remain in constant conflict with the freedom sought by fishers to travel the world's oceans in search of fish and profit.

Sustainability in fishery systems undoubtedly requires appropriate attitudes amongst fishers, a "conservation ethic." Yet more is needed. Appropriate "conservation first" attitudes are required not just on the part of the individual harvesters but throughout the system; in the scientific process, in the design of management measures, in the structure and operation of the fishery, and within the decision-making bodies (Charles 1994).

### ***Fishery Management: Recognizing the Limits***

While the need to control fishery exploitation has become generally recognized over time, it is only recently that the limitations on what is possible through management have emerged clearly. Indeed, the complexities and uncertainties inherent in fishery systems make it folly to assume that any such system is really "controllable" through management.

Fishery management has been driven, in many cases, by a "fallacy of controllability," a belief that more can be controlled in the fishery than can be achieved in practice. One manifestation of this fallacy of controllability is the widespread use of "quota management"—setting and enforcing limits on the total catch taken from each stock. While, in theory, this ensures that a firm limit is placed on what can be removed from the ocean, in practice quota-setting has left much to be desired.

First, the setting of quotas requires knowledge of the fish biomass, something that (due to the unfortunate habit fish have of living underwater) is never known with certainty. Secondly, quota management creates inherent incentives to harvest more fish than is allowed in the established quotas. This could be done by exceeding the quota (whether this be a TAC or an individual quota), "high-grading" to maximize the *value* of what is reported as caught (typically by discarding lesser-valued fish overboard), and/or dumping prohibited fish (so as to be able to continue fishing for other stocks). Finally, not only are quota controls difficult to calculate and to enforce, the anti-conservationist behaviour they induce decreases the quality of data (and biases that data) in the stock assessment process, thereby tending to produce faulty assessments of stock status, and over-estimates of feasible catch levels. While quota management does have its strong points, these various problems suggest that it may require greater controllability than is realistically possible.

### ***Feasible Management: Partnerships***

In most fisheries world-wide, management has been implemented in a centralized manner, typically through regulatory frameworks imposed "top-down," with limited decision-making power on the part of fishers and coastal communities. Indeed, regulators have often taken sole responsibility for conservation, while fishers are typically viewed as selfish profit-maximizers, driven to take as much from the resource as possible [in keeping with Hardin's (1968) *Tragedy of the Commons*]. Unfortunately, this assumption about fisher behaviour often became self-fulfilling; left outside the decision-making system, they indeed had no other role than that

of catching as much fish as possible. Pressure *increased* to “beat the system.” No level of enforcement, however extensive, was able to prevent illegal fishing.

Fortunately, fishery management is evolving today, as regulatory bodies come to realize that efforts at total control have failed to achieve conservation (Berkes et al. 1989). Fishers, their organizations and their communities must have a clear stake in managing local resources, a degree of decision-making power, and the responsibility (with government) to ensure the fishery's sustainability. Furthermore, when the fish in the sea are publicly owned, as in most national fisheries, the public (as resource owners) should play a role in management. An emerging focus in this direction is community-based co-management, the joint development and enforcement of regulations by fishers, communities and government (e.g., Berkes 1989; Pinkerton 1989).

### ***Feasible Management: Use Rights***

It has become clear that well-defined “use rights” are crucial to sustainable fisheries. Indeed, the greatest threat to sustainability comes in cases where use is unrestricted, as has been the case with high seas fisheries outside national jurisdiction. Various approaches are in place to define use rights—notably limited entry schemes and various forms of “quasi-property rights,” under which portions of the allowable harvest are allocated each year to individuals, fishing firms, communities or cooperatives. Rights might be market-based [e.g., “individual transferable quotas” (ITQs) which can be bought and sold (Clark et al. 1988)] or based on community institutions [e.g., TURFs—“Traditional Use Rights in Fishing” (Christy 1982)]. It should be emphasized, however, that restricted use rights do not guarantee sustainability. For example, ITQ systems may increase rent levels, but could actually diminish ecological sustainability, if incentives to maximize quota values lead to “dumping” (over-exploitation) of small or low-valued fish.

### ***The Precautionary Principle: Rethinking the “Burden of Proof”***

Fishery decisions must be made by balancing risks—the risk of stock and ecological collapse (due to excessive exploitation or environmental damage) versus the risk of lost economic benefits (if conservation measures are excessive). The fundamental question is: in considering these risks, does the burden of proof favour exploitation or conservation? In other words, is a precautionary approach to be followed?

The need to rethink the burden of proof arises both in the scientific realm and in fishery management. For example, given the complexities of ocean and fish dynamics, it is impossible to “prove” the common-sense idea that the future size of a fish population will depend on how many fish spawn in the present generation. This has had negative consequences, in the Atlantic Canadian groundfishery for example, where an absence of such proof meant that the scientific process paid relatively little attention to determining “healthy” levels for spawning stocks, and in fact omitted this consideration from “yield per recruit” calculations of allowable harvests.

On the management side, a controversial issue concerns the choice amongst “harvesting technologies,” and in particular the impacts of trawlers on long-term conservation. By its nature, trawling affects the ocean bottom habitat, yet the vagaries of the ocean make it virtually impossible to “prove” any negative impacts on the food chain and on ocean productivity. In assessing where the burden of proof should lie, a “Precautionary Approach” (Garcia 1994) might suggest minimizing the use of trawlers, even without definitive proof, yet this is clearly controversial since trawlers currently catch a large share of the ocean harvest.

A third example concerning the burden of proof in fisheries lies in the debate over causes of fishery collapses. It is not uncommon, in fishery collapses, to blame any available non-human cause. For example, when Canada's Northern cod stock collapsed in the early 1990s, initial government press releases made no mention of human impacts on the resource, instead stating that “the devastating decline in the stock of northern cod” was due “primarily to ecological factors” (Department of Fisheries and Oceans 1992). While to this day,

no one knows exactly what caused the collapse, there is growing evidence that over-fishing was in fact the dominant cause (Taggart et al. 1994; Hutchings and Myers 1994).

In heavily-exploited fisheries, a precautionary perspective would lead us to *assume* (unless shown otherwise) that human impacts are responsible for stock declines and that conservation actions should be taken to limit exploitation. Indeed, while the connection between fish population dynamics and the environment is certainly a complicated one, it seems that although ocean conditions might act as a “trigger” to initiate a stock collapse, the principal underlying cause of the collapse is more likely to be high levels of resource exploitation. The overall sequence of events may be as follows:

1. During periods in which ocean and environmental conditions are “acceptable” (from the perspective of the fish), fundamentally unsustainable harvest levels may *appear* to be sustainable.
2. Inevitably, and quite naturally, ocean conditions will deteriorate at some point (again from the viewpoint of the fish), so that heavily-harvested stocks are subject to additional stress—environmental conditions inhibiting growth and reproduction.
3. Faced with intense over-fishing, and a “trigger” in the form of an adverse environment, the fishery collapses.

This scenario seems to reflect experiences world-wide, from the British Columbia herring fishery collapse of the 1960s (Hourston 1978) to the Peruvian anchovy collapse, triggered by ocean cooling known as “El Nino” but due fundamentally to massive exploitation (Hilborn and Walters 1992).

#### ***The Precautionary Principle: Adaptive Management***

In some fisheries, annually-determined allowable harvests (TAC) are viewed as fixed and unchangeable within the fishing season. In the groundfishery of Atlantic Canada, for example, allowance was made “on paper” for in-season changes in response to new information about the stocks, but such changes were very rare. The focus was on a stable fishery, to allow firms to keep to their “business plans.” Any adjustment to the TAC was left to the following year. Even then, a so-called “50% rule” (Department of Fisheries and Oceans 1991) limited downward adjustments in quotas to just 50 percent of the scientifically-recommended cuts, to avoid disruption in the industry. (This gradualism did not apply in the opposite direction; if scientific analysis suggested an increase in the allowable harvest, the full increase could be made immediately.)

Such approaches need to be reassessed in an industry in which uncertainty is so pervasive, one in which no one can be certain how much of the key ingredient is available in any given year, nor the effect production will have on future availability of that input. A flexible, adaptive approach is needed. Fishing plans, and individual “business plans,” must be designed to adapt to unexpected changes in the natural world. A “conservation first” perspective recognizes that short-term stability in catch levels, while undoubtedly desirable, comes at the cost of longer-term ecological risks.

#### ***Coping with Complexity: Multidisciplinary Research***

The fishery is a highly complex bio-socio-economic system, with multiple species and a spectrum of fishers, as well as processors, distributors, marketers, consumers, and regulators. To deal with this complexity, there is a need for greater attention to multidisciplinary fishery research—from linkages between oceanographic and biological considerations, to research focusing on fishery management, fishing processes, fisher behaviour and the human dynamics of fishery systems. Promotion of such research has a substantial history (Andersen

1978; Charles 1991; Durand et al. 1991; Fricke 1985; Pollnac and Littlefield 1983; Pringle 1985). Recently, an advisory body to the Canadian Minister of Fisheries and Oceans—the Fisheries Resource Conservation Council—emphasized several of these themes in recommending a “new approach” to fishery research:

It is important that a multidisciplinary team approach be implemented in addressing fishery research questions—both in the laboratory and in the field.

It is important that a real move be made towards an ecosystem approach to fisheries management. The various bits and pieces of ecological knowledge must be reflected in a better understanding of the whole system. Thinking in terms of whole ecosystem must become an essential and integral part of day-to-day activities ...

It is important that scientists study fishing scientifically as a system and strive to better understand the relationship between fish (resource) and fishing (fishing practices, gear technology, capacity analysis, etc.). This must reflect the recognition that fishery science involves more than the natural sciences and that scientific research is a part of the development, implementation and evaluation of fishery management measures and economic policy tools.

It is important that a genuine thrust be made to give a more effective role in fishery science to those with practical experience and knowledge in the fishery, and the role must be rigorous and transparent. (FRCC 1994: 118)

Certainly, some progress is being made. For example, on the latter point, research partnerships are being developed in many fisheries around the world [such as the Fishermen and Scientists Research Society, a Canadian organization dedicated to conducting joint research and providing scientific training to fishers (King et al. 1994)]. However, there is much potential for more targeted research on these themes, a point highlighted in the United Nation's *Agenda 21* document.

### ***Coping with Complexity: Integrated Development***

Many coastal fisheries globally face a trio of fundamental problems: over-exploited resources, over-extended fleets, and a lack of non-fishing alternatives. Unfortunately, fishery policy has often ignored the latter problem, having been developed and implemented in isolation from other coastal and marine activity, such as aquaculture, shipping and tourism. For example, to deal with excess effort in fishing, emphasis is often placed on removing “surplus” fishers, without considering where these “redundant” people are to go. This tends to be unfeasible as a policy measure, since pressure on the fishery resource is often redirected through illegal channels. Generating employment alternatives is simply crucial to effective resource conservation (Smith 1981; Charles and Herrera 1993). To this end, fishery planning could be combined with community-based diversification, through so-called “Integrated Coastal Development” (e.g., Arrizaga et al. 1989). This could focus on creating employment alternatives that build economic strength within the community, taking advantage of local comparative advantages in ocean-related activity (such as development of alternative fisheries, fish farming, coastal tourism, and the like).

## **Discussion**

This chapter has combined a conceptual discussion of sustainability in fisheries with suggestions of practical policy directions. Key aspects of these themes, and a number of corresponding research questions, are summarized here.

### ***Sustainability Assessment***

A tentative framework has been provided for assessing sustainability, based on ecological, socio-economic, community and institutional components of sustainability, and use of quantitative indicators to evaluate the process of sustainable development. This framework is speculative in nature, and a clear need exists for practical testing to demonstrate the validity of the proposed indicators and the feasibility of measuring each indicator under varying circumstances. A number of research questions are also notable, such as:

What are suitable geographical boundaries for a fishery system within the process of sustainability assessment? Should these reflect ecological, economic, socio-cultural or political factors? Should emphasis be on the “natural” boundaries of coastal zones or on the *de facto* human boundaries?

Given that in a coastal fishery system, the socio-economic environment influences the “carrying capacity” of human activity, just as the natural environment determines the carrying capacity of the resource, how can one best measure indicators of carrying capacity, both natural and human?

How can one model the adjustment processes involved in shifting fishery systems between sustainability states (e.g., from one of non-sustainability, or one that is sustainable but unproductive, to a state in which overall sustainability has been improved)?

### ***Policy Directions***

A set of policy directions to promote sustainability has been described, focusing on (a) recognizing at the institutional level both the need for management and the limitations of that management, (b) developing feasible management approaches that are effective in practice, (c) adopting precautionary approaches in fishery science and management, and (d) developing methods for coping with the complexity of fishery systems, through multidisciplinary research and through coastal development. In developing management approaches in these directions, study is needed on:

What are the implications for sustainability of centralized versus decentralized management? Of state versus market-based versus community-based management? Of controls placed on fishing activities (effort) versus those placed on catch (“TAC”)? How does this depend on the nature of the fishery, whether small-scale community-centred or large-scale “industrial”?

What factors make a management system acceptable to the various fishery participants, so that conservation needs and management measures will be accepted and self-enforced?

Given the importance of marine fisheries as a source of food and livelihood, as well as their socio-cultural significance, it is clear that a prerequisite for sustainable use of the oceans is the active pursuit of sustainability in fishery systems. However, the inherent complexity of these systems, combined with the history of ecological, social and economic crises commonplace in fisheries around the world, makes this a challenging

task. This chapter has attempted to provide some policy measures to aim in the right direction, together with a framework for evaluating progress toward sustainability.

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# THE USE OF SATELLITE INFORMATION AS A MEANS TO PROMOTE PEACE IN THE OCEANS

*Guillermo Quirós*

## **Introduction**

Central America has left behind, to a great measure, the armed confrontations that tainted red the waters that wash ashore our coasts. One of the new challenges our nations face currently is to prevent the marine ecosystems and environments from degrading, preserving the resources for future generations. Therefore, to speak of *Peace in the Oceans*, for us, is to attune the commercial interests of large tourism and fishing industries with the need for subsistence of the coastal populations, and with policies arising from our governments and from international financial organizations. In this sense, the access that developing nations have been given to space technology over the last decade enhances our possibilities to study, characterize and analyze maritime zones and their resources with new means.

This is a specific case where there has been an accelerated development in information and communications technologies that can be used for projections to facilitate decision-making. The information must be updated and it must come from state-of-the-art data receiving platforms (satellites) intended for civilian purposes.

## **Satellite Information**

To understand why satellite data are of crucial importance for decision-making, the following immediate applications should be considered. Satellite technology can be utilized:

- to communicate environmental conditions to the public at large, by using images in the mass media;
- to monitor volcanic eruptions;
- to foster educational programmes in elementary and high schools, in order to strengthen the teaching of Natural Sciences and Geography, to motivate students and lead the younger generations into the space era;
- to prevent and mitigate natural disasters resulting from storms, hurricanes and volcanic ash propagation;
- to determine weather conditions and make the necessary forecasts;
- to guide fishing efforts, tracking schools of pelagics at early stages, or to stimulate recreational fishing;
- to chart safe air navigation routes, based on the existing knowledge about atmospheric conditions at 850, 500, 300 and 200 millibars;
- to programme tourism in coastal areas;
- to carry out ocean studies related to currents, in the water column and surface, wind characteristics and intensity;
- to determine the extension and characteristics of forest fires;
- to assess the ozone concentration in the atmosphere;
- to determine the intensity, quality and extension of plant coverage in large regions;
- to determine the characteristics of large oil spills in the ocean;
- to characterize the primary productivity of oceans; and
- to identify the extension and characteristics of contaminants dispersed on the sea surface.

## **The Nature of the Information**

The information available to developing countries comes from polar-orbit satellites, overflying the earth twice a day, which participate in the international *Earth Mission* programme, co-sponsored by the National Oceanographic and Atmospheric Administration (NOAA) of the United States, or they may come from fixed or geo-stationary satellites that rotate at the same angular velocity as the earth.

Geo-stationary satellites transmit images to the earth via electromagnetic waves on VHF bands and on microwave bands. The VHF signal is known as APT (Automatic Picture Transmission), is of low resolution (4x4 km), and is transmitted on two bands, one visible and the other infrared.

The GOES (from the North American oceanographic agency) and the METEOSAT (from the European space agency) satellites transmit diverse data previously processed. That is, these satellites, located at 36,000 kilometres above the earth's surface, prepare a complete image of the Earth's disk every half an hour, which is then sent to a receiving centre where it is processed and returned to the satellite to once again be transmitted as a two-band image, with a resolution similar to that of the APT signal (4 km). This satellite additionally retransmits meteorological data and image compositions of the polar-orbit satellites.

Ninety percent of the images used in the SISAT program come from NOAA polar-orbit satellites of the TIROS-N series (Television and Infrared Observation Satellite). These satellites travel some 825 km above the Earth's surface. Each satellite overflies at least two times a day, thus yielding four good quality images per day coming from the NOAA-12 and NOAA-14 platforms. (These satellites are called "polar-orbit" because they travel from the North Pole to the South Pole or vice versa.)

To fully receive the microwave signal, a mobile antenna is needed, capable of connecting to the antenna on board the satellite, following it along its path over the visible horizon. The receiving antenna of Costa Rica's National University is located at 9°59' North latitude and 84°06' West longitude at 1,150 metres above sea level. The visible area for this antenna runs from Southern Peru to the city of Atlanta in the United States, a distance of over 6,000 km in the north-south direction and a similar width in the east-west direction. Overall, 36 million square kilometres are covered, with a 1x1 km resolution on the five HRPT (High Resolution Picture Transmission) channels.

These satellites carry three basic instruments on board:

**The AVHRR sensor** (Advanced High Resolution Radiometer): with five receiving channels corresponding to five wave lengths, two channels on the visible, another on the near infrared, and two on the thermal infrared. These five wave lengths have different purposes. Channel 1 (visible), with 580 to 680 nanometres of wavelength, is used to forecast weather, to outline clouds and to monitor ice. Channel 2 (near infrared), 725 to 1100 nanometres, is used mainly to observe thawing, vegetation and agriculture. Channel 3, from 3550 to 3930 nanometres (thermal infrared), is utilized to monitor the sea surface temperature, evening clouds, volcanic activity, agricultural burnings and forest fires. Channel 4 (10300 to 11300 nanometres) and Channel 5 (11500 to 12500 nanometres) are used for ocean temperature and soil humidity, as well as for cloud detection.

**The TOVS sensor** (Tiros Operational Vertical Sounder) performs vertical soundings with active microwave transmitters at different altitudes over the earth, at 0 km, 1.5 km, 3 km, 5 km, 8 km and 15 km, giving information about the atmosphere's structure. For instance, wind, humidity, and atmospheric pressure are determined at these levels, as well as the ozone and precipitable water in the air column.

**The DCS system** (Data Collection System) gathers information coming from drifting (such as buoys) or fixed platforms, sensors on islands or remote regions of the planet. Usually the stored data are used to monitor ground, maritime, and atmospheric variables.

The processes occurring on the ground station include:

**Data-acquisition:** Because of the earth's gravity effects, the solar wind and other space variables that affect the movement of the polar-orbit satellites, the North American Space Agency (NASA) calculates daily diverse orbit parameters that are fed into the computer so that it can appropriately guide the antenna's movement. This guarantees a good reception, and for this reason it is necessary to enter, at least three times a week, the parameters needed to forecast, with a maximum error of 2 seconds, the appearance and disappearance of the polar satellites on the horizon. For the receiving antenna to connect to the satellite path, computer-driven servomechanisms are needed.

**Data-processing:** The process consists of ordering data according to algorithms programmed on the machine, so they may be interpreted as an image. This is an image coloured according to the taste of the researcher in charge of processing, and the parallels, meridians, coasts and continent are added. In other words, they are "geo-referenced" to offer a high quality product, to assist the fisheries, to monitor meteorological phenomena, shrub burning and forest fires, and to assist scientific research in physical oceanography.

**Data-distribution:** The image, once interpreted by the scientists, is compressed to a much lower resolution, with numerical values between 0 and 255, and in a standard computer presentation format, in TIF, GIF, RASTER formats and others, thus reducing its size from 1 million bytes (size of the processed image) to 200 thousand bytes (approximately one fourth). Although this is still quite large, it can be transmitted over conventional telephone lines with a mean velocity of 14.4 or 9.6 kbps, in a reasonable time frame (from 3 to 15 minutes) to the user's computer through an image distribution system or BBS (Bulletin Board System), or else, at high speed via Internet, in one minute or less. This image can be displayed on a personal computer by using a conventional software package.

## **Marine Resources**

The coastal areas are home to most of the earth's population. They contain the most diverse and productive ecosystems, they produce the largest amount of fish and they support a significant part of the agricultural, industrial and tourism activities in the world. Traditional management approaches have not been able to prevent environmental degradation. The return on investment has gone down, the production pattern is not appropriate and not sustainable, and the nations are wasting their resource assets. The growing intensity and variety of pressures exerted by development on the marine and coastal regions urgently demand integrated management strategies to face the problems that are ever more complex and interrelated.

Latin America's approach to coastal and marine management has not been much different from that of the rest of the world. Disorganized growth of tourism, poor development planning of the coastal lines, deterioration of the water quality, erosion, degradation and loss of habitats, and a drop in fish production, have been the consequences. However, as Latin America establishes its own national and regional programmes, it can tap the worldwide experience in coastal management.

## **Central America**

The prevailing characteristic of the initiatives to improve resource management in Central America is failure to recognize the gap that exists between planning and implementation. Even though the plans, regulations and laws have been adequately drafted and duly adopted, in general, effective action is lacking. The obstacles to effective resource management and to the sustainable interrelationship between the human population and the coastal ecosystems are many. For example:

- uneven authority within and among governmental entities;
- ambiguous jurisdictions among institutions;
- inadequate training to create and use integrated resource management techniques;
- shortage of budgets, physical equipment and personnel;
- lack of proper linkages between the need to sustain resource management and the incentives structure within the reach of government agencies;
- failure in not calculating long-term benefits and including resource management in decisions affecting their realizations;
- government centralization causing decisions to be made by persons not affected directly by costs; benefits are based on project implications; and
- control of central governments over financial resources and decision-making processes, which weakens the government locally.

### **Characterization of Our Coastal Reality**

Our countries are located on the narrowest section of America, and, as coastal countries, they enjoy many benefits, normally regular weather, including moderate temperatures and adequate rainfall. The territory is, however, exposed to events that could turn into catastrophes: hurricanes, tidal waves and changes linked to the variability of the planet's environment resulting from the massive release of thermal energy, the felling of forests, the poor toxic waste management, and the overall high pollution levels in the world. These must be analyzed in their appropriate context so that they can be better prepared for and to help mitigate their impact on human life, on coasts, on public services, on property and on the economy.

Tourist activities related to the ocean have led to the development of a series of events and investments that have generated wealth at different socio-economic levels. This applies especially to beach tourism—sun and sea—and water sports; diving, surfing, fishing, sailing, rowing, and water-skiing. But large investments in these activities are often made in areas that are also the core of fish production. It is therefore urgent to promote coastal regulatory systems enabling integral and sustained use of these delicate ecosystems. In other cases, hotel facilities are located in areas dangerous for swimmers because of the strong undertow currents or strong waves in certain parts of the year, or in coastal areas where hazardous or contaminating effluents are discharged. Due to the lack of stringent environmental regulation, port or marina construction may result in beach erosion that leads to imbalances negatively affecting human settlements, fishing and tourist activities.

Irrigation projects often open large areas for agriculture, and consequently agrochemicals may impact on the near-by waters and ecosystems. Large hotels and industries are established on the shorelines, altering the landscape and natural balance that thousands of small, low-income, artisanal fishermen depend on since they can no longer find jobs in agriculture.

Almost nothing is known about the ocean currents that directly affect fishing efforts, and there is no monitoring of any kind either on continental platforms or in the coastal areas. Also unknown is the relationship between currents and the dynamics of potentially exploitable marine species, as well as between these and sediment transfers. The difficulty in locating lost or drifting vessels also evidences the lack of knowledge.

### **Coastal Development**

The sustainable management of the delicate interface between continent and oceans is an arduous task. Lack of management has already led to degradation of the resources, jeopardizing their natural balance. What is needed, in the first place, are studies and assessments of these resources as a basis for rational management. Second, the strong socio-economic dependency of artisanal and semi-industrial fleets on the exploitation of marine resources should be considered.

Such studies must include the habitat of marine species and the interaction between environment and fish behaviour. Tuna, shrimp, and clupeoids (sardines and anchovetas) are species of a high commercial value, but they must be harvested selectively and sustainably if they are to improve the fishers' livelihoods. This, no doubt, would benefit large populations that live on both coasts of the Central American isthmus.

It is urgent for the region to promote the sustainable use of its many and rich coastal and marine resources through new technologies and on the basis of information that may assist in reducing the fishing effort. The competent international organizations must offer technical and scientific support, and pilot projects should be set up to serve as foundation for rational marketing in cooperation with business groups, organized consumers, producers and communities. Coastal management must cover not only fisheries but also industrial and urban development, tourism, land-based transportation and infrastructure, and it cannot ignore climate change and seismic events.

### **Case Study: The Application Of Remote Sensors To Sustainable Fishing Of Pelagic Species Of High Commercial Value**

Temperature is the strongest ocean variable that limits the environment of fish and determines their behaviour. To study that behaviour as determined by temperatures is therefore vital to get a good catch. Sea temperature studies have been made in the region, helping to identify thermal characteristics as well as the depth and thickness of the thermocline.

In general terms, when the thermocline is not very thick, it is called a "developed thermocline." In such zones, catches are high. Since the thermal barrier between the fish and their food is very small, pelagics show a "preference" for these regions. Ocean phenomena, such as the thermal dome and the large Meso-American eddies cause significant alterations in the water column, from around 500 metres up to the surface, and these are of fundamental importance in determining the depth and thickness of the thermocline and, therefore, the catch indices.

Our knowledge about the characteristics of the regional ocean phenomena, including marine currents, the effect of hurricanes, the coastal surface zones, and the dynamics of the enormous Meso-American eddies is greatly enhanced today thanks to the use of remote sensors put out in space. Additionally, the new generations of polar satellites, like the Sea-Star, will provide better information about the primary productivity of our oceans, about oil spills, and the motion of sediments and contaminants from the coast. Thanks to this technology, in the very near future we will know more about the large regional ecosystems and thus we will have better arguments for preserving them.

This knowledge, although incipient, allows the advanced artisanal Costa Rican fleet to capture high value commercial species, such as yellow fin tuna, which traditionally had been fished only by the international purse-seiners. For the first time in our history, we have been able to compete in the vast ocean for products both in and out of the Exclusive Economic Zone.

The progress, slight for the time being, has encouraged small Costa Rican entrepreneurs to invest in this new sector, motivated by the knowledge that the financial return is better than that from the over-exploitation of the inshore and near-shore resources. As a result, the fishing effort in these sensitive areas has been decreasing, and there has been a shift from shrimp fleets to long-line vessels. Line-fishing, furthermore, targets adult fish, and is highly species-selective, depending on the bait.

The SISAT project promotes the participation of small fishing businesses, stimulates the catch of species in deep waters, has led to a reduction in the fishing effort in coastal areas, and at the same time has encouraged the study of the ecology of large pelagics in the region. In the near future the rational and sustained use of these resources by artisanal fishermen of coastal nations can begin, terminating the exclusiveness that international fishing companies have enjoyed to this date.

If the governments support this technological shift, it will be possible to:

**Utilize the resource more profitably:** A 50 kg fresh tuna will yield the artisanal fisher \$500 and \$300 to the national exporter. This money is invested in the country that owns that resource. In the meantime, the international company gets \$50 for that same product frozen, only five percent of which goes to the country that issued the permit (without considering the question of fishing by pirate vessels which are common in the region).

**Decrease the fishing effort:** It is not necessary to capture 800 to 1200 tons of tuna (equivalent to \$1 million) to have high financial returns. An advanced artisanal long-liner only needs to catch 2 to 3 tons to get a good profit.

**Reduce or eliminate by-catch:** That is, fauna associated with the environments tuna swim in, including dolphins, turtles, sharks, rayfish and others.



## ENVIRONMENTAL SECURITY IN THE OCEANS

*Alicia Bárcena*

Let me at the outset thank you for inviting me to participate in this XXIII Annual Conference of Pacem in Maribus, on the occasion of the 50th anniversary of the United Nations. I welcome this opportunity of paying tribute to the International Ocean Institute and particularly to Elisabeth Mann Borgese for her visionary leadership in promoting the Law of the Sea and a sustainable future of the oceans which is equitable, economically feasible and environmentally sound.

I would like to share with you some reflections on the environmental dimensions of human security and the indispensable role of the oceans as well as the enormous contributions of the Law of the Sea and the UNCED process in this context.

I had the privilege to actively participate in the preparation of Chapter 17 of *Agenda 21*, up to the Rio Conference of 1992, also known as the Earth Summit. Afterwards I was again fortunate to be part of its follow-up from an independent perspective in the Earth Council, an international nongovernmental organization headquartered here in Costa Rica. During both phases I worked under the leadership of Maurice Strong.

Rio was an important step forward and provided the basis for a global transition to a new mode of development that is sustainable in environmental and social as well as in economic terms. Rio was without doubt a remarkable political event marked by the presence of heads of state and government as well as nongovernmental organizations. Although it is too early to judge what will be the real impact of this historic event, it is timely to reflect on the lessons we have learned from Rio—and from other global post-Rio gatherings such as the Population Conference and the Social Summit—and to assess the prospects for the realization of the new hopes it engendered and new directions it set for our common future.

I must confess, however that the prospects for implementation of the principles contained in the Rio Declaration and the action programme incorporated in *Agenda 21* are not encouraging. Clearly there is a tendency to lapse back to business as usual, particularly in light of the immediate and pressing political and economic concerns with which virtually all governments are preoccupied. In particular, prospects for the large scale commitments of new and additional financial resources required for the implementation of the Rio Agreements are beset with more difficulties today than ever. Never have the rich felt so poor. The annual replenishment of two billion dollars for the Global Environment Facility (GEF) which was launched by the World Bank, UNDP and UNEP is not sufficient and represents only a small portion of the daily capital flows of more than one trillion dollars in the financial markets of the world. The GEF was supposed to be the principal conduit for new finances, particularly for those called for under the Conventions on Climate Change, ozone depletion and Biodiversity and more recently on Desertification, which is still under debate. Major donors are reluctant to commit new funding from the original Official Development Assistance of 0.3 percent of their GNP to 0.7 percent as agreed in Rio. This promise has not been fulfilled. Contributions even have been reduced by ten percent in the last two years. Political commitment to the environment has eroded at home and in relation to foreign assistance, particularly in some developed countries like the United States.

The UNCED process evolved at the time of other unprecedented developments in human history. The demise of the Cold War brought new dimensions to international relations and to multilateral cooperation. The geopolitical order of the world was superseded by the emergence of geo-economic blocks responding to trade realities. The changing nature of money from metal, to paper to electronic means has inextricably linked the access to information and the access to capital. If you have one you have the other. In practice we are still in a bipolar world, divided into two groups of people: the excluded and the included. The poverty gap is growing and today, more than a south-north debate, we are experiencing a tremendous and growing gap in terms of access to capital, to information, to technology, to equal opportunities.

The free market and free trade are generating institutional responses that are not in line with the expectations of people. Governments are in the process of privatization to respond to the demands of a highly competitive market and are focusing less and less on issues of common interest. Capital, knowledge (information) and technology are no longer in the hands of governments and are beyond its control and understanding. Capital flight and the uncertainty of the stock markets are determining the stability, or instability, of countries. People are not understanding why their situation changes day by day and why their money is not enough, particularly in developing countries which have become so vulnerable to external capital and investment. As I pointed out previously, every day one trillion dollars worth of currency is bought and sold on the world markets to make money. Yet nothing of real value is added by the process, while fortunes and even the stability of entire countries (Mexico is an example) are lost at the mere mention of a "loss of investor confidence." Power is being centralized in few hands and we are entering into a phase where private monopoly and the role of transnational corporations (TNC) will be more important than ever. The growing importance of the role of transnational corporations necessitates a revision of international frameworks in which they should be clearly incorporated as subjects of international law and be held accountable. Nonstate actors such as nongovernmental organizations are emerging as important players in the international and national community, particularly those interested in working in the public interest and in developing the concepts of the common good. Many of them feel that governments are bowing to private interests and that public interest is in jeopardy.

Another relevant feature of these challenging times of change can be identified in the area of high technology and informatics. The information revolution has been concentrated in few hands, at least as far as the mass media are concerned. Television, for example, is changing the aspirations and consumption patterns of millions of people at the very heart of the family and community level. Even the poorest household in Nicaragua has access to CNN, and thus the few, from Atlanta, Georgia, inform the majority in the poor countries, and we can switch from a foot-ball match to Bosnia or Rwanda or the Somalia tragedy in seconds. We are losing our capacity for indignation. Television has brought home the realities of international crime and the uncertainties of international markets.

This phase of the industrial revolution has produced a significant shift from the productive sector to the service sector, a sector which is less resource intensive and requires less and highly-skilled labour. This has marginalized and displaced many people from the market, both in developed and in developing countries. Thus, people feel more insecure and confused than ever. Fundamentalism, religion and ethnocentrism are merging and proliferating as a response to the search for identity and uniqueness. The multiplication of ethnic and regional conflicts since the demise of the Cold War has not produced a peaceful and secure world. It has changed the nature of the superpower conflict into a more intra-state and local conflict, in many cases triggered by the scarcity of the natural resources at hand.

The globalization process is disempowering people at the local and the community levels. They have lost, or are rapidly losing, control of their own processes. Globalization of the economies means that the economies are no longer tied to a place or a society. Economy is a primary concern of people: they are more aware of it than of the environment. Democracy may be increasing but people's choices are not. In the environmental field people at the local levels have not yet understood the linkages between their local realities. Global warming, sea level rise, deforestation and desertification are threats that are beyond the understanding and control of millions of people.

We are entering a new era of human security where the entire concept of security is changing dramatically. Security is now interpreted as:

- security of people, not just security of territory;
- security of individuals, not just security of their nations;
- security through development, not security through arms;

- security of all the people everywhere—in their homes, in their jobs, in the streets, in the communities; and
- security of the environment which can be threatened by the scarcity of resources, conflicts of use of natural resources (land, coastal areas, fisheries etc.), migration due to environmental causes and climate change.

A second perception is changing: Human security is now regarded as universal, global and indivisible. The same speed that is bringing many modern products and services to our doorsteps has also brought much human misery to our homes.

And yet another perception is changing: environmental degradation cannot be stopped at national borders. Poor people can be stopped but not the causes and consequences of their poverty of which many are of an environmental nature such as pollution, deforestation, drugs, AIDS, pollution and terrorism.

We need to fashion today a new concept of human security that is reflected in the lives of our people and not in the weapons of our country: a concept that should serve as the new basis for a human world order. In this context we have seen, even before Rio, a search for a new concept of development:

- development which means not just to become bigger, but to become different;
- development which unfolds the potential of human creativity and ingenuity;
- development which celebrates natural and cultural diversity and which replenishes natural resources for future generations and enhances human life; and
- development which treats GNP growth as a means and not as an end and which distributes income equitably.

Development cannot be disentangled from peace. The Agenda for Development and the *Agenda for Peace* must be given equal importance and financial support. In this regard the *Agenda for Peace* mentions the environment in the context of early warning systems. Preventive diplomacy, as stated in the *Agenda*, requires risk reduction, fact finding—which in the case of the environment is essential—and early warning with regard to environmental threats. The risk of nuclear accidents, mass movements of populations, famines and diseases is explicitly mentioned in this context.

I am convinced that there is some basis of hope in the results of the Earth Summit: that Summit laid the foundations for a change in public attitudes and political mind-sets; it enhanced recognition of the urgent need to invest in global environmental security. It is through *Agenda 21* that I personally found that the concept of sustainable development, so difficult to understand theoretically, could be disaggregated in programmes and actions that place the environment at the heart of economic decision making. “Sustainable development” is not synonymous with “environment” as many people think. “Environment” is probably the factor that generates a new dimension in conventional economics and social considerations. But sustainable development, from my perspective has 5 indispensable dimensions. Some people call it “the 5 Es”: Ethics; Economics; Equity; Ecological Integrity; and Empowerment. None of these should be sacrificed to the others.

On the ethics side, I believe that there is an urgent need for a value change that will do away with the double standard of conduct that exists in the world today. In the realm of food production, for instance, developed countries are pushing the developing world to open their markets to free trade and liberalization while they are not willing to give up their subsidies. They are today more protectionist than ever. In the OECD countries for example energy subsidies last year amounted to 300 billion dollars and in Europe alone, 120 billion dollars were spent in agricultural subsidies. This unfair competition is at the heart of the trade debate. The ethical debate is bringing together ecumenical groups, human rights groups and environmental organizations in search of a set of universal values that can revitalize the unfinished task of the Earth Charter that started at Rio.

There is an urgent need to find a new economic regime (the second dimension of “sustainable development”) which

- establishes more equitable financial and trading systems;
- lends support to more sustainable uses of natural resources;
- fully values nature and human resources and does not devalue the human value;
- promotes trade of surplus of natural capital and does not encourage more deficit of natural capital stocks; and
- is based on rates of restoration and reproduction, at least in renewable resources.

This is clearly possible in the case of fisheries and forestry. But it cannot be accomplished on the basis of simply adding to existing policies or budgets. It requires a fundamental reorientation of policies. It requires new systems of incentives and penalties, including international taxation, which motivate economic behaviour and new patterns of consumption and production.

Another area of incredible importance is the area of energy efficiency which will determine the real transition towards sustainability. It is in the revision of perverse economic incentives on energy that considerable progress can be made.

Equity is at the heart of the concept of sustainable development—equity within generations and between generations. There would be something clearly immoral about sustaining the present levels of poverty. Indeed global security without social justice is an elusive dream. Again, the policy and political implications are profound. Equity in opportunities requires many structural reforms:

- better distribution of productive assets, including land and access to credit; and
- policies for job-creation and social safety nets for those who are bypassed by markets, capital and technology.

It is in these areas, where inequities are caused by the current model of development, that we are facing enormous challenges of environmental justice and where there are enormous gaps that we need to address. The most controversial examples are in the realm of agriculture and aquaculture. For instance, pesticides banned in the North are exported by transnationals to the South. Hazardous wastes of the North are dumped in fishery areas in the seas of the South. Many of us still remember the case of Peru when a foreign vessel contaminated important fishery sites causing an epidemic of cholera.

We need to preserve, not only individual resources, but the ecological integrity of natural systems. We have to provide conditions for ecosystems to regenerate, to maintain their resilience, their capacity to recycle nitrogen, carbon and water, to preserve their genetic variability and integrity. In this regard we need to revisit the concept of environment linked to pollution of the seas and coastal areas. We need a more integrated approach to maintaining the most fragile sites on Earth which are the interface between the land and the sea.

In this regard, one should stress the mutual dependence between *Agenda 21* and the Law of the Sea Convention. There is no doubt that Chapter 17 of *Agenda 21* is based entirely on the Convention and particularly on part XII of the Convention which covers all uses and all regions. The chapter recognizes the value of more than 100 agreements based on the Convention of the Law of the Sea by both IMO and UNEP at the global and regional levels which further develop the framework of environmental protection from all sources of pollution: shipping, dumping, sea-bed activities, areas under national jurisdiction, land-based sources, atmospheric sources, etc. Chapter 17 deals basically with:

- integrated coastal zone management;
- marine environmental protection;

- fisheries and sustainable use of marine living resources both in high seas and under national jurisdiction;
- critical uncertainties, and under this heading it deals with the precautionary principle based on best available technology, best environmental practice and clean technology;
- international and regional cooperation; and
- sustainable development of small island states.

UNCED put particular emphasis on the need for an integrated approach to coastal management including land as well as the inclusion of land-locked states in regional seas programmes. Particular importance was given to small island developing states (SIDS), which subsequently led to the Barbados Conference of 1994. Vulnerability is at the heart of the problem. Around 40 SIDS have formed an alliance based on environmental and economic security concerns.

An action plan for SIDS was approved with 14 priority areas: climate change and sea level rise; natural and environmental disasters; management of wastes; coastal and marine resources; freshwater resources; land resources; energy resources; tourism resources; biodiversity; national institutions and administrative capacity; regional institutions and technical cooperation; transport and communications; science and technology; human resource-development. Disaster prevention is very crucial for island states, and the International Red Cross, for example, is interested in cooperating.

Negotiations on ocean issues were among the most difficult during the UNCED process, particularly those related to marine living resources and more specifically those relating to marine mammals, high-seas fisheries (highly migratory and straddling stocks) and Antarctica. But compared to the subject matters of the other chapters of *Agenda 21*, the ocean issues have much more history and experience to draw from. The Law of the Sea Convention is the very first international convention on sustainable development, trying to balance the interests between developing and developed countries.

Coastal development was addressed mainly as a security issue that requires conflict resolution mechanisms to harmonize conflicting uses such as tourism, fisheries, port and industrial development, among others and which requires the participation of all actors involved at the local, provincial and national level. In this context, innovative proposals such as a tax on tourists, should be carefully explored. Recently an agenda was produced by the Earth Council, the World Travel and Tourism Council and the World Tourism Organization.

Scarcity of resources is another crucial matter for environmental security. In this regard the draft Convention on straddling stocks and migratory species signifies a new development of the Law of the Sea. However, in the area of dispute settlement and the interaction between the fisheries and other uses of the sea more work is required.

Scarcity is in many ways linked to overcapacity, inadequate scientific information, failure to take conservation measures and inadequate enforcement as well as an inefficient regimes for measurement, monitoring and cooperation. The Straddling Stocks Agreement recognizes the interdependence of the Exclusive Economic Zone (EEZ) and the high seas, the need for an integrated approach, the importance of regional cooperation, and the responsibilities of port states to move from enforcement of environmental regulations to fisheries regulations. This is a further development of the Law of the Sea.

We need to revisit the legal and institutional regimes that exist at the global level. The Law of the Sea (1982) with its highly innovative values needs to be revisited in the light of the new global conventions and the Rio Agreements, particularly *Agenda 21* and the Conventions on Climate Change and Biodiversity. They can be used to reinforce each other. The UN Convention on the Law of the Sea offers an equitable regime which takes into account the needs of developing and developed countries; responds to the challenges of interdependence and wholeness of the ocean while considering the close interrelationship of all major uses of the ocean; deals with its conservation and offers a framework to address the concept of sovereignty in this era

in which states feel so threatened by globalization. It provides an innovative approach to the concept of the common heritage of mankind.

This concept should be applied to the Conventions of Climate Change and Biodiversity and with this will contribute enormously to finding an exit from the catch-22 situation in which we are failing to solve the controversial issues of property rights *versus* biosafety. Many developing countries have considered for centuries their genetic patrimony as a common heritage of humankind—particularly the indigenous peoples. Now this is being challenged by the free-trade pressures and the need of the transnational corporations to stamp their labels on the genetic resources. In the same way, proposals are afloat for the creation of a global carbon dioxide emissions trading system that will carry us into a new era of trade conflicts and environmental barriers. The common heritage of mankind concept contained in various articles of the Law of the Sea Convention offers a way out since resources which are the common heritage cannot be appropriated by any state or legal or physical person. These common goods are nonproperty in the private and conventional sense, but the concept also implies management through an authority representing humankind as a whole. In this regard the Global Governance Commission promoted an excellent idea. It proposed the transformation of the Trusteeship Council of the United Nations into a global Council in trust and stewardship of the global commons. It should provide new thinking as to the economics of common heritage, reserving it for exclusively peaceful purposes and protecting it for future generations. This will be needed, as Elisabeth Mann Borgese stated in her recent book on *Ocean Governance and the United Nations*: “The economics of the common heritage will have to be based on a new value system ... with the confession of uncertainty and the admission of vulnerability.” It celebrates diversity since it “admits that there are many truths” (1995: 244).

The concept of common heritage of mankind is well established in many religions and philosophies and is at the heart of the discussions today towards developing an Earth Charter. The contribution of the Law of the Sea in this regard is immense and it was without doubt Arvid Pardo who gave legal content.

The Law of the Sea offers a framework at the global level to deal with private/public international cooperation. This is today more needed than ever to give legitimacy to the consideration of the private sector and the multinationals as subjects of international law. However, much work is still to be done in this the most controversial part of the Convention which reflects the state of the world in terms of economic realism.

The post-UNCED realities are facing us with challenges and opportunities, such as:

1. The new institutions that are emerging in the wake of UNCLOS/UNCED decisions, Conventions, etc.: the International Sea-bed Authority, the International Tribunal for the Law of the Sea, the Regional Centres for marine science and technology (mandated by the Law of the Sea Convention, but yet to be established), the Commission for Sustainable Development (CSD), the UN Department for Policy Coordination and Sustainable Development.
2. The changing relationship and growing interdependence among the actors on the international/national scene: governments, TNCs, the Bretton Woods Institutions (the trinity World Bank, International Monetary Fund and World Trade Organization(WTO)) and many NGOs of great importance such as the fisher workers alliance, etc.
3. The need for better coordination among the UN agencies working on marine issues and, at the same time, for incorporating marine issues in WTO and the World Bank where they have been generally neglected. The 1996 CSD revision will help to further develop this interest. However it is the restructuring of the UN itself that needs to be our main target. It should establish a sort of ocean assembly of people involved in ocean issues. This should bring to the table the civil society, the scientists, the private sector, the industries, the regional organizations and the banks. Within this framework, the Independent World Commission on

the Ocean should provide new thinking for linking the Law of the Sea and the UNCED process and advance the concept of environmental security and justice.

4. Evolving regional cooperation mechanisms: the Central American Alliance for Sustainable Development, NAFTA, the creation of regional commissions for sustainable development in the framework of regional seas programmes. The regional perspective also is needed for joint regional surveillance and enforcement that will help poor developing island states to survey their vast ocean spaces. This concept of regional joint surveillance has emerged forcefully in the draft Convention on Straddling Stocks and Highly Migratory Stocks for the conservation of fisheries in the high seas.
5. Denuclearization of regional seas by implementing the Treaties of Tlatelolco and Rarotonga as well as the Antarctic Treaty. The concept of reservation for peaceful purposes should be extended to other sectors. In this regard the Central American Alliance is ripe for the development of a zone of peace.
6. In the national context, there is a need for integrated planning and decision making in the marine sector. Conflicting laws have to be harmonized; departmental policies must be coordinated trans- sectorally; municipal authorities should also be involved.

If a "bottom-up" rather than a "top-down" approach is to be adopted in accordance with *Agenda 21* and the entire intergovernmental and nongovernmental literature on sustainable development, the community level is really the crucial level at the end of the day. Human security will only be achieved at the level of people. People can protect themselves with a new sense of solidarity. Security at this level must provide a combination of opportunities for employment, environmental quality and productive options, equity and community accountability. We need to become again powerful and nationalize our capital, our technology and our means of information and communication. We need to reconstruct our social fabric bottom up and re-start to reconstitute again our provinces and our nations. This and only this will lead to a strong international community with a human face and under the command of nature.

# THREATS AND IMPEDIMENTS TO MARINE ENVIRONMENTAL SECURITY

*John H. Vandermeulen*

## **Introduction**

Recent discussions and debates involving the subject of environment now almost invariably include the intimate linkage between environment and economy—in particular in the context of north-south dialogues. The Stockholm Conference was the first global occasion to firmly establish the environment as of prime concern, not only for this generation, but for future generations—the concern being over the continuing availability of the world's resources, in particular the nonrenewable resources. The subsequent discussions under the aegis of the Law of the Sea Convention, and most recently the "Rio Earth Summit," have continued to bring environmental concerns to the forefront. Also in practical terms has the concept of "environment" made its mark—as, for example, in the inclusion of a statement on environmental impact assessment for many if not most projects now funded by the World Bank, and by other responsible organizations. One would suspect then, from these evidences—rhetorical and practical—that the concept of environmental integrity is well established, and well understood.

Certainly within the marine environment, environmental integrity has been the subject of great debate, in the contexts of overfishing, outlawing of drift nets, coastal infilling for artificial islands, coastal pollution, and the disposal of radioactive materials, to name a few. The Law of the Sea (LOS) in fact specifically addresses several of these, and it is the contention of the background paper for this particular conference, that the LOS can well serve as a working model for the UN Secretary-General's *Agenda for Peace*. Indeed, it is argued in the background paper that environmental security is equally as important and critical to international peace and peace-making as are the more traditional objectives of economic and military security. I could not agree more, if environmental security means that the integrity of the environment is maintained, both against external but also against internal threats. I visualize both threats because the concept of "environment" has changed radically since we were first introduced to it in the international forum in Stockholm. I will speak to this changed concept later in this chapter.

Speaking specifically of marine environmental security, how easy is it to attain this "security"? Or, reversing the question, and if we agree that environmental security is essential, then "what are the impediments to attaining marine environmental security"? In this chapter I will identify and address some of the hazards to marine environmental security. I will argue these points from the view of an integrated perception of our global ecosystem. I will also put forward some suggestions for action that are meaningful in the context of that broad integrated view of our world.

## **Discrete Hazards to Marine Environmental Security**

### *Altering Sediment Integrity in the Coastal Zone*

Possibly the oldest impact on the integrity and productivity of the coastal zone has been the export of sediment and other organic material from the hinterlands via rivers and streams into the nearshore marine environment. In earlier times this process was controlled naturally: the rates of sediment transport were modified by hinterland vegetation, and distributed by nearshore coastal currents, i.e., the scale of sediment generation equaled the scale of sediment redistribution; the interactions were marked by a direct cause-effect relationship, and were identifiable within coastal dimensions. There are now numerous examples of large-scale land-sea related impacts where the land-based cause and the ocean-based effect have become separated, but remain inextricably linked.



A case in point is the regression of the west African coast line as a direct result of human intervention in upland sediment transport. Giant dam construction (in part supported by the World Bank) was carried out in the mid-1900s on the large West and Central African river systems for the purpose of generating hydroelectric power and water for irrigation. What was not anticipated at that time was that the dams would interrupt the normal and continuous long-term transport of sediments from the distant highlands via the rivers into the west African offshore, where their deposition continuously countered the erosional forces of the major Atlantic wave system.<sup>1</sup> While there are other contributing factors, the loss of this continuous riverine output of the highland sediments is a significant contributing factor to coastal erosion problems experienced in West Africa today.<sup>2</sup>

The second example concerns the maritime state of Mauritius which is faced by erosion of its lagoonal onshore coastlines. Largely as a result of aggressive tourism development and the large scale construction of hotel and other buildings, a considerable amount of lagoonal and beach sediments were removed. However, the rate of removal of the largely coralline beach sediments was much greater than the rate of production and replacement of these same sediments from their natural sources, the nearby coral reefs. This, together with uncontrolled damage to offshore coral reefs (for example, reef-blasting), has effectively removed the beaches as the energy-absorbing buffer with the result that some of the coastline is now buffeted directly by the forces of the Indian Ocean with the full likelihood of continuing degradative erosion of beach frontage.

These examples are of particular interest in that they demonstrate two aspects of human intervention in natural oceanic processes. First, the potential effect that human intervention, both negative and large, can have in natural physical oceanographic processes that were either poorly or not at all understood. Second, that human actions far inland can produce drastic consequences well beyond the immediate site of activity.

### ***Coastal Populations and Environmental Security***

Paul Ekins<sup>3</sup> lists his eight great environmental problems as being the greenhouse effect, acid rain, depletion of the ozone layer, deforestation, desertification, water depletion, species extinction, and poisoning of land and water by pesticides, herbicides, and toxic wastes. To those I add the urbanization of the coastal zone. It is estimated that, by the year 2000, 70 to 75 percent of the world's human population will be living in the coastal zones of the world's oceans.<sup>4</sup> Indeed, in some regions of the world this number is already undoubtedly exceeded—namely Australia, Malaysia, Singapore, Philippines, Costa Rica, Caribbean islands, several of the South Pacific islands, island states in the Indian Ocean, and several West African states, to name a few.

The implications for the coastal environmental security are several, involving pressures on living coastal marine resources in the form of pressures on coastal fishery, on non-living resources in the form of raw

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<sup>1</sup> M. Collins and G. Evans. *Coastal erosion in West and Central Africa*.

<sup>2</sup> A direct parallel is the effect of the Aswan Dam (Egypt) which has interrupted downstream silt movement, with the result of lower downstream productivity, erosion of the Nile delta, altered offshore fisheries, and saltwater invasion into coastal aquifers. R. Allison. 1992. "Environment and water resources in the arid zone." In *The Environment in Question. Ethics and Global Issues*. (D.E. Cooper and J.A. Palmer, eds.) Routledge, London and New York. Pp. 94-115.

<sup>3</sup> P. Ekins, "The sustainable consumer society: a contradiction in terms?" *International Environmental Affairs*, pp. 242-58.

<sup>4</sup> United Nations, 1985. *Estimates and projections of urban, rural and city populations, 1950-2025: the 1982 assessment*. New York, United Nations.

resources for building materials, on space, and inevitably on coastal water quality through pollution from human and other waste sources.

The phenomenon is seen at its worst in the growth of coastal megacities, most of which grow up or emerge on river mouths and deltas.<sup>5</sup> In these, the problem of environmental security becomes infinitely linked to the question of where the dividing line lies between acceptable and un-acceptable quality of life. Megacities are in fact a distinct part of the global landscape, and indications are that the phenomenon continues in Rangoon, Ho Chi Minh City, Surabaya, and others. In such situations, the growth of the population far outstrips the availability of critical natural resources such as availability of fresh water and a means of disposing of raw sewage, and instead salinization and contamination of drinking water become a constant of life.

### *Loss of Natural Coastal Marine Resources*

Often disregarded in earlier analysis of marine health, but now a common concern, is the role of such other environmental influencing factors as temperature, fresh water input, and siltation.<sup>6,7</sup> Changes in temperature or salinity, such as from coastal power generating facilities or by altering land-based watershed flows, can have profound effects on coastal ecosystems, especially in enclosed or shallow coastal waters (for example, reef flats). Thermal loading of coastal waters is a particular problem in sub-tropical and tropical regions where in the summer months many marine species are already close to their biological temperature maximum.

Coastal urbanization and other development can seriously impact on near and off-shore marine environments, primarily through sediment runoff. Uncontrolled developments and construction, clear cutting of coastal forests, and even deforestation along watersheds far inland all enhance the movement and transport of sediment from land to ocean. This makes siltation one of the fastest growing coastal management problems, as coastal modifications (and inland deforestation and development projects) parallel population increases in these areas. Coastal wetlands are under tremendous pressure globally as the result of urbanization, in-filling for industrialization projects, and use as disposal sites for solid wastes, sewage, and dredge spoils. The tropical wetland equivalent, the mangal, is in steep decline in a number of regions because of reclamation for agriculture and aquaculture (for example, shrimp farms in Ecuador, Philippines), rice production, tin mining, charcoal production, polewood for construction, and recreational overuse.

The disposal of harbour dredging materials in this respect presents a hybrid problem from the point of view of the receiving environment—one of sediment disposal plus the discharge of potentially toxic metals and organic compounds. Whereas dredge disposal is generally perceived to occur offshore, in fact this is not always the case. It is estimated that up to 27 percent of a global 1.3 billion metric tonnes of dredged sediments are disposed of annually within estuaries and in wetlands, some negligently, some as part of deliberate infilling programs.<sup>8</sup> The loss of coastal wetlands is not merely cosmetic, as these represent a principal source of coastal marine productivity by producing and exporting carbon and inorganic and organic nutrients into coastal waters.

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<sup>5</sup> It is estimated that by the turn of the century there will be 21 “megacities” with populations of 10 million or more, of which 18 are located in the world’s coastal zone. Eighteen will be in developing countries.

<sup>6</sup> For this chapter, we use the broader definition of “pollutant”, i.e., a substance or organism present in a waste, or a property of a waste (acidity, heat), that has the potential to affect marine resources or humans. U.S. Congress. 1987. *Wastes in Marine Environments*. Office of Technology Assessment OTA-0-334. Washington, DC. 312 pp.

<sup>7</sup> Ch.A.S. Hall, R. Howarth, B.Moore III and Ch. J. Vorosmarty. 1978. Environmental impacts of industrial energy systems in the coastal zone. *Annual Review of Energy* 3:395-475.

<sup>8</sup> U.S. Congress, *op. cit.*, p. 73.

**Coastal Pollution**

The most common linkage between the environment and health is that of pollution—including a large variety of contaminants that enter into the oceans daily, from numerous non-point and point-sources.<sup>9</sup> They include petroleum and petroleum products, pharmaceuticals, metals, organic synthetics, pathogens, sewage, other wastes, plus a wide range of inorganic and organic compounds.<sup>10</sup> These originate from a wide range of sources—domestic, municipal, and industrial. This traditional scope has broadened, however, as industrial and agricultural practices have become more complex and intrusive.<sup>11</sup> Thus added to these lists there are now also fertilizers, herbicides, and pesticides from agriculture operations and indeed pharmaceuticals in medicated feeds from aquaculture operations.

The discharge into marine environments of those organic compounds with biological activity is of particular concern, especially such products as pharmaceuticals, their laboratory precursors and certain oil products.<sup>12</sup> These not only pollute, but they can biochemically affect life processes through metabolic interactions, not only of individual organisms but even at the larger community level. For example, continuous dumping of pharmaceutical wastes, between the early 1970s and 1981, at a designated Pharmaceutical Waste Site, 74 km offshore from Puerto Rico, has been linked directly to an invasion of several human pathogens into the resident bacterial community.<sup>13</sup> Ecological shifts have also been reported, evidenced by changes in the composition and size of the phytoplankton community in the vicinity. Dumping ceased in 1981, in favor of waste discharge through a secondary sewage treatment plant. But, because the treatment process is incomplete, and is frequently disrupted, and because discharge is now closer inshore, very obvious concerns are raised over human health impacts from the nearshore discharge of these pharmaceutical wastes.

One reason for the problem is that the production (and synthesis) of new organic compounds far outstrips the ability to determine and rank their toxicity or their environmental compatibility.<sup>14</sup> Another is that the interaction of chemicals with the environment is barely understood.

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<sup>9</sup> GESAMP. 1990. *The state of the marine environment*. UNEP Regional Seas Reports and Studies No. 115, UNEP.

<sup>10</sup> The US-EPA currently lists a total of 126 toxic “priority” pollutants. The US Clean Water Act recognizes three groups for purposes of regulation: conventional pollutants [total suspended solids, biological oxygen demand (BOD), pH, fecal coliform bacteria, oil and grease], toxic pollutants, and non-conventional pollutants [including nutrients].

<sup>11</sup> Circa 70,000 to 80,000 chemicals are now estimated to be on the global market, and therefore presumably in the environment, with another 1,000 to 2,000 new chemicals entering into the commercial market each year. WCED, 1987. *Our Common Future*. Oxford University Press. 400 pp.

<sup>12</sup> Over 5 million chemical compounds have reportedly been synthesized, and 150 million tons of synthetic chemicals are produced annually. O. Hutzinger. 1990. *The Natural Environment and the Biogeochemical Cycles*. Springer-Verlag, Berlin.

<sup>13</sup> U.S. Congress, *op. cit.*

<sup>14</sup> Of seven categories (including agricultural, cosmetic, food additive and commercial chemicals), a complete health hazard assessment is possible for only 10 percent of pesticides and 18 percent of drugs. No toxicity information is available for over 35 percent of pesticides, 45 percent of food additives, 55 percent of cosmetic ingredients, and 75 percent of commercial chemicals. U.S. Congress, *ibid.* The U.S. National Research Council estimates that no information on toxic effects is available for 79 percent of the more than 48,500 chemicals listed by the Environmental Protection Agency, Ekins, *ibid.*, p. 246.

Concern over these pollution sources used to be thought to be the luxury of the developed world, its legacy of its industrial and manufacturing might. In fact the opposite is the case, as much of the manufacturing of these chemicals and other compounds is exported to the developing world, where pollution restrictions are frequently more lax, and much less rigidly monitored and enforced, by a greater use of fertilizers<sup>15</sup> and other crop modifiers (herbicides, growth regulators, etc.) and by a continued dependence on higher polluting "less clean" technologies.

It is difficult to rank these various pollutants as to local environmental severity or toxicity or impact, in part because their impacts vary geographically. For example, petroleum is less of a problem in the Irish Sea than it is in the Strait of Molucca, and nutrient or fertilizer runoff is probably of little consequence off the west coast of Mexico or the east coast of the Philippines, both lacking a continental shelf on those sides. However, on a global scale, sewage and nutrients are thought to pose the most serious visible threats to inshore marine productivity.<sup>16</sup>

### Global Problems

There is a second level of threat to marine environmental security where cause and effect are not directly obvious, and may well be separated both in space and time. The impact of such hazards are generally unanticipated, and are therefore not predictable.

One such example is the two-fold link between the discovery of oil in the early 1900s and the problem of over-fishing. The first stage was the development of petroleum-based polyethylene rope which quickly replaced hemp as the material to build stronger and larger nets used in coastal and pelagic fishery. The second was the consequent development of the power-winch, enabling hauling in much larger catches than was possible with the older equipment. Both of these developments represented quantum jumps in man's ability to harvest fish. Philosophically stated, these developments enhanced the scale of anthropogenic activity many-fold, outstripping the scale of reproduction and recruitment in targeted fish stocks.<sup>17</sup>

A second example is not yet full reality, but the potential for global oceanic impact already exists. Of the various attempts to increase the global fish catch, one obvious area is that of "sea ranching," i.e., the practice of aggressively rearing anadromous juvenile fish within a land-locked water body to a point where they are released into the ocean to free-feed and grow to marketable size, either at sea, or on their return to their home waters. It is the initial period of rearing these fish stocks "on land" where anthropogenic interference can be practiced, such as biochemical or biomedical treatment, either to stimulate growth or fecundity, or immunize against certain diseases. While the desired effect of more and bigger fish may be laudable, the parallel effect of releasing medicated fish into the global ocean is not at all understood, and it may well carry with it undesirable attributes.

A third threat to world environmental security comes from the satellite- and computer-based information technology. The former technology is already being designed to study oceanic current systems, map bottom sediment characteristics and plot movements of phyto- and zoo-plankton on continental shelves.

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<sup>15</sup> Between 1964 and 1984, per hectare fertilizer use in the developed world increased 217.5 percent (202.1 kg/ha to 439.6 kg/ha). In comparison, for the same twenty year period, fertilizer use in the developing world increased 733.65 percent (from 42.5 kg/ha to 311.8 kg/ha). The portion of the total amount of fertilizers and other agricultural products that reaches the ocean, by runoff or river transport, is not known.

<sup>16</sup> GESAMP, *op. cit.*

<sup>17</sup> The use of spotter planes in combination with high speed surface vessels and modern net technology has reduced open season in Alaskan waters on schooling Coho salmon to 20 minute periods.

When in tandem with the power of the personal computer, the grasp of man on the marine environment can range from deep-sea mining to genome banks in biodiversity programs. While on the one hand, man will be able to identify, evaluate, and inventory his environment, on the other hand there exists the demonstrated tendency or consequence to regard the environment mechanistically, as a quantifiable quasi-amalgam of resources in a matrix.

### **Anticipating Threats to Environmental Security**

Despite the many uncertainties in scientific understanding, and the complexities of the oceans, one can and must draw from earlier experiences to anticipate potential problem areas and potential solutions.

The oceanic Gulf of Paria located between Trinidad and Venezuela presents one such scenario. The Gulf has long been the settling basin for sediments originating from the Orinoco river-delta system, located further south along the Venezuela Atlantic coast. Sediments from this river system are transported to the Gulf by shore-hugging currents that flow northward toward the Caribbean basin. As these currents reach the Gulf and lose velocity, their sediment loads are released, contributing to turbidity of the Gulf waters. This is one of the reasons why the west coast of Trinidad lacks living coral reefs.

Knowing what we do of riverine inputs into coastal waters, one can anticipate that any deforestation for agriculture, or other development projects that involve removal of large forest tracts along the Orinoco river, and indeed within its entire lengthy watershed, will lead to increased erosion of local soils. The immediate consequence will be enhanced sediment movement down river, and eventually a further decrease in the water quality of the Gulf of Paria system—including the water quality and shorelines of western Trinidad. However, the critical element in this scenario is the difference in time scales between anthropogenic activity (deforestation) and that of long-term natural sediment transport before deforestation. The result of this mismatch must inevitably be a very sudden and dramatic rise in siltation downstream. The consequent ecological implications are in part obvious (silt smothering of corals, increased turbidity), and in part not yet understood.

Turkey's Ataturk dam project being constructed on the Euphrates river in south-eastern Anatolia<sup>18</sup> presents a different but potentially far-reaching scenario. The dam project represents the first part of the US\$21 billion Great Anatolia Project, wherein Turkey plans to build over twenty dams and irrigation systems along the upper reaches of the Euphrates. While spelling out irrigation and electric power for Turkey, the project also contains potential threats to environmental security in the region—namely, water shortage problems for downstream users, principally Syria, which has already protested against the project.<sup>19</sup> A further direct threat to Syria is the inevitable loading of fertilizers, pesticides, and salts that will be transported down the Euphrates from Turkey's agricultural and irrigation efforts.

This particular environmental action, on the part of Turkey, thus has certain potential environmental consequences that also carry a real risk to international security. As yet not included in that particular environmental calculus is the risk to other downstream states (primarily Iraq) and to the ecosystem of the Persian/Arabian Gulf from these same inputs. The Gulf ecosystem is already highly stressed with high salinity (due to evaporation and low freshwater input) and low organic content, i.e., nutrient content. As well, its fishery is at best marginal, but important to the coastal communities (of six maritime states). Any perturbation of that system from either agricultural runoff, pesticides, or salts, and any decrease in fresh water input are likely to have consequences for the productivity pattern of that ecosystem.

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<sup>18</sup> *The Economist*, 14 December 1991. p. 15

<sup>19</sup> Th. F. Homer-Dixon. 1990. *Environmental change and violent conflict*. Working paper, Institute for Research on Public Policy, Ottawa. 38 pp.

The problem has been exacerbated by the recent drainage of the vast marshes separating Iraq and Iran by the Iraqi government with the creation of the Saddam canal. Where the marshes might have acted as natural biological filters for organics, fertilizers and pesticides from upstream sources, instead the canal will ensure that these now flow directly and unhampered into the Gulf ecosystem. The canal will also enhance the flow of sediment into the Gulf, potentially adding to turbidity.

### A New Perception for Environmental Security

The linkages between environment and development have already been explored, and some have been identified, in the 1987 report of the World Commission on Environment and Development to the General Assembly of the United Nations.<sup>20</sup> The principal conclusion of that report was that exploitation of global, and ocean, resources must be controlled, must be sustainable where possible, and ultimately must go hand in hand with development—while resolving the inequities between developing and developed countries. Ideally this means that the ocean resource be managed in such a manner that its living resources will continue to renew themselves. Meanwhile, those energies and uses based on non-living resources, such as minerals and fuels, will involve either recycling of used resources or “sustainable switching” to other resources. Also, ideally, man will stop or limit the use of the oceans for disposal of wastes and learn to manage land-based and inland activities in ways that do not alter coastal and offshore processes.

If the Law of the Sea, and the *Agenda for Peace* are to succeed, each in their own way, then man must understand that “environment” differs from boundary-based legal and institutional frameworks in three important and fundamental aspects. First, ecosystems have dynamic boundaries. That is to say, boundaries bounding a population or community of organisms are flexible, they are in constant state of change, they are determined in part by the surroundings and in part by the ecosystem itself, and they do not necessarily conform to the water body in which they exist. Furthermore, a marine species may inhabit a particular water body for 95 percent of the year, but then engage in vast transoceanic (whales) or nearshore to offshore treks (lobster) for the other five percent.

Second, ecosystems are themselves composed of internal linkages, which are dynamic. While ecologists may calculate the calories or pounds protein or joules of energy in each level of a marine foodweb, the fact of the matter is that these calculations are at best averages, that the levels of the foodweb are at best approximations, and that even the concept of a foodweb is an abstraction based on some very crude simplifications.

Third, ecosystems are not static inventories (of fish, etc.), but they function as processes. Indeed, they are processes, with all those conditions that define processes—rates of change, irreversibility, variability, non-uniform events over space, sharp shifts in behavior.<sup>21,22</sup> One characteristic of ecosystems is that they will not necessarily return to an original state, but may stabilize at a second or alternate stable position. While this lends

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<sup>20</sup> WCED, *op. cit.*

<sup>21</sup> “Ecological systems are dirty, changing, growing and declining. That is the source of their resilience and diversity”. C.S. Holling, 1978. *Adaptive environmental assessment and management*. John Wiley and Sons, New York. 377 pp.

<sup>22</sup> The resilience in coastal human communities is explored by C. Lamson. 1986. “Planning for resilient coastal communities: lessons from ecological systems theory,” *Coastal Zone Management Journal* 13(3/4): 265-80.

stability and resilience to the ecosystem in question, it makes predictability of ecosystem change (i.e., environmental assessment) a difficult, if not at the very least an uncertain exercise.<sup>23</sup>

The key to the problem lies in understanding that the ocean system is a quasi-balanced, highly dynamic, and interactive mechanism in which all the various elements are inter-dependent. Thus it is possible to use the ocean to a certain extent for waste management, applying the concept of environmental capacity and the precautionary principle,<sup>24</sup> while simultaneously merging this with controlled management of fishery and other resources.

The challenge to global planning is the successful integration of these various environmental pressures and threats—both in the context of the oceans (where we must resolve, for example, the conflicting dependence on fishery and the need for waste disposal), and in the context of human international economic needs (balancing the need to feed millions against the need for primary and often non-renewable resources). Historically, conflict resolutions of these kinds have been in favor of resource exploitation and extraction. Mangrove forests have given way to destructive aquaculture operations and tin-mining. The integrity of coastal sediments and coral reefs gave way to tourism promotion and uncontrolled urbanization.

I will argue that any step toward global marine environmental security must involve the following three requirements:

1. Any planning and any decisions regarding marine resource exploitation or security be based on the “best available scientific understanding.”<sup>25</sup> Such scientific understanding will have to be far less sectorial, and instead must encompass both hard and soft sciences as well as coastal urban planning as these all intersect on the question of environmental security. In other words, a new multi-dimensional science where human aspirations are included in the environmental calculus.<sup>26</sup>
2. The development of a new paradigm for environmental assessment, one that is based on the dynamic nature of ecosystems, recognizing their variability. At the same time, this new understanding must include human activity and quality of life as intrinsic components.
3. Any resolution of environmental security must be based on a broad-ranging view and integrated studies, taking all relevant sectors into account—whether the problem is local or global. Ideally, and over time, we would embrace a new environmental order where resources

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<sup>23</sup> Paine points out that divulging the inability to predict changes in natural systems is critical to the evaluation exercises in order “to prevent decision-makers from placing undue reliance on impact predictions which appear to be sound, but in fact may have a very feeble basis”. R.T. Paine, 1981. “Truth in ecology,” *Bulletin of Ecological Society of America*. 62: 256-258. See also G.E. Beanlands and P.N. Duinker. 1983. *An ecological framework for environmental impact assessment in Canada*. Institute for Resource and Environmental Studies, Dalhousie University. Published in cooperation with Federal Environmental Assessment Review Office.

<sup>24</sup> Viz. J.M. Bewers. 1995. “The declining influence of science on marine environmental policy,” *Chemistry and Ecology* 10: 9-23.

<sup>25</sup> This expression is deliberately derived from the broadly accepted “best available technology” option applied to environmental pollution abatement.

<sup>26</sup> I. Serageldin makes the point that “while economists, ecologists, and sociologists would all agree that the others’ concerns matter, they do not see these concerns through each other’s eyes”. “Making Development Sustainable,” *Finance & Development*, December 1993, pp. 6-10.

are managed on a global basis, within the context and realities of their particular regional conditions.

### **Environmental Responsibility**

If we are to accept the responsibility for environmental security, i.e., the continuity and evolution of living species and ecosystems, then special consideration must be given to those maritime states lacking the human resources to meet their responsibilities locally. Of particular concern are the small island states, most with small populations that lack the educational and technological infrastructure to determine their own marine resources, let alone evaluate their environmental responsibilities and security, or as a full member of the world's nation states make decisions on an international level about their own resources.

One solution to this problem is the joining together of similarly disadvantaged states, thereby creating a minimum critical mass to initiate the necessary educational and technological upgrading for similar objectives. The Commonwealth Secretariat for the Solomon Islands in the South Pacific and CARICOM in the Caribbean are two encouraging examples of such collaborative effort.

However, if we accept such bi- or multi-lateral collaboration as critical to environmental security, is it then not reasonable to take the next step, i.e., for one maritime state to share a resource with a second state that needs, but lacks this particular resource, in order to ensure its environmental security?



**PART V**  
**THE ETHICAL DIMENSION**

# THE GREATER CARIBBEAN: NATURE AND CULTURE AS DYNAMIC CONCEPTS

*Quince Duncan*

## **Introduction**

Let me begin by defining what I mean by “culture” in this chapter, and then go on to justify why culture should be included in the present context of the sea and peace. We will then discuss the culture of the Greater Caribbean, in order to point out a couple of cultural values I think relevant to this forum. In fact, what I would like to stress in this chapter is that the Greater Caribbean is more than a sea. Finally, I will relate sea, peace and the Greater Caribbean under the focus of ethics. To bring in the ethical dimension means to challenge the reader to transcend ready-made formulas. There are no recipes for dealing with human culture.

## **Definition of the Term**

### *Culture Area*

Considered from the cultural point of view, the Greater Caribbean is an area that extends from New Orleans in the North to the Guayanas in the South of the Continent, incorporating on the way Veracruz, the Atlantic Coast of Central America and of the northern part of South America, the Islands of the Caribbean and extending to embrace the whole of Belize and most of the Isthmus of Panama.

One can describe the Greater Caribbean as a zone with a vast cultural diversity, but at the same time, the traditional, sixteenth- and seventeenth-century links with the colonial powers on the one hand, and the decisive presence of African culture on the other, have given to the Greater Caribbean certain characteristics that distinguish it as a cultural entity with a unique identity.

It is a peculiar cultural formation, lacking, sometimes, in self-awareness. Thus, for example, I was invited in the United States to enjoy a typical and exclusive New Orleans dish—only to discover that it was exactly the same soup my Jamaican grandmother used to cook for us in Puerto Limon, Costa Rica.

### *The Importance of Studying Culture*

So what is the importance of studying the culture of the Greater Caribbean in the present context? I believe that the very title of the conference explains that importance. *Pacem in Maribus*. Peace is a human concept. It is a product of culture. After all, nature was not at war. Nature acts on the principle of survival and proceeds in accordance to protect itself as a system. Survival is an order that, as we will discuss later on, is blindly observed by natural laws. *Survive*. If there is a distortion in the process of construction, deconstruction and natural reconstruction, it has been introduced by human beings.

This is because human beings do not follow in blind obedience. In nature, it is a question of survival of life as such, rather than the survival of a specific group. But humans have adopted a reductionist position: suddenly there is a company, or government, or organization, or even individuals, that put their own survival above that of nature itself. And that is the origin of the war. That is why we lack peace on earth and sea.

Nevertheless, there is a curious fact. Humanity continues to be concerned about its own “destruction” or demotion to any inferior state, different from the human condition. Humanity continues to be concerned about any possible loss of its condition as a being conscious of being conscious. And while nature solves its own equation, the human being faces two sides of a coin: on the one hand he/she is aware of having created his or her own problem, and on the other hand, each individual knows that to find or not to find a way out determines nothing less than his survival as a species.

Sometimes scientists and politicians join hands. Occasionally for the better. Now and again for the worst. Scientists spend much of their time locked in their laboratories, producing knowledge or going to the field to check out their hypotheses. The politician walks the streets promising and sometimes promoting development. The scientist may say that the problem in fact is not his, that social problems belong to social sciences and to politics. But the social sciences have enormous difficulties in advancing, because as soon as they have set up a theory that works, the human beings, object of the study, decide to demolish the existent relationships and build another. And they all fail because ideology blinds them. I refer to the ideology of those who have an ideology. And I also refer to the ideology of those who say they do not have an ideology.

What is very clear is the fact that no science can advance, without considering culture. Blood transfusion technology is useless in a community that makes having the blood of another individual a taboo.

Culture matters because it is as a result of culture that war is declared. And it is only by means of a change in culture that we will achieve peace.

Sometimes the specialists, the scientists, and especially the politicians, commit very serious hostile acts without realizing it. They exclude cultural values from their decisions and recommendation processes without their being aware of it. Ancestral convictions, cultural elements and systems, have an enormous specific weight on the mind of the scientists who are reputed as more objective. Civil society, moreover, is even more inclined to handling matters intuitively rather than in compliance with the rigour of scientific discipline.

In order to illustrate the importance of cultural processes in all our decisions and recommendations, let me mention two interesting examples that I have taken from my own experience, when I was part of a team put together by the World Council of Churches some years ago, to express solidarity with the Aborigines of Australia.

Some local authorities, in charge of the reservations, revealed a rather colonial attitude. In some interviews they gave us their assessment on the Aboriginal population. In their view, the Australian natives were destined to disappear because they were unable to be integrated into Western civilization. Among the examples they gave us, I have chosen two for this discussion, because, as we traveled through that vast and beautiful continent, we had the opportunity to hear the other version.

### *The Case of the Nurses*

One of the programmes was to assist the Aborigines in organizing a group of nurses for community health care. Once they were organized professionally, the nurses began to serve their people efficiently, but with a bias: they would not attend to all sectors of the population. In vain the officials tried to change that situation. But there seemed to be no way to convince the nurses to change their minds.

Of course, to the eyes of the racist authorities of the provincial government this behaviour was simply absurd and a demonstration of the inability of the Aborigines to assimilate progress. But if one took the viewpoint of the local culture, there was a simple and logical explanation.

During one of our sessions with the Aborigines—"groundings," to use the typical Aborigine expression for thinking in community—we discovered that the government had made a mistake. The selection system, rigorous beyond doubt, was based on scholarly skills. This system had determined the selection and training of women all of the same generation. In that particular culture this was a very serious mistake, since it is taboo for a person to see the nakedness of his/her mother, that is to say, the nakedness of the women of the same generation as the mother. So having chosen all of the nurses from the same generation, none could assist any of the women of that older generation, for this would have been a dangerous violation of the cultural tradition.

All of this could have been avoided if, prior to selection of the trainees, some of the scientists or politicians had sat down with the community in a "grounding." But self-centredness excluded any attempt to listen to the point of view of the local community which simply was considered "primitive."

### ***The Case of the “European-type” Houses***

The second case that we succeeded in clarifying in our “groundings” with the Aborigines is that of the houses. Indeed, it was a matter of much surprise that, after the Government had invested thousands of Australian dollars in the construction of houses for the Aborigines, the community used them as warehouses and continued sleeping on the outside, close to the earth.

But once one saw the houses and heard the comments of the community, the situation was quite easy to understand. Those houses were great for Germans, for Scots, and for Irishmen. For the native people, they were not in the correct position. The Aborigines of that ethnic group sleep in a certain position, in accordance with the magnetic poles of the Earth. The houses were not placed properly according to their culture, and they therefore preferred to use them as warehouses. Also, to sleep in houses was to estrange themselves from Mother Earth and She, in the Australian cosmology, nurtures the human being during his hours of rest.

Here again we see how the lack of proper “grounding” prevented a proper “setting in common,” and lead to a “setting in failure.”

In a spirit of hostility, the Australian scientists and politicians justified their own failure by accusing the victim of being the cause of his own plight, and thus they got rid of any feeling of responsibility.

Definitively, culture is the base of everything human. War and peace. The death of the species or their survival. For that reason it is important to meditate on culture in the context of *Pacem in Maribus*.

### **Description of the Greater Caribbean**

To the untrained observer the Greater Caribbean might appear as a very loosely defined geographical unit, but certainly different from the zones of the interior of our American Continent, and also very different from the Pacific coastal regions. The Greater Caribbean is well known for the fury of its winds—the hurricanes, cyclones, tropical depressions. In geological terms, the Greater Caribbean is associated with the “plate” phenomenon, with its faults, quakes and volcanoes dear to the media.

In no other part of the world is there such a wealth of facts mixed with legends. One need only think of the tales of the Bermuda Triangle that capture popular imagination with such vigour. On the other hand, some of the most interesting studies of the sea have been undertaken in the Greater Caribbean, as can be gleaned from specialized documentaries and magazines.

Costa Rica, our host country certainly partakes of the culture of the Greater Caribbean by proclaiming peace in the oceans. There are distinct ways of being Caribbean.

One of the characteristics of the culture of the Greater Caribbean is racial and ethnic diversity. The cultural formation of the Greater Caribbean is so complex that any effort to characterize the area will leave space for a conscious observer to point to exceptions. At the micro level, some cases may not fit in the general scheme. But in general, the characterization that follows illustrates the ethnic wealth of the Area.

### ***Reconstructed Amerindian Cultures***

During the process of conquest, almost all the native cultures of the Americas lost their cultural infrastructure. In fact, in the Insular Caribbean, indigenous people were wiped out completely, leaving very little of their culture. They fell victims of the illnesses introduced by the invaders, excessive work, the decline of the level of nutrition, resulting from the breakdown of their productive system and the appropriation on the part of the conqueror of most of the produce.

Nevertheless, on the coasts of continental mid-America, the Amerindian populations were able to maintain some elements of their original cultures and to reconstruct them, not like museum trophies but as living manifestations. There is an interesting example of this in the Panama-Costa Rica frontier area, and that

is the case of the Cabecares. This cultural group succeeded in preserving its language and customs, and has maintained its identity as a people.

### ***Reconstructed African Cultures***

In the period of colonization a large number of African slaves were able to liberate themselves, escaping from the farms, and settling in the mountains or jungle areas. They formed their *Palenques* and *kilombos* in those territories, and they established independent states some of which were able to survive for many years.

Some of those socio-political groups signed agreements with the colonial states, and later on with the national states, on terms that allowed them to avoid returning to slavery, and/or to maintain autonomy and relative independence. Among the best known cases is that of the Maroons in Jamaica. They were able to maintain their free status until the independence of the nation. But there are other examples of reconstructed African cultures in Surinam, Venezuela and Colombia, and very interesting comparative studies have been made that demonstrate how successful these groups have been in conserving and developing their inheritance; and in spite of the distances in time and space, there are cultural elements and systems which are astonishingly similar to their contemporary African equivalent.

Haiti is another example of a reconstructed African culture. The extraordinary accomplishments of this nation, that liberated itself from slavery and achieved independence as the first free Latin American nation have not been sufficiently analyzed. In fact, against all odds, Haiti has survived as a people, conserving and developing many elements and systems characteristic of the cultures of the African Continent.

### ***Afroamerindian Mestizos***

One of the most interesting phenomena of the culture area of the Greater Caribbean is the presence of Afroamerindian Mestizos. New cultural formations have appeared as a result of miscegenation and the blending of the African with the original population. The cultural mixture in these cases is total.

Two examples of this in Central America are the Misquitos and the Garifunas. In the first case, here are people that were formed by the mixing of local Amerindian tribes and African runaway and shipwrecked slaves on the Nicaraguan coast. In this case, one must say that the Africans were assimilated by the Misquito people adopting their language and customs, and identifying themselves as Misquitos.

The case of the Garifunas is different. The Garifunas are the rebellious heirs of the Carib Indians. They trace their origin to Saint Vincent. They were run-away slaves who mixed with the Carib tribe. Due to their constant fight for freedom and unwillingness to recognize the sovereignty of the colonial powers, the British Government exiled a part of them to the Honduran coast, or, more specifically, to the island of Roatan. There they quickly adapted to the conditions of local life, working out agreements with the Spanish governor to colonize Honduran territory and later on moving into Belize, Guatemala and Nicaragua. The Garifunas succeeded in conserving and developing their language, culture and identity as a group.

### ***Afro-European Mestizos***

A great number of Caribbean people are mestizos resulting from the mixing of Europeans and Africans. In fact, on the great majority of the Islands, the Afro-European mestizos form the majority. Caribbean people are racially and culturally mestizo: African mixed with Spanish, English, French, Dutch, and Portuguese.

These combinations tend to produce new cultural hybrid forms, in which some of the imported elements remain clearly recognizable, for example European languages and some popular African belief systems or proverbs that have survived; but the culture of Afro-European Mestizos contains abundant original

elements and systems. This phenomenon is most apparent in countries like Cuba, Dominican Republic, Puerto Rico, Panama, Martinique, Curacao, and Jamaica.

### ***Euroamerindian Mestizos***

A good part of the continental Caribbean populations is characterized by a mixture of the immigrant Europeans and local natives. In general, the Euroamerindian population has adopted the dominant European culture, conserving elements of the indigenous culture without recognizing their indigenous origin. They identify themselves as "white" and a good number of them systematically renege on their own values along with a monumental exaltation of the European culture of which they consider themselves heirs (Europhilia). There are examples of this attitude in Costa Rica and Colombia.

### ***Reconstructed European Cultures***

The processes of domination in the Caribbean generated some ethno-racial elites, for example, in some Dutch and French colonies. These have been able to conserve and reconstruct the culture of their country of origin in America. Similarly, events related to the wars of independence and the conflicts between the colonial powers caused migrations of dominant white sectors of the Caribbean colonies to new sites. Such is the case of the French-speaking "Creoles" that settled in New Orleans, reconstructing cultural forms characteristic of the white elite of the Caribbean in that new context.

### ***Multiethnic Societies***

In many contexts in the Greater Caribbean there is a diversity of cultural groups, including people of Oriental origin. There are, for instance, cultural groups from India in Trinidad and Tobago, or from China in Limon, Costa Rica. In Guyana and Belize this diversity includes the coexistence of groups of European, African, Amerindian, and Oriental origin, and complex combinations of them all.

### ***Panethnic Cultures***

Finally we use the term "panethnic" to describe those cultural formations in which people of different ethnic backgrounds have mixed to such a degree, that they come to lose all notion of their roots. The cultural forms are no longer distinguishable as clearly "European," "indigenous," "African," or "Eastern" but rather are combined in a hybrid totality, both racially and culturally.

One of the best examples of these new formations is the culture of Veracruz. The culture of Veracruz stems from three traditional "roots" but have produced a culture that is truly Mexican. At a very close look one can trace those roots, but the dominant note is the symbiosis, the integration of the European and African elements on the base of the Native American culture, forming a solid *veracruzana* way of being tri-ethnic in its origin but one in its current manifestation.

### ***Caribbean: Unique and One***

This description of the diversity of the Caribbean should not lead anyone to think that, in order to achieve peace in the seas, it is necessary to consider each one of the cultures. This would be a gigantic task, to say the least. The good news is that beyond this rich diversity Caribbeans share a culture that is one and unique.

To begin with, the presence of the African in the region is one unifying factor. Indeed, from the racial and ethnic point of view, it is possible to perceive the pervasive influence of people of African descent

everywhere in the Caribbean. In fact, the many cultural and racial *mestizos*, in the great majority of cases, originate from various combinations with the descendants of the Africans.

So in spite of the diversity, "Africanity" introduces cultural elements and systems common to the whole region. The oral tradition, held in such high esteem by the African cultures, has helped to conserve, reconstruct, transmit from one generation to another, and disperse among people of other origins, many of those cultural forms.

A good example is music. The Greater Caribbean *is* music. It is jazz, it is reggae, it is calypso, it is socca, it is guaracha, it is salsa, it is mambo, it is merengue, it is cumbia. In general any person originating from the Greater Caribbean, in the cultural sense of the term, recognizes and immediately identifies several or all of these forms as Caribbean music and tends to manifest preference for them as compared to other musical forms.

We could go on *ad infinitum*.

The culinary arts, the visual arts, the Creolos and Patois, the myths, the legends, the architecture, the carnivals, the musical instruments all manifest the same unifying characteristics.

But there is one other common and fundamental feature that marks the Caribbean culture, no matter how paradoxical it may sound: Caribbeans have learned how to live harmony with nature. It may sound paradoxical because if there is a zone that has been devastated it is that of the Caribbean. Indeed, the colonial powers and transnational corporations carried out in the past and persist in carrying out a totally irrational exploitation of the natural resources of the area.

Through the work of its people, the Greater Caribbean systematically contributed to the creation of wealth for the metropolises. Slavery and servitude provided raw materials, produce and products for the European market, generating the leisure the European societies needed to dedicate part of their population to scientific investigation. The Caribbean suffered the effects of deforestation, single cropping, and over-exploitation. Whether by the British on the Nicaraguan coast, or the Spanish in the Dominican Republic, the result is the same.

However, when the continental Caribbean Area is compared to the central and Pacific zones, it is still noticeable that the Caribbeans in broadest terms tend to have a more harmonious relationship with nature. It is intrinsic in their culture, and this might encourage the hope that a campaign for peace in the seas in the Greater Caribbean, spiced with nice Caribbean music, could produce positive effects.

Another encouraging fact that should be pointed out is that the levels of tolerance, traditionally, have been higher in the Greater Caribbean than in other areas of our continent. The diversity factor itself has forced coexistence on the numerous groups of natives, reconstructed cultures, new cultural formations and *mestizos*, creating a microcosm, and an outstanding example of tolerance.

This is not to deny the confrontations that we have gone through, in Nicaragua, Guyana, and Trinidad and Tobago. It is simply a question of measuring the levels of conflict and setting them into a historical perspective, in order to realize that, on the whole, the culture of the Caribbean is more inclined to religious and ethnic tolerance than to violent confrontation.

### **Ethics for Survival**

This brings us to the main issue. This Conference is about building peace in the ocean, peace in the Greater Caribbean. Moreover, this should be an occasion to work for peace in general.

The North American thinker and educator L. Ronald Hubbard, the founder of Dianetics and Scientology, sustained that the whole universe responds to a single law: *Survival*. Among humans, there are eight ways in which this universal law is applied. There are eight basic impulses that Mr. Hubbard called *dynamics*. The dynamics of the existence.

The first dynamic, the first impulse, is to survive as an individual being. The human being tries to live the longest possible time in the best possible conditions that he can achieve. These conditions are not

necessarily the accumulation of material wealth, but rather the achievement of personal goals that may or may not include material wealth.

The second dynamic refers to the relationships of sex and paternity/maternity. As human beings we strive to survive and ensure continuity through our descendants. There is an internal impulse to guarantee that there will always be children.

But the human being endeavours to survive also as a group and ties his/her own personal realization to some type of group, be it an organization, company, movement, church, union, or sport club. In all cultural formations high regard is given to the continuity of the group and the validity of the individual as a member of one or another group. This is the third dynamic.

The existence of groups targeting such issues as human rights, nuclear threat, peace and eradication of illnesses and hunger in the world, testifies to the fourth dynamic: the impulse toward the survival of the human species. Indeed, we all know that our destination on this planet is bound to that of the whole human species.

This Conference, I believe, is a clear manifestation of the fifth dynamic: the survival of all other living beings: plants and animals. The survival of all life forms.

Equally important to this Conference is the sixth dynamic: the survival of the physical world represented by the acronym: MEST, that is, Matter, Energy, Space and Time. The human being experiences an impulse to ensure that matter, energy, space and time should last, because these are in fact his anchor points in this universe.

And finally, here are the last two dynamics: the seventh is that of our spiritual dignity as human beings, and the eighth is that of our bonds with Totality, *the Universal*, whatever may be each person's conception of that Entirety.

### ***Towards an Integrated Ethical Solution***

Mr. Hubbard's survival theory may be very useful in our attempt to build a set of criteria as we face the issue of peace in the seas, in the context of the Greater Caribbean.

First, when confronting the challenge of peace in the seas in the deliberations and in the decision making processes, it is essential to consider the human being in his/her individual dimension. Each inhabitant of the Greater Caribbean counts. Each Caribbean as an individual, beyond the boundaries of his/her particular group, is entitled to be part of the solution. Man or woman, girl or boy, a solution of peace for the seas should include the well-being of each person.

Second, a true peace for the Greater Caribbean will have to consider the natural drive common to all people to perpetuate themselves through their descendants. Peace in the oceans means better conditions of health and food. A solution that leaves the children starving to death is not a solution. Only by means of saving the children can we survive.

Peace in the oceans must consider that the Caribbean people and cultures have a natural right to survive as a cultural group that has come a long way over the centuries, being created and creating itself from diversity, building common features that distinguish it. In our efforts to build peace we could learn a lot from the tolerance of the people of the Greater Caribbean. In real peace in the relationship of the humans with the sea the world over, one should never forget the fact that peace building in the Caribbean is peace building for humanity. It is a struggle that benefits all of humanity. It is therefore an effort in which we should all take part.

Equally important is it to emphasize, that the conservation of the ecological systems of the Greater Caribbean should be perceived in the context of the conservation of the ecosystems of the world. Peace for the Greater Caribbean includes the conservation of MEST, if we are truly heading for a sustainable development and also for aesthetic delight.

Peace is fundamentally an ethical principle. Peace in the oceans should take into account the dignity and the spiritual integrity of the human being including of course the dignity and spirituality of the Caribbean



people. Peace, finally, should incorporate the world view of the Caribbean culture, respecting its deep universal convictions.

***Pacem in Maribus***

*Pacem in Maribus* is an ethically correct proposal, because it is a matter of survival, and we are going to achieve our goals of survival if we consider the eight dynamics as outlined by Mr. Ronald Hubbard. Experience has proven that it is not true that in nature the strongest always survive. The most capable are not always the strongest.

Looking at our surroundings we find abundant evidence that survival is the result of the effort of a group. So the survival of the Greater Caribbean is directly related to the peace in the seas. And it means *our* survival. His. Mine. Yours. The survival of our children. The survival of our neighbours. The survival of the other species. The survival of the physical world as we know it. The survival of the world of the countless future generations whose option of being born depends on each and all of our decisions.

Yesterday is memories. Tomorrow is the reign of dreams. Today is the reality we share. But we build tomorrow from today. *Pacem in Maribus* should be the prelude to *Pacem in Terris*. And it will be so if your deliberations and decisions are led by ethical guidelines like those I have shared with you.

Faced as we all are with the task of the reconstruction of the Greater Caribbean within the broader context of building peace in the seas, the all embracing ethical principle is to: seek that which produces the greatest good for the largest number within the eight dynamics.

# PEACE, ENVIRONMENT, AND VALUES: A GANDHIAN PERSPECTIVE

*Krishan Saigal*

## **Introduction**

Today environmental issues are high on the international agenda and are expected to occupy the attention of statesmen, scientists, ecologists and diplomats in the coming decades. The main environmental policy issues expected to grow in scale and importance, both nationally and internationally, in the next 20-40 years are likely to be environmental problems that significantly and sometimes irreversibly affect vital functions of human societal systems including their spatial integrity, identity and governance capability. There will be a need to deal with environmental threats (i.e., threats to quantity, quality and diversity of environmental wealth) and the mitigation of environmental vulnerability through the conservation of the endangered environment; a change-over to an efficient economic mechanism that addresses human needs in the context of environmental-risk management and international parity; management of environment-related tensions, conflicts and violence; development of environmental-security related institutions, economics, legislation, rights and values.

This is a formidable list of actions requiring attention of policy-makers. But there is also the socio-economic aspect that needs to be taken note of. Any outline of the main policy aims for the 21st century will inevitably be challenged by the extent to which society can be transformed and collective behaviour modified. Also while it might be more or less possible to discern individual motives for actions, collective societal behaviour cannot be reduced to an aggregation of the motives of individuals.

Additionally, the social order is pervaded with nonrational motives, particularly by basic attitudes that guide individual actions. Basic attitudes are patterns of values with which people have emotionally identified themselves, as revealed by the images and metaphors that a culture or society identifies itself with. And basic attitudes imply certain world views which get expressed in the perceived relationship of humans with nature, the concept of a good life etc. A basic attitude, when collectively adopted, prefigures a social paradigm. Based on underlying motives, basic attitudes often remain concealed, and shift very slowly whether at the individual or the collective level.

The whole complex of preconscious and conscious societal forces, or values, is a very intricate phenomenon and incapable of being expressed by any simple equation of social dynamics. But society, including its intricate structure and value systems, has to move in a particular direction if the issues posed by the environment are to be resolved. And this requires the explication of attitudes towards nature and the environment.

This is no easy task. There is, on the one hand, the dominant value system, largely Western in its orientation, but having its resonance in the non-Western world also. In the West a colourful mixture of groups and movements—environmentalists, ecofeminists, New Age followers and others—are acting as pioneers in an attempt to transform the dominant paradigm into an ecologically led one. These movements have their echo in the developing parts of the world where groups and individuals are delving into ancient traditions and practices in order to harmonize developments—social, economic, technological—with the requirements of environmental integrity.

## **Extant Attitudes**

In the extant notions ranging from anthropocentrism to ecocentrism the following attitudes may be discerned: rulership, stewardship, partnership, and participation.

The “ruler” thinks in terms of dominion; man has free disposal of everything nature provides. To him, nature’s only function is to safeguard human survival, and he reduces it to a supply of raw materials or just a

conglomerate of objects and facts. The attitude of dominion is dynamic, as the ruler, in his infinite appropriation of nature, never ceases to extend his power.

The “steward,” however, recognizes limits to what man can demand from nature. His attitude is anthropocentric, too, but he holds himself accountable to the Creator or future generations. Nature has given to the steward the right to enjoy its usufruct, not to exhaust it. This puts a curb on the urge for expansion typical of the “ruler” and makes the stewardship attitude a conservative one.

The “partner,” representing the third basic attitude, combines conservationism with dynamism; what he tries to realize is an interaction between man and nature which is beneficial to both. Technical intervention is allowed, provided that it does not interfere with the self-regenerating capacity of nature. The partner searches for a dynamic balance between societal needs and nature.

Finally, the “participant” wants to prevent the partnership from turning out to the unilateral advantage of man. The participant tries to ensure that human activities are in accord with the possibilities created by nature itself. Interference with nature is understood as a process of adaptation. The attitude of participation is however prone to degenerate into an anti-developmental or at least anti-technical attitude, expressed by the slogan “back to nature.”

## **Technology**

In the highly technological culture of today, an important role for technology is considered a *sine qua non* for tackling the environmental crisis. Technology, however, has strong links with society. Recent developments in socio-cultural sciences and in philosophy indicate that modern technology can be regarded as a social construct. It expresses the aspirations, desires and needs of influential social groups. This vision stresses the importance of the mental and cultural conditions that prepare the way for technological developments.

Given these new insights, it is not surprising that historians now agree about the inadequacy of the traditional explanation regarding the emergence of the Industrial Revolution and modern industrial society. Today, it seems to be generally accepted that the newly acquired technical knowledge and the inventions of particularly the late 18th and the 19th centuries followed logically from the changes that individuals and society had been undergoing for a long time. To put it simply, typically modern phenomena such as the new sense of time, the disciplining of Western society and the mechanization of its world view were the prelude to all the technical developments rather than the result of them. They were the fertile soil in which technology could flourish.

Since in the present view of the matter modern technology largely grew in the context of value systems of Western society, the question of its utility for non-Western society arises. One of the earliest non-Western thinkers to think of the problems that modern technology posed for a non-Western society, in this case the Indian one, was Gandhi. His concept of the utility of technology for Indian society arose out of his concern for having a society free of violence and based on the twin concepts of Truth and Nonviolence.

## **Gandhi and His Principles**

Mohandas Karamchand Gandhi was born on 2 October 1869, and this apostle of peace and nonviolence died a violent death, falling to an assassin’s bullet on 30 January 1948, while attending a prayer meeting. Gandhi studied to be a barrister in Britain and thereafter was invited to practice law in South Africa. It was there that he conducted his first experiments in nonviolence in opposition to the practice of apartheid. He refined his ideas on nonviolence later on in India where he led a peaceful movement for independence from British rule.

Today the concepts of nonviolent resistance, civil disobedience, and silent sit-ins are finding general acceptance. The impact of nonviolence is being felt in many parts of the world and arises from diverse sources.

It is even not uncommon to hear people being arrested for nonviolently invading rocket base sites and plants where nuclear warheads are produced and assembled!

By the 1960s, nonviolence, nonviolent resistance, Satyagraha, and pacifism were frequently used words in literature and were even to be found in newspapers. In recent years a number of universities have begun to offer courses in nonviolence and peace. With the threat of nuclear war looming large over the world, the ideas and ideals of nonviolence and methods of nonviolent social actions have risen to sufficient prominence to be reckoned with in world thinking and events. Gandhi is, to a large extent, responsible for this.

Gandhi immersed himself in all aspects of general welfare and the happiness of human beings. Life was conceived by Gandhi as a field of experimentation.

He practiced what he professed, and advocated only what he had tested in his own life...every aspect of human betterment, every problem touching human welfare, whether in the field of politics, or sociology, economics or religion, in every walk of life, commanded his attention and active interest. He owed allegiance to a philosophy and outlook that expresses itself in a multi-sided approach to the many sided problems of life; this makes him, strictly speaking, not a mere individual but a universal personality (Ranganathananda 1971: 841).

Gandhi addressed topics of life ranging from personal, moral, and spiritual problems to health care of the infant and of village cattle. He advocated village industry not only because of his dislike for modern technology, but because of his respect for nature. He considered modern technology as a form of violence, as, among other things, it brought about unemployment and the decline of crafts—in his view a deterioration of the human condition. He understood the intricate web of relationships between all living things and the physical environment that they share.

### **Gandhi and Science and Technology**

Gandhi was Western-trained and learned about Western philosophy and Western science while studying law in Britain. Perhaps most important is the fact that Gandhi became acquainted with Western traditions of cultural criticism, associated with such names as Ruskin, Tolstoy, and Thoreau. The “experiments with truth” that made up Gandhi’s life were, in large measure, a conscious effort to combine these critical Western ideas with a very personal interpretation of Hindu belief. Gandhi embodied an alternative science and technology in his own person and tried to develop a more humane and contextual model.

Gandhi was not alone in his attempts to develop alternative approaches to science and technology in colonial India, although it was his vision that has perhaps been most influential. Nandy has recently contrasted Gandhi’s “critical traditionalism” to the more absolute glorification of tradition represented by the art historian and Buddhist scholar Ananda Coomaraswamy (Nandy 1987). Where Gandhi made use of the Indian traditions in an open-ended, reflective way, Coomaraswamy’s

tradition remains homogeneous and undifferentiated from the point of view of man-made suffering ... Today, with the renewed interest in cultural visions, one has to be aware that commitment to traditions, too, can objectify by drawing a line between a culture and those who live by that culture, by setting up some as the true interpreters of a culture and the others as falsifiers, and by trying to defend the core of culture from its periphery (Nandy 1987: 121-2).

Gandhi’s critique of Western science was fundamental and comprehensive. He rejected Western science in terms of all its dimensions—philosophical, sociological, technological—recombining the romantic or poetic critique of secularization with critiques of the institutionalized elitism and the “technicist” orientation

of Western science. It was the lack of morality, the lack of idealism of Western civilization that Gandhi objected to; and Western science was, for him, a central part of that immoral value system.

Unlike the Marxist or positivist leaders of most other independence movements in non-Western societies, Gandhi sought to develop an alternative way of life in which traditional techniques and non-Western beliefs had a central place. His critique of Western civilization was thus not merely a critique of its immorality, but also of its epistemology.

Traditional technology, too, was for him an ethically and cognitively better system of applied knowledge than modern technology. He rejected machine civilization, not because he was a saint making occasional forays into the secular world, but because he was a political activist and thinker with strong moral concerns (Nandy 1987: 160).

### **Gandhian Economics**

To Gandhi man was the supreme architect of his own destiny. The ways to truth were many and each person had to proceed towards Truth in his own way and as dictated by his conscience. For morality is what distinguished human beings from animals. The path chosen had, thus, to be a moral one.

In relations with others, human beings had always to keep in mind the categorical imperative of nonviolence, that is, while earning their livelihood human beings had to ensure that this was not at the expense of others—whether human beings or nature.

Gandhi made the acute observation that all previous (urban) civilizations (Babylon, Egypt, Assyria, Indus Valley etc.) were deserts today. He said that this was due to the delinking of man from nature (through urbanization) and the consequent taking away from nature more than could be replaced. He, therefore, suggested that the concept should not be materialistic development based on consuming more and more but human development in which peace and happiness should play the major role. His thought could be placed in a simple formula as below:

$$\text{Happiness (H)} = \text{Consumption (C)} \text{ divided by } \text{Desire (D)}.$$

Obviously the highest value of H is unity, i.e., when consumption equals desire.

Gandhi pointed out that the materialistic concept of increasing needs so that you could consume more would only lead to happiness if desire remained constant. But experience showed that desire always outstripped consumption so that the maximization of needs only led to a situation in which human beings constantly chased the chimera of happiness. The answer according to Gandhi was to decrease wants (consumption) to the most essential needs and to simultaneously decrease desire so that the position where happiness tended to unity was arrived at.

His dictum that “the earth has enough for man’s need but not for his greed” is a concept of sustainable development based essentially on his nonmaterialistic outlook on life and stress on peace (ahimsa) and concept of the upliftment of all (sarvodaya).

### **Gandhi and Ecology**

Gandhi’s teachings and actions clearly reflect an ecological orientation. He was led to ecology through his emphasis on nonviolence. Peace in his view was a universal concept. It was not attainable unless harmony—not only in the social sense as between individuals but also in the larger sense as between humans, animals and plants—was attained. He was sensitive to bringing a balance between individuals and their environment within the prevailing social conditions. His encouragement of the Indian masses to spin cotton

for their personal use was not only aimed at instilling self-reliance and self-dignity in them, but also to preserve the environment using the minimum of capital.

### **Gandhi's Concept of Soul Force**

Gandhi, who was influenced by the cultures of India and England, the religions of Hinduism, Jainism, Buddhism, and Christianity, and the writings of Leo Tolstoy and Henry David Thoreau, put the peculiar stamp of his genius upon the theory of nonviolence. He confronted the problems of imperialism, industrialism, racism, communalism, classism, and the like, in his own way. In the process he developed a unique blend of nonviolent resistance, the philosophy of Soul Force, or the moral equivalent of war.

The method of inquiry and mode of action Gandhi used in his search for Truth is what he called Satyagraha. Satya means Truth and Graha means adherence to Truth. Satyagraha thus means adherence to Truth, or Truth Force. He also called it Soul Force; because for Gandhi, Truth was God.

The basic appreciation of nonviolence or Soul Force was Gandhi's acquaintance with the Sermon on the Mount, which Gandhi said, "went straight to my heart." He records his delight in the verses that begin "If you are asked to carry a load one mile, by all means carry it under duress, since that is the legal practice, but after you have carried the load under compulsion, offer to carry it the second mile of your volition." This positive act is calculated to stun and convert the task master. Another of his favorite verses is, "But I say unto you, that ye resist not evil; but whosoever smite thee on thy right cheek turn him the other also" (Nelson 1967: 9).

The Bhagavad Gita (a Holy Book of the Hindus) deepened for him the impression made by the Sermon on the Mount regarding love and one's duty to fellow human beings. Leo Tolstoy's *The Kingdom of God Within You* added sum and substance to his philosophical and moral principles. He thereafter called himself Tolstoy's humble follower (Nelson 1967: 11). After reading Thoreau's *Civil Disobedience* in a prison in South Africa, Gandhi began to call his movement "civil disobedience" instead of "passive resistance," which he called the weapon of the weak since it does not exclude the use of physical force or violence. Satyagraha, according to Gandhi, has to be conceived as a weapon of the strongest and excludes the use of violence in any shape or form (Gandhi 1972: 3-6). There are three fundamental elements to Satyagraha: Truth, Ahimsa (nonviolence), and self-suffering.

### **Ahimsa and Satyagraha**

Gandhi's life was an experiment with Truth (Satya) and the means to achieve the Truth was through Ahimsa (nonviolence). The full force of Ahimsa, explicitly stated, means "action based on the refusal to do harm" (Bondurant 1965: 23). For Gandhi, Ahimsa (nonviolence, or love, as he called it) is the means, and Satya (Truth) is the end, and the debate on the means-end continuum was meaningless, for they are irrevocably tied to one another.

The means may be likened to a seed, the end to a tree, and there is just the same inviolable connection between the means and the end as there is between the seed and the tree ... We reap exactly what we sow (Gandhi 1972: 10).

The vision of Truth depended upon the realization of nonviolence. Gandhi was of the opinion that life must be lived within the framework of Satya and Ahimsa. Add this to his concern for the social welfare of all people (especially the underprivileged, the wronged, and the oppressed) and we have the ingredients of a great social and political reformer.

## **Truth**

Gandhi, who never claimed to know the Truth in any absolute sense, asserted that Satyagraha “excludes the use of violence because man is not capable of knowing the absolute Truth and, therefore, not competent to punish” (Gandhi 1972: 3). He thus urged others to keep an open mind to those who would differ with them. For him truthfulness is the key to life, for “Truth is perhaps the most important name of God. In fact, it is more correct to say that Truth is God” (Gandhi 1972: 38). Under no circumstance whatsoever is one to lie, cheat, or keep anything secret.

Bear ill-will to none, do not say an evil thing of anyone behind his back, above all, “to thine own self be true,” so that you are false to no one else. Truthful dealings even in the least, little things of life, is the only secret of pure life (Chander 1945: 559-60, as quoted in Bondurant 1965: 22).

To the question of truth, since it may have different meanings to different people and hence may lead to confusion, Gandhi answered that each individual would determine that according to his or her conscience and since Ahimsa, or nonviolence or love, is a necessary part of the corollary, there would be no confusion (Bondurant 1965: 20).

Where there is a truly honest effort, it will be realized that what appear to be different truths are like the countless and apparently different leaves on the same tree (Gandhi 1972: 39).

Since each person has to determine the truth according to his or her own conscience, this led to the linking of social with individual behaviour through the following of a common norm.

Gandhi also equated Truth to knowledge.

And where there is Truth, there also is knowledge which is true. Where there is no Truth, there can be no knowledge (Gandhi 1972: 38).

According to Gandhi, there should be truth in thought, speech and action.

To the man who has realized this truth in its fullness, nothing else remains to be known, but all knowledge is necessarily included in it. What is not included in it is not truth, and so not true knowledge; and there can be no inward peace without true knowledge. If we once learn how to apply this never-failing test of truth, we will at once be able to find out what is worth doing, what is worth seeing, what is worth reading (Gandhi 1972: 39).

## **Ahimsa**

As pointed out earlier, for Gandhi the means to achieve Truth is through Ahimsa, that is, nonviolence or love. Not to hurt any living being is only a part of Ahimsa, that is its least expression. “The principle of Ahimsa is hurt by every evil thought, by undue haste, by lying, by wishing ill to anybody” (Gandhi 1972: 41-2). According to Gandhi’s interpretation of Ahimsa,

It is not merely a negative state of harmlessness but it is a positive state of love, of doing good even to the evildoer. However, neither does it mean tolerating injustice. On the contrary, Ahimsa requires not only resistance but also conversion of the wrongdoer (Gandhi 1972: 161).

If there is a dogma in Gandhian philosophy, says Bondurant, "it centres here, that the only test to truth is action based on refusal to do harm" (Bondurant 1965: 25). This is one principle of Ahimsa that Gandhi adhered to until the end. The supreme and the only means to the discovery of social truths was through Ahimsa. Because we covet things and seek pleasure, we are in a constant state of competition, obsessively seeking self-gratification at the cost of others, plus putting ourselves in a state of violence.

Hence the fulfillment of Ahimsa is difficult, if not impossible, without self-sacrifice and selflessness. Attachment to personal things and loved ones defeats the overall meaning of Ahimsa. For Gandhi, Ahimsa means universal love; and in its dynamic form it means conscious suffering. It does not mean meek surrender to unjust acts or laws, but confronting the oppressor with a firm conviction and a single-minded honest purpose.

Gandhi kept the Bhagavad Gita's dictum in mind:

By reason of delusion man takes wrong to be right. Effort is within man's control, not the fruit thereof. All he has to do, therefore, is to decide his course of conduct or duty on each occasion and preserve it unconcerned about the result. Fulfillment of one's duty in the spirit of detachment and selflessness leads to freedom (Desai 1946: 145).

Influenced, as he was, by different religions, his concern for the welfare of all made him a firm believer in Sarvodaya—man's duty to serve the universe. But a selfish, self-centred person would be seeking only self-gratification. Hence, "the path of service can hardly be trodden by one who is not prepared to renounce self-interest....The duty of renunciation differentiates mankind from the beast" (Gandhi 1972: 48-9). Renunciation here does not mean abandoning the world, for that would be cowardice. It means detachment from worldly possessions and desires, so that one can immerse himself or herself in selfless devotion to the welfare of all.

Self-sacrifice and self-suffering, familiar concepts in Indian culture, thus are important elements of Satyagraha. It is directed toward moral persuasion. Since it is not a weapon of the weak, it is clearly different from cowardice, which has no place in Satyagraha. It is also not a substitute for an inability to use violent means to achieve victory.

The aspect of self-sacrifice, as advocated by Gandhi, may be the least acceptable to the Western mind. "Yet, such sacrifice may well provide the ultimate means of realizing that characteristic so eminent in Western moral philosophy: the dignity of the individual" (Bondurant 1965: 29). For Gandhi, society was not possible without individual freedom and dignity. "No society can possibly be built on a denial of individual freedom" (Chander 1945: 21).

In making a distinction between man and the system, Gandhi highlighted the primacy of the individual. The system, whether it be social, political, economic, or religious, should be geared toward the betterment of the individual. When a system becomes harmful to the well-being of man, it must be mended or ended, altered or abolished (Mazumdar 1952: 41).

Gandhian principles recognize that the individual is primary and the rest of the social institutions are secondary and are there to serve him. Man, the operator of the system, needs all the help available. Thus, we can have a legitimate quarrel with the system that is evil, but we should have no quarrel or hatred for the people in whose name and by whom the system is operated. Gandhi championed the cause of the underprivileged, and the cause of those to whom palpable injustice may have been done, to purify and regenerate society. "While working for the mending or ending of certain outmoded institutional patterns, Gandhi placed his main reliance upon sensitized consciences, upon regenerated human beings for abiding change in society" (Mazumdar 1952: 113). His prayer for another was "... not, God give him the light that Thou has given me, but give him all the light and truth he needs for the highest development" (Nelson 1967: 17).

Thus, for Gandhi all humankind has to be treated equally and justly, with dignity and respect.



## Conclusion

Gandhi's view of ecology was derived from his two categorical imperatives: the search for Truth as an end through Ahimsa or Peace as the means. All matters relating to humanity, namely, human rights and human dignity, economics, science and technology, ecology, etc. he derived from this touchstone. Peace was the starting point, the middle and the end of the pursuit for Truth. To Gandhi it was not man who was the problem but his greed.

Addressing himself to the roots of the problem of sustainability, Kothari (1990) writes:

In the absence of an ethical imperative, environmentalism has been reduced to a technological fix, and as with all technological fixes, solutions are seen to lie once more in the hands of manager technocrats. Economic growth, propelled by intensive technology and fueled by an excessive exploitation of nature, was once viewed as a major factor in environmental degradation; it has suddenly been given the central role in solving the environmental crisis. The market economy is given an even more significant role in organizing nature and society. The environmentalist label and the sustainability slogan have become deceptive jargons that are used as convenient covers for conducting business as usual.

Gandhi would have approved the above. To him sustainability has to be rooted in ethics and "our common future" could not lie in an affluence that is ecologically suicidal, and socially and economically exclusive. It must, on the other hand, lie in the development and happiness of all, in a curtailment of wants, in the giving up of greed, in consideration and love for the whole of God's creation. Ahimsa and Truth, the two touchstones for Gandhi, could come to no other conclusion.

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# RECOMMENDATIONS TOWARDS A NEW WORLD ORDER

*Robert Muller*

For the first time in history, humanity is preparing itself properly for its entry into a new century and millennium, something totally unprecedented. For example, at the end of the last century there was practically no such preparation. Only two efforts were made: the holding of a World Parliament of Religions in Chicago in 1893, and the first World Peace Conference in the Hague in 1899. There existed only two small international organizations, the UPU (Universal Postal Union) and the ITU (International Telegraphic Union) for the first two global reasons that the mail had to be transported across borders and telegraph poles and lines built across them. Today there exists a still imperfect, insufficient but first universal organization, the United Nations, strengthened by 32 specialized agencies and world programmes created on the historic path opened by the UPU and the ITU. Furthermore, the UN and these agencies had the vision and foresight to hold and to plan a whole series of world conferences reviewing the present state of the world and looking into the next century and millennium. Finally we saw also the unprecedented birth of a series of Independent World Commissions of Eminent Persons, usually headed by a chief of state, doing the same inspirational, forward-looking work on some of the most delicate but fundamental issues we are confronted with at this stage of our planet's and human evolution. I provide an updated list of these global efforts which have come to my knowledge.

But there are still gaps to be filled. There is nothing more important at the end of this prodigious century of achievements and utter failures of the human species than to adopt the highest, most audacious, and why not say it, utopian view of our future on this miraculous, beautiful planet, the only one blessed with life in our solar system and perhaps in the entire universe. Our utopias are likely to be watered down, but at least we must start from the most elevated, imaginative, audacious dreams, as did practically all our scientific and technological achievements. We need utopias and lofty ideals and, like the scientists and engineers, we must not consider anything impossible in the political and social field.

## **My Top Priority Recommendations**

1. *Convening by the UN of a world conference on proper world government and administration.*

Despite the end of the Cold War, international and internal conflicts have increased from 38 in 1991 to 75 in 1995 and the number of sovereign states members of the UN has increased from 160 to 187;

Since the duplication of government expenditures, national institutions and bureaucracies between 187 nation-states has reached staggering proportions and military and armaments expenditures have barely diminished since the end of the Cold War;

We must declare the absolute necessity to consider and adopt new ways for proper world government and administration for the sake of our planet and the peace, well-being and justice of all humans.

The Independent World Commission on Global Governance headed by the Prime Minister of Sweden, Mr. Ingvar Carlsson, has most effectively opened the door to the consideration of new ways of properly managing and administering our planet and human society. It should lead to the holding by the United Nations of a world conference on the proper government and administration of the Earth, to permit the adoption of a new system as we enter the 21st century, a system infinitely better than the United Nations.

The path-breaking United Nations Convention on the Law of the Sea, adopted by nations for the proper administration of the seas and oceans, as commons representing two thirds of the planet's surface, could provide an example for the adoption of a Law of the Earth.

2. *Establishment of an Independent World Commission on Democracy.*

It is high time to review the concept of democracy which has been largely replaced by the rule of moneyocracy and powerocracy. Even elected parliamentarians, once working with central governments, do the contrary of what their people expect from them. World public opinion polls should be held. If one were held on nuclear armaments, the overwhelming majority of people would ask for their elimination. And yet, governments do not do it, and even increase them in some cases.

3. *Absolute necessity for a World Security System.*

The United Nations Charter established a Military Staff Committee of the Security Council in which the heads of the armies of the five Permanent Members were supposed to come up with a world security system, whereafter they would turn to the disarmament of the planet.

This sensible way was cut short by the Cold War, and still has not been revived since the end of that war. If the five permanent Members of the Security Council do not comply with this requirement of the UN Charter, the Secretary-General of the UN should come up with his proposals for a world security system allowing effective disarmament thereafter. It is gratifying that the Worldwide Consultative Association of Retired Generals and Admirals has taken up that task and has come up with proposals for a world and regional security system.

My own proposals for a world security system include the creation at the United Nations of a World Peace Room similar to the War Room of NATO, to monitor all potential conflicts and inform immediately the Security Council and the Secretary-General. Another proposal is to create an instantaneous telecommunications system between the Secretary-General and all heads of states, open day and night.

4. *Establishment of a World Commission on the Total Denuclearization of the Planet.*

It took billions of years until the original nuclear radiations of our planet disappeared, giving then birth to the immense variety of life forms which we have today. And now, through nuclear armaments, no longer necessary at all after the end of The Cold War, and through nuclear energy plants, we resume irresponsibly and foolishly the radiation of the planet. This must be urgently stopped by the destruction of all nuclear armaments.<sup>1</sup> All nuclear energy plants on the planet should also be dismantled since, as proved by the UN years ago, the supply of the world needs can be met by still to be exploited hydro-electric power sites and new sources of energy around the planet. Nuclear energy plants are built by nations purely because they do not want to be dependent on foreign supply sources. In an orderly managed and secure planetary society, such fears would no longer be warranted. In any reform of the United Nations the International Atomic Energy Agency should be replaced by a United Nations or World Energy Agency.

More generally, in a proper world government, humanity has to learn to prohibit technologies which endanger the future of the planet and of humanity. Thus, all supersonic air flights should be prohibited.

5. *Establishment of a World Commission on the Demilitarization of the Planet.*

A total of 25 countries, mostly small ones, are already demilitarized on this planet. Dr. Oscar Arias, Costa Rican Nobel Peace Prize winner, is doing a wonderful, pioneering job in obtaining the demilitarization of more countries.

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<sup>1</sup> On the frightening picture of atomic submarines and the dumping of old nuclear plants and submarines to the bottom of the oceans, see David Krieger, President of the Nuclear Age Peace Foundation, in this volume.

Since Ministries of War have already mostly transformed themselves into Ministries of Defence, I personally propose that they further transform themselves into Ministries of Peace, and that all military and police forces on this planet, from the top of the world (UN peacekeeping forces) to municipal polices be reconverted into Peace Protectors and Agents. The Worldwide Consultative Association of Retired Generals and Admirals has come up with many interesting proposals for the use of military forces for peaceful and productive programmes as well as their transformation into a new type of proper soldiering. For their own future sake, all militaries of the world should consider their transformation and adaptation to the new global conditions and requirements of the world in the next century and millennium. If not, they are bound to disappear.

6. *Holding by the UN of a world conference on violence and the nonviolent resolution of conflicts.*

It is high time for the UN to have a look at all forms of violence on this planet, their causes, their prevention, and the ways they could be solved by nonviolent means, from the top of the world (international conflicts) down to violence on the streets and in the family.

On this subject I have outlined 16 proposals to the US Gorbachev Foundation's State of the World Forum held in San Francisco from 27 September to 1 October 1995.<sup>2</sup>

7. *Early decision by the UN General Assembly to prepare and celebrate the year 2000.*

There are only four years left to the turn of the century and the millennium. For the sake of a better future and the acceleration of the solution of our problems, it is of paramount importance for the General Assembly to decide to prepare and celebrate the year 2000. As was the case for the celebration of the UN's 50th anniversary, the General Assembly should establish a special committee for that purpose and ask all governments to create national committees. The remaining years to the bi-millennium could thus be devoted by all humanity, nations and institutions to unparalleled thinking, action, inspiration, elevation and love to solve our remaining problems and to achieve a peaceful, united human family on earth.

### **My Recommendations Concerning the Earth in its Totality**

There were three distinct periods in the world and in UN history since 1945: (1) until around 1970, all concerns and UN efforts were concentrated on humanism: to avoid wars, increase human wellbeing and education, avoid early child mortality, improve health and sanitation, eradicate epidemics, increase longevity, define and defend human rights in general; and for distinct groups (children, women, indigenous people); suppress apartheid, etc. It was probably the most intensive period of humanism in our entire history; (2) around 1970 (the 1968 World Biosphere Conference and the 1972 Stockholm Conference on the Human Environment) the concern become humanism *and* the nature around us, the environment (the UN Charter does not even mention nature, the earth or the environment; the earth was considered to have unlimited resources); (3) from around 1980, with the appearance of climatic dangers, the earth has become No. 1 and humans No. 2 in world preoccupations. Hence the following recommendations.

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<sup>2</sup> For information, contact the Centre for International Peace building, 9 West Street, Chipping Norton, Oxfordshire, OX7 5LH, UK, Fax 44 1608 644 732.

1. *The drafting of an Earth Charter.*

This task has been entrusted by the Rio Conference on Environment and Development to the Earth Council created in Costa Rica. Since the seas and oceans constitute two thirds of the planet's surface, a great part of that Charter should be devoted to them. A separate Ocean Charter should even be considered.

2. *Need for a Universal Declaration of Human Responsibilities.*

On the occasion of the 50th anniversary of the Universal Declaration of Human Rights in 1998, a Universal Declaration of Human Responsibilities should be considered by the United Nations, including responsibilities towards the earth, nature, other living species, as well as a Universal Declaration of Human Responsibilities towards the Seas and Oceans.

3. *Need for a second World Biosphere Conference.*

Thirty years after the first Biosphere conference held by UNESCO in 1968, a second world conference should be held to see how the thin membrane of life around our planet, only a few miles into the atmosphere and a few miles into the depths of the oceans, is faring. Special attention should be given to the conditions of the seas and oceans which occupy a dominant place in the planet's biosphere through the world's water cycle and the production of oxygen.

4. *Climate changes and dangers for the Earth.*

The UN has held so far two world conferences on the climate which has become a top preoccupation in our future evolution. Climatologists are predicting that within a few decades there might be changes in the direction of ocean currents as a result of earth warming, creating further climatic changes and having effects on fisheries. The changes might be irreversible for thousands of years. Consideration should be given to a special UN conference on climatic changes and the oceans.

5. *Our globe's biodiversity.*

The 1,100 page Global Biodiversity Assessment report just issued by the UN Environment Programme (UNEP) shows substantial losses of the biodiversity of our planet. The diversity of the life forms in the seas and oceans which represent two thirds of the surface of the planet should receive top priority since the oceans are the final receptacles of human pollution and wastes and are highly endangered by nuclear radiation.

6. *Need for a second world water conference.*

The whole water cycle of our planet of which the seas and oceans are the major source should receive urgent attention. Water use and pollution by humanity are of grave concern to our future fate and evolution. The United Nations held the first world water conference in 1977. It was estimated at that Conference that water consumption would be quadrupled by the year 2000. A second world water conference should be held in 1997, twenty years after the first one.

7. *Need for a World Air and Atmosphere Conference.*

The whole air and oxygen cycle of our planet should receive urgent attention as part of our future evolution. The World Atmospheric Programme of the UN needs more visibility which could be obtained by

4. *Maritime bioregions.*

Military bioregions such as NATO and SEATO should be terminated now that the cold war is over. They should be replaced by cooperative peace bioregions on the planet: NATO should be succeeded by NACOM (North Atlantic Community) and SEATO by SEACOM (South East Asian Community). Several other maritime bioregional communities should be considered. The Arctic Forum created by Governor Walter Hickel of Alaska also provides an excellent example of peaceful bioregional cooperation and arrangements.

5. *Maritime implications of the twenty regional associations and communities in formation around the planet.*

The maritime aspects of the 20 regional associations and communities already created or in formation on the planet merit attention and study. The European Union is the most advanced of these communities and could serve as a guiding light for all others in matters of peace, new security and defence arrangements, and seas and ocean affairs. It could even be the model or basis for a new political world order infinitely better than the United Nations.

6. *Maritime demilitarization.*

The demilitarization of countries which are maritime countries means also some demilitarization of the seas and oceans of which they are riparians. Panama should be congratulated for having followed the example of Costa Rica and demilitarized itself by Constitution. Haiti is likely to follow the same course. The demilitarization of sea riparian countries merits special attention, in view of its effects on the demilitarization of the seas and oceans.

7. *UN Group of Demilitarized Countries.*

Of the 25 small demilitarized countries of this planet, several are member countries of the United Nations (Costa Rica, Dominica, Gambia, Iceland, Liechtenstein, Marshall Islands, Mauritius, Monaco, Palau, Panama, San Marino, Solomon Islands, and Vanuatu). Some of them have defence arrangements with other countries. They should form a special group of demilitarized countries at the UN, with a special sub-group of those which are maritime countries.

8. *UN Group of Maritime Countries.*

A special group of maritime countries should be established at the UN and in all specialized agencies in order to consult and cooperate on sea and ocean affairs.

9. *Cooperation with the Worldwide Consultative Association of Retired Generals and Admirals.*

In view of the pioneering work of that Association, I recommend that close cooperation be established between the IOI and that group.

10. *Cooperation with the World Tourism Organization.*

In view of the predictable quantum jump in world tourism, I obtained a number of years ago the transformation of the Union of Official Travel Organizations (UOTO) into a specialized agency of the UN. The World Tourism Organization, linked with the UN under a special agreement. In view of the dominant beach

tourism and its effects, cooperation with that agency in Madrid would merit review with a special view to the future.

### **Recommendations on Education and the Role of the University for Peace**

#### 1. Education in the 21st Century

A World Commission on Education in the 21st Century, headed by Mr. Jacques Delors, the former President of the European Community, has been established at UNESCO. It would be good for the IOI to see the place given by that commission to education about the seas and oceans, which cover the greatest part of our planet.

#### 2. The World Maritime University in Malmö, Sweden

Of the few first world universities existing today, the World Maritime University in Malmö created by the International Maritime Organization (IMO) is the most advanced and has the largest number of students. It would merit a special attention by the IOI and the World Commission on the Oceans.

#### 3. World network of peace studies, institutes and peace universities

There is an active trend towards the development of peace and conflict resolution studies in Universities around the world, and towards the creation of peace institutes and peace universities. A survey could be made by the International Association of University Presidents, with special attention by the IOI to sea and ocean peace education and conflict resolution.

#### 4. Continental and Sea Peace Universities

I would see with favour the creation of peace universities for each continent, as dreamt by former Secretary-General U Than. The World Maritime University in Malmö could become the World University for Peace on the Seas and Oceans. Sea Universities could also be created for each sea and ocean.

#### 5. The University for Peace

The University for Peace in Costa Rica initiated the plan for peace zones which it submitted to the Presidents of Central American countries. That plan includes the progressive demilitarization of the Central American Republics and an intensive programme of training and education of peace and human rights in the region. The Ministers of Foreign Affairs of the Republics turn to the University for Peace for further peace proposals and utopias.

I do not know how many naval military academies there are on this planet, teaching a science, strategy and methodology of seafaring or defence. There must be quite a few of them, but there is not a single naval peace academy, training peace-makers for the seas and oceans. Consideration could be given to a naval peace training programme or creation of a naval peace academy at the University for Peace.

### **Concluding Remarks**

Many of us who attended the 23rd Pacem in Maribus Conference will never see the implementation of all ideas and proposals made at that conference. They might become a reality only after we are gone. But this is not a reason for not working with perseverance, passion and enthusiasm for their implementation.

A good example for me was that of Robert Schuman, the father of the European Union. He dreamt as a little boy that he would have the opportunity to suppress the borders between France, Germany and other European countries. He devoted his life to that dream, but he never saw the result. He died before his dream became true. In October 1994, when I crossed for the first time the abolished and totally uncontrolled border between France and Germany in my hometown of Sarreguemines in Lorraine, I remembered Robert Schuman who never had that joy. So I went to the little town of Scy-Chazelles where he rests in peace and reported it to him, my heart overflowing with gratitude for the miracle he had achieved. May some day members of the younger generation pay visits to our tombs and report to us the fulfilment of our dreams and utopias for this beautiful, heavenly planet and for the peace and happiness of all humanity. So help us God.



## **CONTRIBUTING AUTHORS**

## Contributing Authors

**Ronni Alexander** is Professor of Political Science at the Graduate School of International Cooperation Studies at Kobe University, Japan.

**Alicia Bárcena** was responsible for the drafting of Chapter 17 of *Agenda 21*, in preparation for the United Nations Conference on Environment and Development, 1992. Since then she has been Executive Director of the Earth Council in Costa Rica. Presently she is working on a major project for UNEP.

**Boleslaw A. Boczek** is Professor of International Law at Kent State University in Kent, Ohio, USA.

**Elisabeth Mann Borgese** is Professor of Political Science and Adjunct Professor of Law at Dalhousie University, Halifax, Nova Scotia, Canada, and Founder and Honorary Chair of the International Ocean Institute.

**Boutros Boutros-Ghali**, formerly Minister of Foreign Affairs of Egypt, was Secretary-General of the United Nations from 1992 to 1997.

**Fabio Castillo** is Professor at the University of El Salvador. He is a former President of El Salvador, and is President of the Committee for Peace Among the Peoples of Central America.

**Anthony Charles** is Professor at the Department of Finance and Management Science at Saint Mary's University in Halifax, Nova Scotia, Canada. He has led a number of projects with the International Development Research Centre of Canada, working in Asia and Latin America on fisheries socio-economics, integrated fish farming, biodiversity conservation, and sustainability of coastal systems.

**Erskine Childers** retired in 1989 from the position of Senior Adviser to the UN Director-General for Development and International Economic Cooperation. He is the author of numerous books. He co-authored, with Brian Urquhart, a comprehensive study on the Restructuring of the United Nations.

**Frederick Crickard** is a Rear Admiral, Rt. of the Royal Canadian Navy. He is a research associate with the Centre for Foreign Policy Studies at Dalhousie University, Nova Scotia, Canada.

**Quince Duncan** is Professor of History at the National University of Costa Rica. He is Coordinator of the Africinity Program of Central America.

**Richard Falk** is Albert G. Milbank Professor of International Law and Practice at Princeton University, USA. He is the author of numerous books. The latest is on *Humane Governance*.

**David Krieger** is the President of the Nuclear Age Peace Foundation in Santa Barbara, California, USA.

**Ramon Lopez-Reyes** is a member of the International Center for the Study and Promotion of Zones of Peace in San Salvador, El Salvador.

**Don Mills** was Jamaica's Ambassador to the United Nations. He is an Adviser to the Ministry of the Environment and Director of the Institute for Environmental Studies in Kingston, Jamaica.

**Robert Muller** is Chancellor of the University for Peace in Costa Rica, former Assistant Secretary-General of the United Nations, and the author of numerous books.

**Guillermo Quiros** is Professor of Oceanography and works at the Coastal Management Laboratory, SISAT Program, in the Physics Department of the National University of Costa Rica.

**Krishan Saigal** was the first Secretary of the Department of Ocean Development in India. He is the Executive Director of the International Ocean Institute.

**Danielle de St Jorre** is Minister of Foreign Affairs, Planning and Environment of the Seychelles.

**Mara Snippe** teaches Law at the Institute for Social Studies in the Hague, Netherlands.

**Surya P. Subedi** is Professor at the Law School of the University of Hull, U.K and the author of a book, *Land and Maritime Zones of Peace in International Law*, to be published by Oxford University Press, Oxford.

**John Vandermeulen** is a Research Professor of Habitat Chemistry at the Bedford Institute of Oceanography, Dartmouth, Nova Scotia, Canada.

**Hugh Williamson**, Barrister and Solicitor in Halifax, Nova Scotia, Canada, is Associate Professor of Maritime Law and Marine Affairs at the World Maritime University in Malmö, Sweden.

**Gregory L. Witol** is a research fellow with the Centre for Foreign Policy Studies at Dalhousie University, Nova Scotia, Canada.