

COASTAL ZONE CANADA '94

“Cooperation in the Coastal Zone”

**International Conference
Halifax, Nova Scotia, Canada
September 20-23, 1994**

CONFERENCE STATEMENT AND CALL FOR ACTION



**Coastal Zone Canada Association
Bedford Institute of Oceanography
P.O. Box 1006
Dartmouth, Nova Scotia
Canada B2Y 4A2**



April, 1996

**© Coastal Zone Canada Association 1996
Association Zone Côtière Canada 1996 ©**

ISBN: 1-896246-07-9

COASTAL ZONE CANADA '94 CONFERENCE STATEMENT

Coastal Zone Canada '94 was an international conference that brought together many of those who have responsibilities for management of the world's coastal zones, and representatives of people who reside and make their living in these areas. Out of a growing concern for the viability of critical coastal resources, they met to exchange ideas, information and approaches.

The rising human population and its increasing concentration in the coastal zone; the associated high levels of consumption and waste generation; a history of management decisions characterized by short-term goals; and the perpetuation of unresolved conflicts between resource users, all contribute to the increased pressure of human activities on the coastal zone and its resources.

In spite of these concerns, a consensus emerged that new, more meaningful and more effective solutions could be found to coastal zone problems. The conference participants expressed optimism that, by working with, rather than against natural ecosystem processes, more sensitive and rational management regimes could be devised that would permit the coastal zones of the world to be utilized in a sustainable manner, for generations to come.

Coastal Zone Canada '94 consisted of technical sessions and workshops that allowed the sharing of new knowledge and ideas about coastal environments and the various attempts made world-wide to manage them. These sessions were accompanied by a series of round table discussions, each of which attempted to address a major theme of integrated coastal zone management.

The central theme of the conference was "Cooperation in the Coastal Zone". Many of the contributions echoed this theme, and addressed a variety of key issues including:

- *Empowering local communities through community-based management.*
- *Strengthening coastal economies and dealing effectively with poverty.*
- *Recognizing the rights and interests of Indigenous peoples.*
- *Integrating traditional knowledge with conventional science.*

In order to develop effective coastal zone management practices based upon the various issues, it was also recognized that the manner in which agencies, organizations and governments have interacted in the past needs to undergo a radical change. All stakeholders will have to accept the necessity to develop skills and mechanisms that will effect:

- *Enhanced cooperation among all living in and/or responsible for the coastal zone.*
- *Empowerment of local communities and residents.*
- *Alleviation of poverty in coastal communities.*

A great many recommendations were made during the conference for achieving these ends. These constitute the basis for the Call for Action that is outlined in this document.

COASTAL ZONE CANADA '94

*International Conference
Halifax, Nova Scotia, Canada
September 20-23, 1994*

Introduction

From September 20-23, 1994, stakeholders in the coastal zone from around the world gathered in Halifax, Nova Scotia, Canada for the international conference *Coastal Zone Canada '94 (CZC '94)*. Over 700 people from 52 countries, representing the full cross-section of coastal zone interests were in attendance. These included officials of international agencies, federal/provincial-state/municipal government managers, scientists, politicians, business people, academics, community group leaders, aboriginal peoples, members of non-government organizations, students, fishers, artists, land owners and interested citizens.

The inspiration for Coastal Zone Canada '94 was two-fold. First, was the recognition of the need to maintain the substantial international momentum that has been generated for Integrated Coastal Zone Management (ICZM) in recent years. As Conference President Elizabeth Dowdeswell, and others associated with this event indicated... CZC'94 is the next step on the continuum of significant international developments which are designed to discuss and debate the key issues and approaches in ICZM and advance guidance and direction in the field. In 1992, there was UNCED in Rio that produced Agenda 21, and the Recommendation on ICZM issued by the OECD Council in Paris. In 1993, the World Coast Conference in The Netherlands introduced the Noordwijk Guidelines for

ICZM. And, in 1994, there was Coastal Zone Canada in Halifax.

Secondly, one of the most important lessons that has been learned during the relatively short history of ICZM around the world, is that it can only be effectively developed and implemented through an inclusive and cooperative approach that involves the people and communities living in and utilizing coastal areas. It was for this reason that the theme of "*Cooperation in the Coastal Zone*" was chosen. The entire conference process - from the make-up of the organizing committee, through to the representation in the conference sessions - reflected this essential mix of disciplines, perspectives and experiences.

Whereas many coastal conferences focus on legislation, policies and institutional arrangements, Coastal Zone Canada '94 was unique in that, in addition to the above, it explored in depth, the local or community level application of this developing art and science. This approach was partly a reflection of the realities of ICZM in Canada, where currently there are no formal national or provincial policies, legal instruments or institutions that focus exclusively and comprehensively on the coastal zone. Instead, as in many coastal states, there is a rich and developing mosaic of community-based and ecosystem-focused coastal management initiatives, large and small, underway.

It was also recognized that, in order to meet the many challenges faced in coastal areas, it is essential to build better working relationships among the various groups involved in and dependent upon coastal activities, and to involve them in decision making. It was the strong belief of the CZC '94 organizers that participation by people who live and work in the coastal zone was vitally important to achieve this goal.

The Conference Process

CZC '94 was very much a working conference. The objective was to bring together and draw upon the experience and perspective of a broad range of players in the coastal zone, to debate key issues shared by many coastal nations, and to reach consensus on present and future needs for effective planning and management of coastal and marine areas. Participants from diverse backgrounds and interests sat with representatives of groups and disciplines that they perhaps were not used to working with.

Through five pre-conference workshops, 49 technical paper sessions, 23 interactive workshops, and 14 focused round tables, an initially tentative, then greater dynamic emerged among the majority of the groups as they started to learn about and appreciate each others' rights and perspectives, discover the foundations of trust, and define the basis for effective and collaborative working relationships.

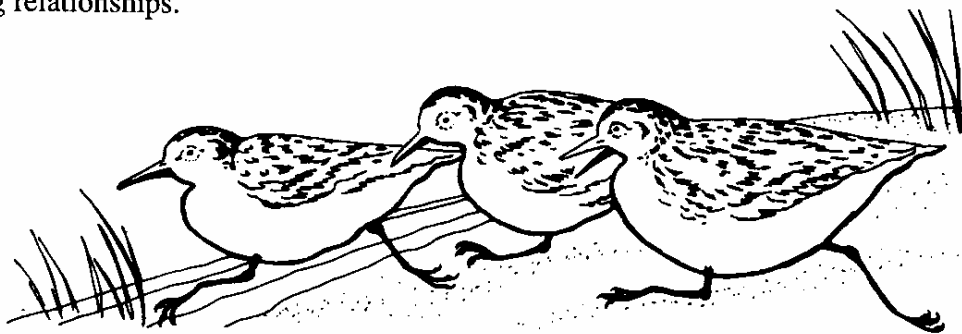
The results of all sessions were summarized and brought forward to a conference panel and integrated into a preliminary list of actions that was presented at the final plenary session. These key points, together with the distillation of the lively discussion that took place throughout the conference are presented in the following pages. During the period between the end of the conference and the publication of this document, a draft Conference Statement and Call for Action was sent to all conference attendees and others. Their comments are reflected in this version.

The Global Context

There has been considerable discussion internationally, particularly in the first half of the 1990s, on the subject of Integrated Coastal Zone Management (ICZM), and there has been a proliferation of ICZM efforts worldwide. Integrated coastal zone management has been recognized by nations and the international assistance community to be the most appropriate process to address current and long-term coastal management issues.

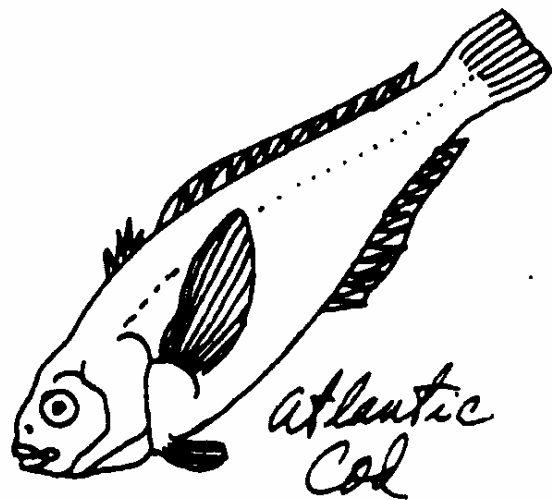
In terms of recent international events that have addressed ICZM and developed guidance on the concept, several stand out as key events. These include:

- The 1992 Rio Declaration on Environment and Development.



- The UNCED Conventions on Biological Diversity (1992) and Climate Change (1993).
- Programme Area A - Integrated Management and Sustainable Development of Coastal and Marine Areas, Including Exclusive Economic Zones, of the United Nations Conference on Environment and Development (UNCED), Agenda 21, Chapter 17 on Protection of the Oceans, All Kinds of Seas, Including Enclosed and Semi-Enclosed Seas, and Coastal Areas and the Protection, Rational Use and Development of Their Living Resources (1992).
- Organization for Economic Cooperation and Development (OECD) Recommendation of the Council on Integrated Coastal Zone Management (adopted by the Council at its 787th Session on 23 July, 1992).
- The 1993 Intergovernmental Panel on Climate Change Report on Global Climate Change and the Rising Challenge of the Sea.
- The Noordwijk Guidelines for Integrated Coastal Zone Management (1993).
- The 1994 Lisbon Declaration on Implementation by Local Authorities of the Marine Chapter of UNCED's Agenda 21.
- Integration and Cooperation, National and International.
- Enhancing Conservation and Protection of Coastal Ecosystems
- Education, Training and Capacity Building for Coastal Zone Management.
- Science and Technology in Support of Coastal Zone Management.
- Data and Information Management and Exchange.
- Ameliorating the Impacts of Natural Disasters and Climate Change.
- Balancing Rights of Access.
- Legislation, Regulations and Socio-Economic Instruments.
- Enhancing Political Will and Sustained Commitment to the Coastal Zone.

The Conference Call for Action that follows, is organized to reflect the four key issues that emerged at Coastal Zone Canada '94 as well as these international themes.



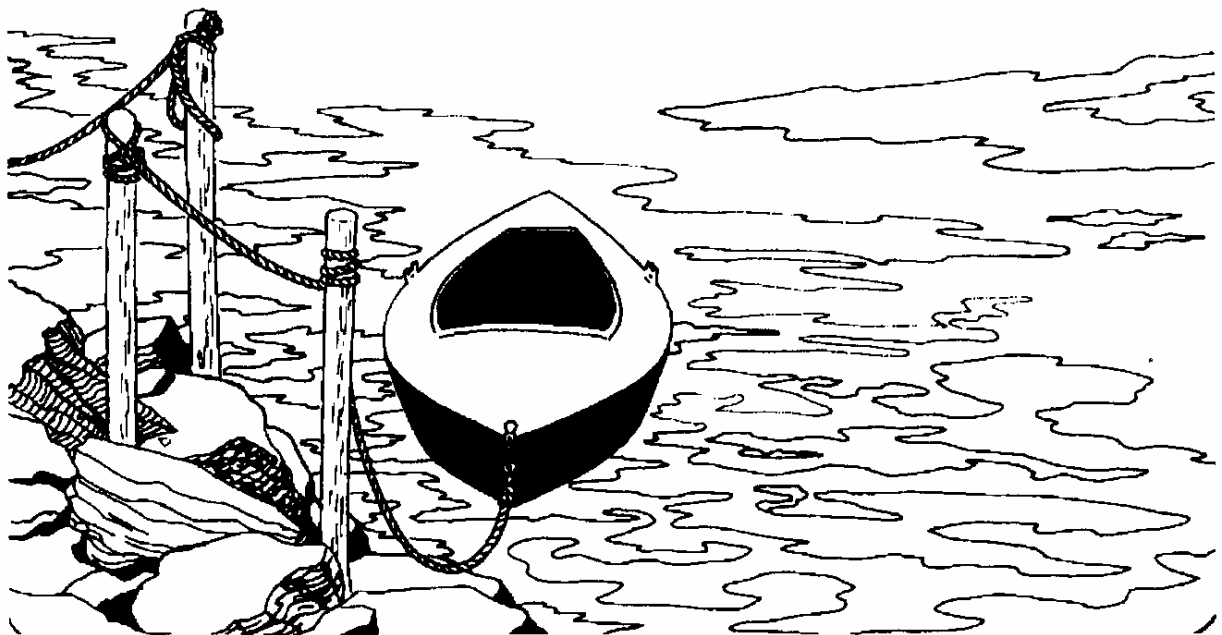
Within these international agreements/ events, certain themes have emerged as common or central to the advancement of ICZM. These include:

Coastal Zone Canada '94 **CALL FOR ACTION**

The participants at Coastal Zone Canada '94, while agreeing that coastal states are faced with a broad range of short- and long-term challenges, and recognizing the many different cultures, political systems, economies and ecosystems comprising coastal areas world-wide, noted with particular concern the need for:

- *Empowering local communities through community-based management.*
- *Strengthening coastal economies and dealing effectively with poverty.*
- *Recognizing the rights and interests of Indigenous peoples.*
- *Integrating traditional knowledge with conventional science.*

These issues, taken together with nine key themes that have emerged in international agreements and other events, constitute the framework within which the recommendations of this conference are presented.



Empowering Local Communities Through Community-Based Management

The Conference Participants at Coastal Zone Canada '94 in Halifax in September, 1994 ...

BEING AWARE OF

Principle 10 of the Rio Declaration...

“Environmental issues are best handled with the participation of all concerned citizens at the relevant level...[and that] each individual shall have...the opportunity to participate in decision-making processes” and

Objective 17.5 (f) of Programme Area A of Chapter 17 of UNCED Agenda 21...

“Provide access, as far as possible, for concerned individuals, groups and organizations to relevant information and opportunities for consultation and



participation in planning and decision-making at appropriate levels” and

Paragraphs 17.17(b)“*Consulting on coastal and marine issues with local administrations, the business community, the academic sector, resource user groups and the general public*”; and 17.17(h)“*Supporting pilot demonstration programmes and projects in integrated coastal and marine management*”.

NOTING THAT

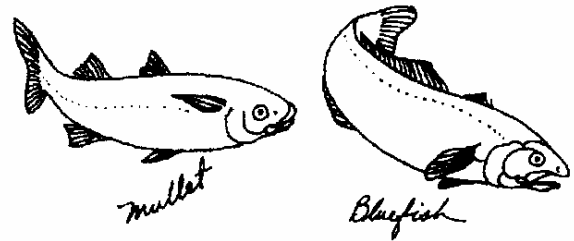
Co-management is an Essential Element of Coastal and Oceans Resource Management

- Co-management should be recognized as a principle objective in the coastal zone.
- Management plans and institutional structures must be designed in response to geographic, socio-economic, ecological, scientific and jurisdictional issues.

Decision-making Processes that Exclude Key Stakeholders Are Not Conducive to ICZM

- Effective management requires an ‘interest-based’ decision-making process that recognizes the central role of coastal communities and involves all stakeholder groups.

- The equitable allocation of coastal resources, recognizing competing but legitimate uses and interests, must be achieved within the framework of sustainable development.



Community-Based Decision Making Must Be Supported

- There is a lack of effective policy and administrative support for community-based coastal zone management.

Public Participation Must Be Meaningful and Effective

- Failure to incorporate community values into long-term coastal management and coastal stewardship programs frustrates attempts to establish sustainable coastal communities.
- Consultation does not equal empowerment; governments need to understand the critical connection between sustainable development and meaningful public participation in decision-making.

RECOMMEND

Co-Management Be Included as an Essential Element in Coastal and Oceans Management

- Make provision for full stakeholder participation at the community level in decision-making, and ensuring integration with broader regional, national and international resource management initiatives.

- All governments should work together in building capacity among community stakeholders in order to make co-management possible in the coastal zone.

- Identify the roles and responsibilities of stakeholders, adopt inclusive programs for both public participation and conflict resolution, and endeavour to build trust through fair, effective and responsive processes.

- Develop standards and procedures for community participation. This should include the joint identification, by government and communities, of management principles, as well as the establishment of resources and other support such as coastal community networking.

- Adapt decision-making to reflect an ecosystem-based approach that focuses on sustainable development. This approach must be implemented within a multi-stakeholder forum.

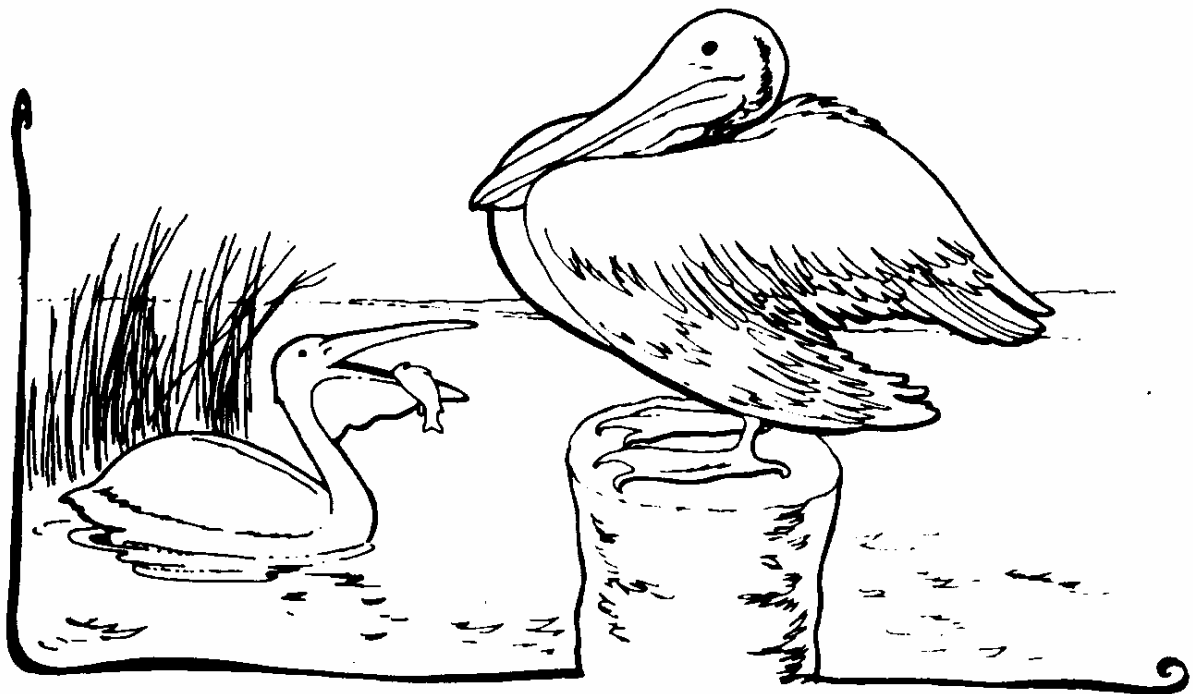
Community-Based Decision-Making Be Actively Supported

- Establish long-term strategic plans, based on the identification of local strengths, weaknesses, opportunities and constraints.

- Mobilize local groups and provide political and institutional support for community-based decision-making. Central governments should provide seed funding to establish self-sustaining local management groups to enable community-based planning and decision-making.
- Promote successful examples of community-based resource management through conferences, networks, publications, exchanges and training courses.
- Encourage the development of community-led remedial action programs. Communities should be encouraged to take responsibility for resolving pollution issues.
- Incorporate community values into coastal zone planning and management.

Public Participation Must Be Meaningful and Effective

- Encourage community organizations to advocate and participate in the development of policy.
- Devolve authority and appropriate resources to local resource management groups and demonstrate systematic successes towards clearly identified goals.



Strengthening Coastal Economies and Dealing Effectively with Poverty

The Conference Participants at Coastal Zone Canada '94 in Halifax in September, 1994...

BEING AWARE OF

Principle 3 of the Rio Declaration... *“The right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations”* and

Principle 5... *“All States and all people shall cooperate in the essential task of eradicating poverty as an indispensable requirement for sustainable development, in order to decrease the disparities in standards of living and better meet the needs of the majority of the people of the world”* and

The Lisbon Declaration... *“ Aware that the current state of the marine environment... demonstrates the vital economic importance of the coastal zone and that the continued ability of coastal zones to support present and future needs is dependent on the maintenance of marine ecosystems, many of which are under unacceptable and increasing threats.”*

NOTING THAT

International Decision-Making Can Have a Significant Economic Impact at the Local Level

- Priorities within the coastal zone for economic development, as well as conservation and protection, must be sensitive to local as well as global issues.
- International and national decision-making can impact dramatically on local economies. For example, foreign ownership and control of major industries such as tourism can result in little local economic benefit and may in fact be an obstacle to ecological, cultural and economic sustainability in some communities and small island states.

Historic Resource Management Approaches often Work Against Sustainable Development

- Historic fisheries policies have worked against community economic diversification in many areas.

Poverty is a fundamental constraint to sustainable economic development in the coastal zone.

- Population growth, inequitable distribution of wealth, and poverty are fundamental constraints to conservation and protection on a global scale, as well as to the achievement of sustainable economic development.

RECOMMEND

Dealing Decisively with Poverty and Inequity

- Develop practical solutions to poverty issues through the cooperative efforts of economists, scientists and community representatives.
- Establish mechanisms to assist developing countries in addressing poverty issues where these constrain their ability to meet environmental obligations.

Ensuring that the Impacts of International Decision-Making are Fully Accounted for at the Local Level

- Require evaluation of implications of proposed international actions on local economies as an integral part of negotiation and ratification of international agreements, protocols and procedures.
- Establish more equitable partnerships between coastal nations and international tourism operators, which are more accountable to coastal communities, and which include local interests in tourism planning. Utilize mechanisms which will provide a sharing of both costs and benefits.

Ensuring Compatibility Between Strategic Development Programs and the Principles of Sustainable Development

- Evaluate and re-direct all economic development programs sponsored by governments to ensure they are contributing to the advancement of sustainable development.
- Devise innovative methods of equipping communities for action, e.g., local taxation capabilities to provide a revenue base for local action.

Targeting Specific Resource Industries for Development Where Appropriate

- Identify opportunities for alternative resource development in the coastal zone. For example, encourage communities to consider non-renewable resource extraction as a legitimate coastal activity when undertaken in a sustainable way and where multiple resource interests are fully accounted for.



Recognizing the Rights and Interests of Indigenous Peoples

The Conference Participants at Coastal Zone Canada '94 in Halifax in September, 1994...

BEING AWARE OF

Principle 22 of the Rio Declaration...
"Indigenous people and their communities, have a vital role in environmental management and development because of their knowledge and traditional practices. States should recognize and duly support their identity, culture and interests and enable their effective participation in the achievement of sustainable development."

NOTING THAT

There is a Need to Fully Incorporate Aboriginal Interests into Co-Management Plans

- Co-management must recognize equitable partnerships among all levels of government, including Aboriginal governments.

Meaningful Ways of Incorporating Aboriginal Beliefs into Sustainable Development Must be Found

- Traditional European and Western approaches to resource management have commonly excluded Aboriginal values. Differences must be reconciled.

There is a Need to Build Trust

- Specific steps toward building trust and mutual respect between Indigenous and Non-Indigenous groups need to be taken. The question of whether Indigenous stakeholders have special status, as opposed to being merely one of many stakeholder groups, must be resolved.

RECOMMEND

Building Partnerships with Aboriginal Peoples

- Recognize and include Aboriginal groups in decision-making processes through the establishment of effective partnerships that recognize and incorporate Indigenous tenure, local knowledge and traditional resource management practices.

Integrating Alternative World Views into Broader Sustainable Development Strategies

- Incorporate Indigenous world views into new perspectives on resource management. Aboriginal spirituality must be considered as an integral aspect of sustainable development.
- Improve environmental impact assessment guidelines to include impact assessment on Indigenous homelands.

Integrating Traditional Knowledge with Conventional Science

*The Conference Participants at Coastal
Zone Canada '94 in Halifax in September,
1994 ...*

BEING AWARE OF

Principle 22 of the Rio Declaration....

*"[local] communities, have a vital role in
environmental management and
development because of their knowledge and
traditional practices. States should
recognize and duly support their identity,
culture and interests and enable their
effective participation in the achievement of
sustainable development."*

NOTING THAT

Traditional Knowledge has Historically Been Undervalued

- Communities have a great deal of valuable traditional knowledge that is not being considered by scientists and technologists. Scientists and resource users within coastal communities rely on different traditions i.e., conventional science vs. traditional knowledge. Co-management requires both scientific information and traditional knowledge.

The Level of Trust Between the Scientific Community and the Local Community Needs to be Strengthened

- Developing trust between fishers and scientists is essential for effective coastal resource management.
- Communication between scientists and the general public must be significantly improved. The ability of scientists and managers to communicate effectively with the public and become involved in critical coastal community issues is dependent on their ability to build trusting partnerships with community leaders and members.

RECOMMEND

Knowledge Building Amongst all Stakeholder Groups

- Equip all stakeholders with accurate and understandable scientific information as well as traditional knowledge.
- Encourage scientists to communicate more effectively with local community groups, and to act on the ideas expressed through public participation.
- Increase scientific research efforts, with local community input, in identifying and understanding the functioning of coastal ecosystems.

The Establishment of Effective Partnerships

- Establish cooperative mechanisms and partnerships that enable the appropriate integration of science, policy, technology and traditional knowledge.
- Develop ways of incorporating traditional knowledge in scientific models along with scientific knowledge.

Building Trusting Relationships

- Establish working relationships to foster trust between all interested parties in the coastal zone. Develop opportunities for education and training where fishers and scientists can engage in on-going dialogue.



Integration and Cooperation, National and International

The Conference Participants at Coastal Zone Canada '94 in Halifax in September, 1994...

BEING AWARE OF

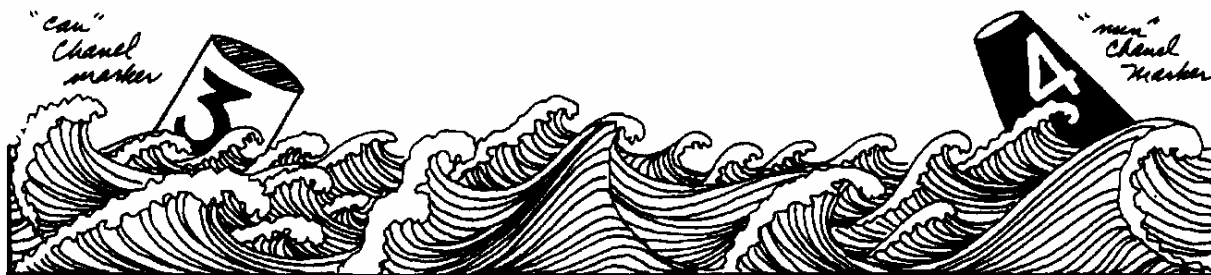
Objective 17.5(a) of Programme Area A of Chapter 17 of UNCED Agenda 21...

"Provide for an integrated policy and decision-making process, including all involved sectors, to promote compatibility and a balance of uses" and

Management-Related Activity 17.6 of Chapter 17 of UNCED Agenda 21... *"Each coastal State should consider establishing, or where necessary strengthening, appropriate coordinating mechanisms (such as a high-level policy planning body) for integrated management and sustainable development of coastal and marine areas and their resources, at both the local and national levels. Such mechanisms should include consultation, as appropriate, with the academic and private sectors, non-governmental organizations, local communities, resource user groups, and indigenous peoples" and*

OECD Council Recommendation I on ICZM... *"...that, to help achieve the goals of ecologically sustainable development and integrated resource management, strategic planning and integrated management of coastal zones should be developed and implemented by Member countries, through: Defining policy objectives specific for the coasts and their resources to provide guidance to and enhance coordination of national, regional and local government strategies/plans for coastal zones; and Strengthening the integration and harmonization of sectoral policies affecting coastal zone management and resource usage" and*

Paragraph 17.10 of Chapter 17 of UNCED Agenda 21... *"The role of international cooperation and coordination on a bilateral basis and, where applicable, within a subregional, interregional, regional or global framework, is to support and supplement national efforts of coastal States to promote integrated management and sustainable development of coastal and marine areas".*



NOTING THAT

There is a Need for Coastal Nations to Embrace a New Vision for Coastal and Ocean Management

- All coastal nations need to adopt a national vision and participate in the formulation of a global vision for the sustainable development of the ocean. Such a vision must include ecological, economic and social dimensions and must successfully integrate global and local concerns.
- Integrated coastal zone management, including policy development and implementation, should incorporate accountability, transparency and meaningful community participation.
- Inadequate progress in addressing oceans and coastal issues results from a lack of coordination at national, regional and international levels.

Greater Progress is Required in Securing Cooperation Globally

- International environmental obligations are often not fully implemented or adequately enforced. Greater compliance on international agreements, conventions and protocols must be secured.
- Regional and international cooperation is needed in order to manage shared resources. Enhanced cooperation and consistency in management regimes for high seas and straddling stocks must be achieved.

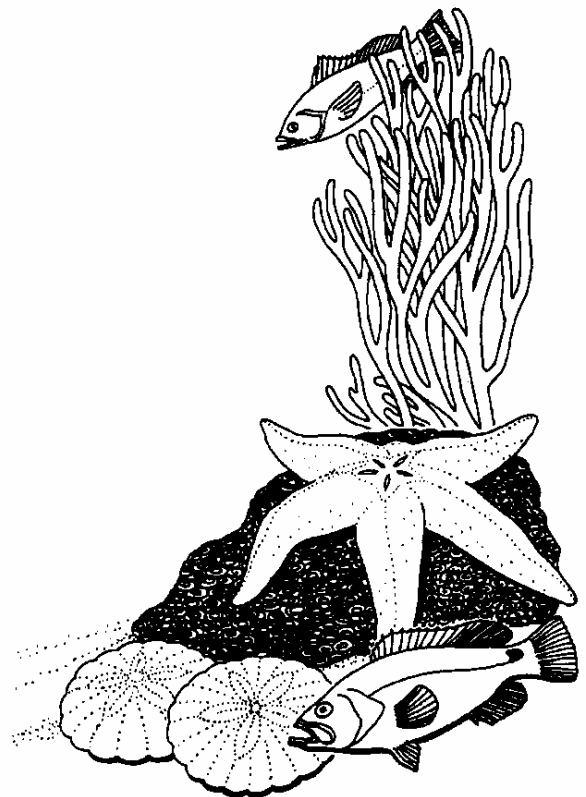
Better Communication and Cooperation is Required

- Improved dialogue between developed and developing countries through partnerships and education linkages is needed.
- Science, management and policy are not well integrated or coordinated at national and international levels.

RECOMMEND

Establishment of Appropriate Focal Points for Coastal and Oceans Management

- Challenge an existing organization, with mechanisms at the international level designed to deal with oceans and coastal zone management issues, to better coordinate policy, and to eliminate duplication of effort.



- Develop inter-jurisdictional cooperative programs (e.g., East Coast of North America Strategic Assessment Project [ECNASAP]; South Pacific Advisory Council [SOPAC], Gulf of Maine Council on the Marine Environment).

Developing Standards for Implementing Integrated Coastal Zone Management

- Establish guiding principles, and innovative mechanisms for, implementation of ICZM. Amongst other principles, these should include: recognition of sensitive areas; long-term sustainability; fairness, rationality, flexibility, accountability, and transparency as well as processes for monitoring and review.
- Develop management frameworks comprised of community guidelines, regional objectives and national standards.

Ensuring Consistency Between Coastal Policies and the Principles of Sustainable Development

- Undertake a comprehensive review of policy with a view to making changes where necessary to make them consistent with sustainable development objectives.
- Undertake remedial action, amend legislation, make allowances (where necessary) for coexistence of past and current practices, but prevent new incidences of non-sustainable practices.

Recognition of International Conventions by all Coastal Nations

- Ratify the High Seas Convention on the Management of Straddling Stocks and Highly Migratory Species as well as UNCLOS III.
- Develop more effective procedures for enforcing existing international conventions, protocols and agreements.
- Promote and monitor Agenda 21 objectives for the coastal zone including the adoption of integrated oceans policies at regional and national levels with more effective enforcement measures.

Enhancing Conservation and Protection of Coastal Ecosystems

The Conference Participants at Coastal Zone Canada '94 in Halifax in September, 1994...

BEING AWARE OF

Management-Related Activities 17.6(h) of Chapter 17 of UNCED Agenda 21 which emphasizes... "*Conservation and restoration of altered critical habitats*" and

17.7... "*Coastal States, with the support of international organizations, upon request, should undertake measures to maintain biological diversity and productivity of marine species and habitats under national jurisdiction. Inter alia, these measures might include: surveys of marine biodiversity, inventories of endangered species and critical coastal and marine habitats, establishment and management of protected areas, and support of scientific research and dissemination of its results*" and

IPCC CZM Subgroup Report Finding 5... "*the potential global impact of accelerated sea-level rise on coastal wetlands could be substantial.*"

NOTING THAT

Conservation and Protection of Marine Resources is Required

- General environmental and ecological degradation is seriously affecting parts of the world's oceans (e.g., pollution in coastal waters continues to be a problem

in many parts of the world as a result of inadequate sewage treatment and land-based, non-point source pollution).

- Conservation and protection of coastal ecosystems, landscapes and heritage sites could be significantly enhanced by the establishment of carefully designed marine conservation and protection areas.
- Emphasis should be placed on the conservation of coastal bio-diversity, sustainable use of biological resources and maintenance of ecological systems (i.e., local and planetary support systems).
- Marine resources, when treated as common property resources, are not properly valued when exploited on an unsustainable scale and/or without reference to ecological limits or social responsibilities.

Internationally Recognized Standards in Pollution Control are Required

- International standards and practices governing the removal, treatment and disposal of contaminated sediments should be considered.

Eco-tourism Must be Managed Effectively

- Eco-tourism may be threatened by, or may result in, unplanned and undesirable development.

RECOMMEND

Adopting an Ecosystem-Based Approach to Resource Management

- Adopt a more holistic and long-term view of resource management by incorporating ICZM principles into the planning process.
- Focus on ecosystems and habitat protection as opposed to stock protection. Develop models for ecosystem and habitat needs of fish populations.
- Maintain enough habitat to sustain or restore natural biotic populations using ecosystem studies and modelling. Incorporate appropriate human activity controls to minimize direct loss of habitat or encroachment into habitat.
- Determine the implications of sustainable development in the exploitation of mineral resources.

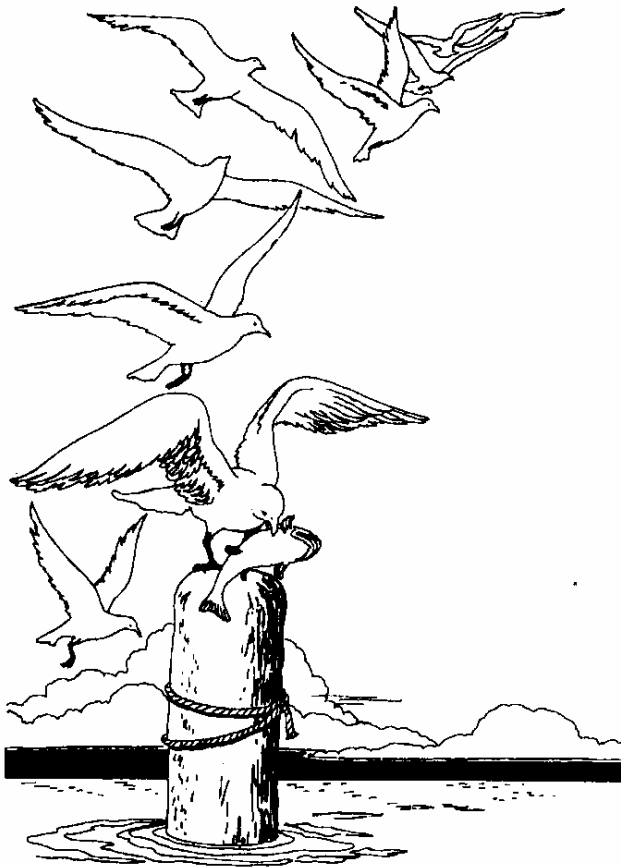
Take Steps to Protect Valuable Coastal Resources

- Stop destructive fishing methods and develop sustainable fisheries practices.
- Establish a system of marine parks, national seashores, no-take marine conservation areas and coastal heritage sites.
- Establish coastal conservancy groups to speak for the values of natural (i.e., undeveloped) coastline and to assist with the preservation of natural coastal areas.

- Ensure, to as great an extent as possible, that resource development activities in the coastal zone are non-intrusive and that valuable coastal resources, both natural and historical, are sensitively interpreted.
- Incorporate local support in planning and management of marine conservation areas.

Setting Standards to Reduce Environmental Contamination

- Continue the development and improvement of international standards, e.g., for contaminated sediments.
- Adopt stronger measures to control the introduction of exotic species, e.g., ballast water introductions should be strictly controlled.



Education, Training and Capacity Building for Coastal Zone Management

The Conference Participants at Coastal Zone Canada '94 in Halifax in September, 1994...

BEING AWARE OF

Principle 10 of the Rio Declaration...“...At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on... activities in their communities,... States shall facilitate and encourage public awareness and participation by making information widely available...” and

Management-related Activities 17.6(k) of Chapter 17 of UNCED Agenda 21...“Human resource development and training” and 17.6(l)...“Public education, awareness and information programmes” and

Chapter 17, Paragraphs 17.15...“Coastal States should promote and facilitate the organization of education and training in integrated coastal and marine management and sustainable development for scientists, technologists, managers including community-based managers and users, leaders, indigenous peoples, fisherfolk, women and youth, among others. Management, development, as well as environmental protection concerns and local planning issues should be incorporated in educational curricula and public awareness campaigns, with due regard to traditional ecological knowledge and socio-cultural values” and

Paragraph 17.17...“Full cooperation should be extended, upon request, to coastal States in their capacity-building efforts and, where appropriate, capacity-building should be included in bilateral and multilateral development cooperation...” and

Paragraph 17.17(f)...“Promoting and facilitating human resource development and education.”

NOTING THAT

Innovation and Creativity are Required in Educational Efforts

- Building capacity (e.g., specifically the development of human resource skills) within communities to enhance coastal resource management is required.
- Education and training is critical to successfully implementing a bottom up/ top down approach to integrated coastal zone management.

RECOMMEND

Taking a Broad Approach to the Development of Marine and Coastal Resource Education Programs

- Develop outreach programs in ICZM that teach and promote appreciation for resources, alternative sustainable practices, and the impacts of various methods.

- Provide training in integrated policy formulation in ICZM through intercommunity and international exchange programs.
- Utilize newspaper, local radio and television, Internet and other publicly accessible media outlets for training.

Developing Focused Education Programs Specifically Aimed at the Community Level

- Sponsor and develop education and training programs, including scientific programs, at central and community levels of decision-making.
- Expand leadership training to facilitate a broader inclusion of community members in training, education and decision making.
- Inform the population, through educational programs and other means, that renewable resources will disappear if mismanaged.

Specific Modifications to University Level Education Programs

- Tailor university outreach programs related to ICZM to meet the specific educational needs of coastal communities, including community values, local knowledge, conflict resolution and communication of technical information.
- Equip scientists and managers with public communication skills as part of their university training in order to develop more effective cooperative relationships with community leaders.

Modifications to Public School Programs

- Approach school boards to include community economic development, environmental conservation, ICZM and vocational skills at elementary and secondary school levels.



Science and Technology in Support of Coastal Zone Management

The Conference Participants at Coastal Zone Canada '94 in Halifax in September, 1994...

BEING AWARE OF

Principle 9 of the Rio Declaration...*“States should cooperate to strengthen endogenous capacity-building for sustainable development by improving scientific understanding through exchanges of scientific and technological knowledge, and by enhancing the development, adaptation, diffusion and transfer of technologies, including new and innovative technologies”* and

Management-related Activities 17.6(m) of Chapter 17 of UNCED Agenda 21...*“Promoting environmentally sound technology and sustainable practices”* and

Chapter 17, Paragraph 17.13...*“States should cooperate in the development of necessary coastal systematic observation, research and information management systems. They should provide access to and transfer environmentally safe technologies and methodologies for sustainable development of coastal and marine areas to developing countries. They should also develop technologies and endogenous scientific and technological capacities”* and

OECD Council Recommendation II on ICZM...*“that, in view of the diverse and often conflicting uses of and pressures on coastal zone resources, Member countries should employ policy instruments,*

individually or in combination, in integrated coastal zone planning and management including: collection and updating of relevant information, and development of coastal environmental indicators to guide planning and monitoring of coastal zone activities and processes; and establishment of environmental objectives...”

NOTING THAT

The Value of Science and Technology in Coastal Management Requires Reinforcement

- Scientific and technological research, which are ecosystem based, have significant roles to play in coastal zone management.
- A common vision, goals and attainable objectives in mobilizing and integrating science and technology for the coastal zone must be embraced.

The Developed World has a Special Responsibility to the Developing World

- Some nations will require assistance in meeting international environmental objectives.
- Information and technology transfer between developed and developing countries must be improved (e.g., technology that is affordable and appropriate to local situations must be developed and transferred).

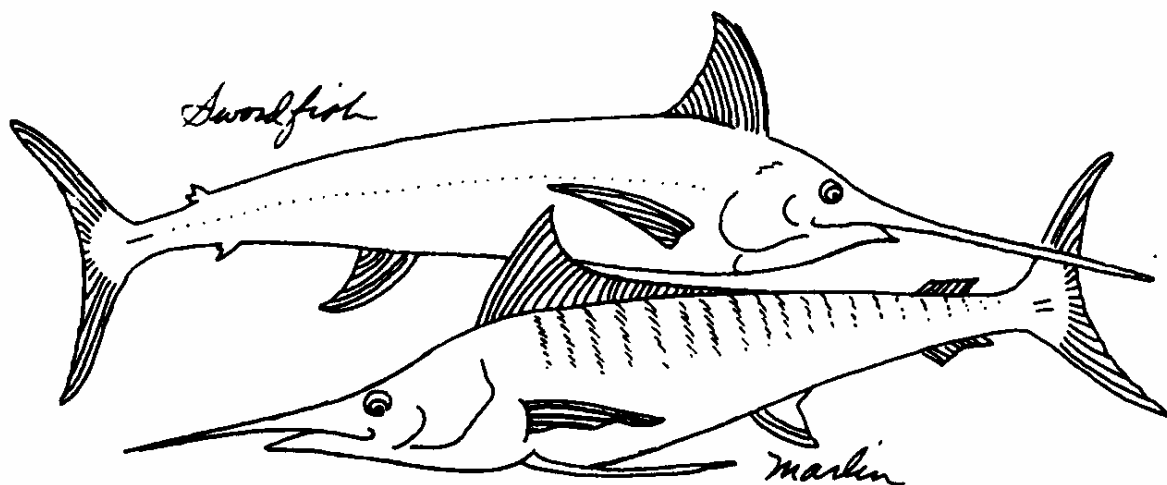
Advancements in Science and Technology are Threatened by Funding Constraints

- The present ability to maintain science and technology research capacity is being limited by funding pressures on government and academic laboratories, an aging scientist population, loss in momentum and decreasing capital in basic research.
 - Science and technology impacts on economic and resource development. It can create wealth, jobs and exports or it can lead to the over-exploitation of resources with consequent damage to ecosystems.
- Define the mission, set attainable goals and develop a strategy for science and technology for the coastal zone, based on principles that recognize: total quality management; pro-action vs. reaction; client-driven, quality-based approaches; community empowerment; key stakeholders; options for re-investing savings; and cooperation and partnerships.
 - Involve the following elements in mobilizing science and technology in the coastal zone: basic research capacities; more interaction between the science and technology community and front-line users; a mixture of sectors (i.e., private, government and academic); and a balance of strategic and basic research.

RECOMMEND

The Establishment of Mechanisms and Focal Points of Responsibility

- Establish cooperative mechanisms to foster the mobilization and integration of science and technology for the coastal zone.
- Ensure adequate research, monitoring, and review and modification processes are established within strategic research plans in order to ensure conservation goals are being met.

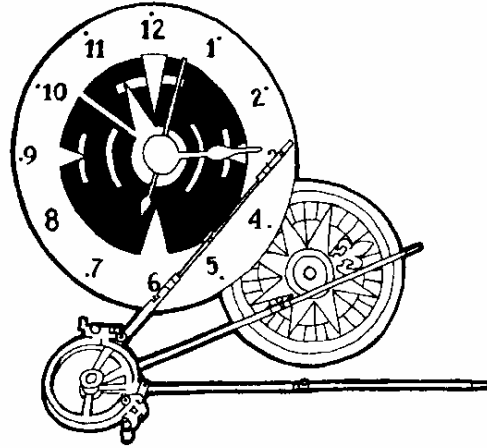


The Establishment of Effective Partnerships

- Improve cooperation among international science organizations by sharing technology development among the different sectors and interests and encourage interdisciplinary approaches to scientific research, technology development and technology transfer.
- Develop initiatives that establish partnerships between public and private organizations for the purpose of sustainable development.

Improving the Development and Transfer of Technology

- Use local coastal management issues as a basis for developing technology.
- Provide for transfer of technology, information and expertise from developed to developing countries in more effective ways and convey the limitations of science and technology to coastal communities, resource managers, the media and other users in understandable ways.
- Develop technology at a cost appropriate to its use.



The Promotion of Research in Support of Sustainable Development

- Orient research agendas to support Agenda 21 objectives.
- Standardize environmental indicators in comprehensive environmental monitoring programs.
- Promote research to determine the relationship between habitat, water circulation and sedimentary processes.
- Promote research to assess the economic, social and environmental impacts of tourism in the coastal zone.
- Adopt broad ecosystem approaches to CZM that take into account the interactions among all biological elements of the chosen area as well as the relationships to physical and chemical processes in the same area.
- Develop indicators for gauging ecosystem health and the degree of success of the imposed management systems.
- Support the international Land-Ocean Interaction in the Coastal Zone (LOICZ) network.

Data and Information Management and Exchange

The Conference Participants at Coastal Zone Canada '94 in Halifax in September, 1994...

BEING AWARE OF

Paragraph 17.8 of Chapter 17 of UNCED Agenda 21... "*Coastal States, where necessary, should improve their capacity to collect, analyse, assess and use information for sustainable use of resources, including environmental impacts of activities affecting the coastal and marine areas. Information for management purposes should receive priority support in view of the intensity and magnitude of the changes occurring in the coastal and marine areas.*"

NOTING THAT

Access to Data and Information is not Uniform

- Inequities exist amongst stakeholders in the access to, availability, and distribution of some data and information.
- Pre-occupation with cost recovery and revenue generation by governments threatens to further reduce data and information availability.
- Communities often cannot afford to pay for information from the private sector.

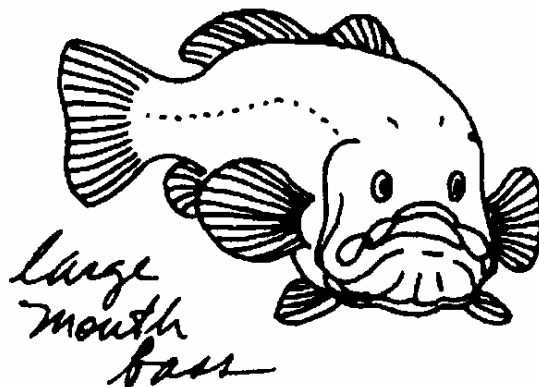
- Constraints to good working relationships occur between government and communities (e.g., scientists are reluctant to share scientific and technical data with communities).

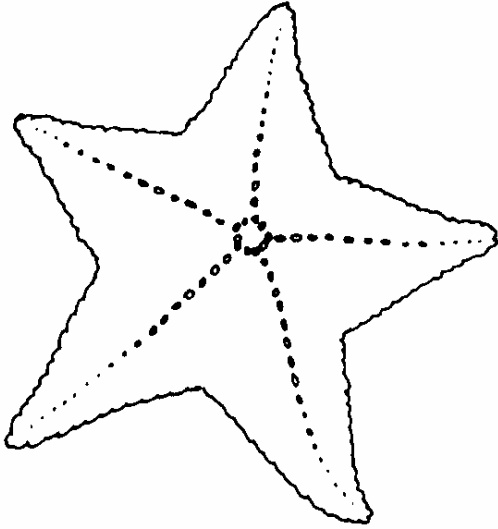
Proprietary Rights in Data and Information Remain Unclear

- The question of ownership, and copyright of scientific and technological data and information, remains unresolved.
- The respective roles of government and the private sector in science and technology, and in data and information management, need to be defined.

Standards for Ensuring Data Quality Must be Established

- The quality and reliability of data must be improved and difficulties in sharing data overcome.





RECOMMEND

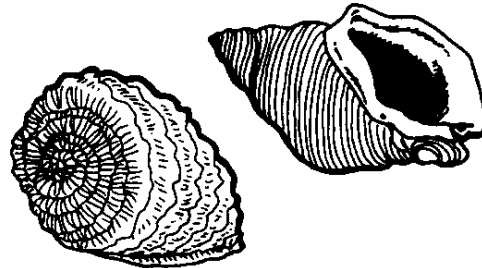
Taking Steps to Improve Availability of and Access to Data and Information

- Establish effective mechanisms for improving access to, as well as sharing of, data and information.
- Develop information technology that facilitates access to data and information, is user-friendly and is oriented toward clients and services.
- Resolve ownership and copyright issues concerning data from government and the private sector.
- Alter the reward system for scientists, agencies and organizations to encourage the transfer of data, information and knowledge.
- Develop and implement new international protocols to ensure the availability of coastal zone data.
- Facilitate networking amongst ecosystem managers.

- Compile and make available inventories of resource and environmental data organized appropriately for coastal zones.
- Make biological and oceans data collected by governments available.
- Devise information networks, as required, to meet end user needs.

Ensuring Appropriate Data and Information Standards are in Place to Facilitate Data Sharing

- Establish standards for data and metadata.
- Develop a science and technology information policy to make data available in an understandable form and at a reasonable cost.



Ameliorating the Impacts of Natural Disasters and Climate Change

The Conference Participants at Coastal Zone Canada '94 in Halifax in September, 1994...

BEING AWARE OF

Management-related Activities 17.6(c) of Chapter 17 of UNCED Agenda 21...
“Preparation of coastal profiles identifying critical areas, including eroded zones, physical processes, development patterns, user conflicts and specific priorities for management” and

17.6(e)...*“Contingency plans for human-induced and natural disasters, including likely effects of potential climate change and sea-level rise, as well as contingency plans for degradation and pollution of anthropogenic origin, including spills of oil and other minerals”* and

Intergovernmental Panel on Climate Change CZM Subgroup Finding 1...*“the urgency of implementing strategies for adapting to sea-level rise is greater than previously thought because of both the long lead time needed for planning and factors not related to climate change”* and

Recommendation 1...*“coastal states should assess their vulnerability to an accelerated rise in sea level and to other potential coastal impacts of global climate change”*.

NOTING THAT

Cooperation Must be Improved in Anticipating Natural Disasters in Coastal Areas

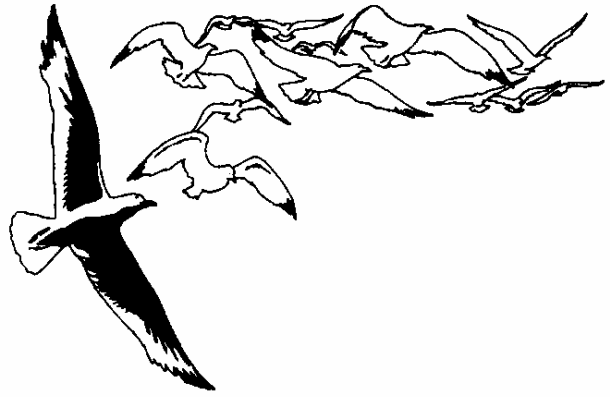
- Communities, governments, scientists and the media must cooperate to prepare for and respond to natural disasters and deal with long-term climate change and the subsequent threat of sea-level rise and sea temperature changes.
- Communication and education about natural hazards and sea-level rise is required.

RECOMMEND

Taking Steps to Address Natural-Disaster and Climate-Change Issues

- Decrease the vulnerability of the coastal zone by developing coastal zone emergency response plans and developing methods for managing extreme events when they occur.
- Improve public awareness through the use of formal and informal methods of education and improve communication and cooperation among the diverse interests involved.
- Cooperate with the media to encourage effective communication of predictions, mitigation, warning and response actions, and maintaining natural systems flexibility in adapting to sea-level change.

- Improve risk assessment by reducing uncertainty through research, engaging in long-term statistical monitoring programs for the prediction of progressive and extreme events and quantifying uncertainties and explaining their ramifications.
- Improve community perceptions of benefits and risks of coastal zone development and demonstrate the economic and social costs and benefits of risk assessment.
- Increase public awareness of the risks of natural hazards in the coastal zone and the benefits of ICZM.



Balancing Rights of Access

The Conference Participants at Coastal Zone Canada '94 in Halifax in September, 1994...

BEING AWARE OF

The fact that access to the coastal zone in many parts of the world, whether it be for recreation, mineral exploration or eco-tourism, is becoming increasingly restricted by shoreline development.

NOTING THAT

There is an Inherent Right of Access

- There are public rights of access in the coastal zone which must be protected.

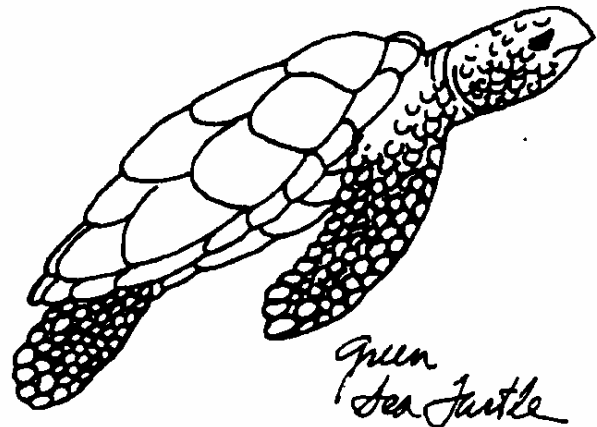
Conflicting Rights Must be Resolved

- Perceived and real conflicts in access rights and privileges occur in the coastal zone including: equality (rights of one impinge on rights of another); over-exploitation; conservation and sustainability; legal vs. rights of custom; right to enjoy vs. right to exploit; government controls; lack of understanding and respect of rights and privileges; different values and attitudes; communal vs. individual rights for all sectors; and decision-making responsibility and authority.
- The inalienable nature of native navigation and fishing rights vs. rights of governments to license and permit fishing must be addressed.

RECOMMEND

Protecting Access Rights

- Recognize rights of access where these are statutorily provided for and ensure their protection.
- Establish standards for permanent rights of access to the coast in consultation with the public and include these public rights of access in policies and strategies.
- Define a framework for decision making and conflict resolution regarding access, based on principles of sustainable development. Governments should take the lead, in cooperation with other key stakeholders.
- Define access rights for exploitation purposes based on sustainability
- Improve dialogue, consultation and mediation in resolving resource use conflicts in the coastal zone.



Legislation, Regulations and Socio-Economic Instruments

The Conference Participants at Coastal Zone Canada '94 in Halifax in September, 1994...

BEING AWARE OF

Principle 11 of the Rio Declaration...“ *States shall enact effective environmental legislation. Environmental standards, management objectives and priorities should reflect the environmental and development context to which they apply...*” and

Principle 16 of the Rio Declaration...“*National authorities should endeavour to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment*” and

OECD Council Recommendation II on ICZM...“*Establishment and maintenance of monitoring and enforcement procedures for environmental objectives and targets*” and “*Application of regulations and economic instruments within the framework of the Polluter-Pays Principle, and pricing coastal resources to reflect social costs of use and depletion*” and

OECD Council Recommendation II on ICZM...“*Where appropriate , enactment of national legislation to enforce coastal zone management objectives*” and

The Lisbon Declaration...“*that local authorities should...provide for appropriate training and education in implementing regulations bearing in mind the need to create public awareness of the value and benefit to the health and welfare of local communities of such measures*” and “*introduce economic incentives to encourage conformity to local authority by-laws, such as so-called “tax holidays”, prizes, levying of charges for or local taxes on use of the marine environment for emissions, discharges, introduction and dumping in the marine environment*” and

The Lisbon Declaration...“*local authorities should ensure that the necessary legislation is adopted at local levels to control or prevent, reduce or eliminate all sources of marine pollution.*”

NOTING THAT

There is an Inextricable Link Between the Environment and the Economy

- Economic activity and the continued availability of natural resources rely on healthy ecosystem functions.

Greater Compliance with Regulatory Measures Must be Secured

- The lack of commitment to law enforcement in the coastal zone makes management difficult in some countries.
- Greater cooperation in regulatory compliance is required. Regulatory

enforcement is costly and the adversarial climate created is counter-productive.

Greater International Cooperation is Required

- Coastal nations need to develop complementary legislation for the management of their oceans and coastal resources.

Current Legislation May not be Effective in Achieving Sustainable Oceans Management

- Existing legislation is not evenly applied and appropriate legislation does not always exist.

RECOMMEND

More Effective Decision Making Tools are Required for an Ecosystem-Based Approach

- Move towards a more ecosystem-based approach to managing human activities in coastal and marine environments.
- Define new environmental and social indicators for evaluating ecosystem and community health and incorporate them into decision making.
- Adopt a systematic approach to sustainable development that protects both ecological and economic functions.
- Identify sustainable development success stories and use practical demonstrations.

Promoting Self Regulation and Improved Voluntary Compliance

- Improve communication among scientists, fishers, governments and communities to promote compliance with regulations.
- Monitor compliance and provide advisory services and incentives in support of self-regulation.

Develop Alternative Measures to Regulation

- Develop and apply non-regulatory mechanisms for controlling coastal developments (e.g., conservation covenants, easements, tax incentives, heritage coasts).

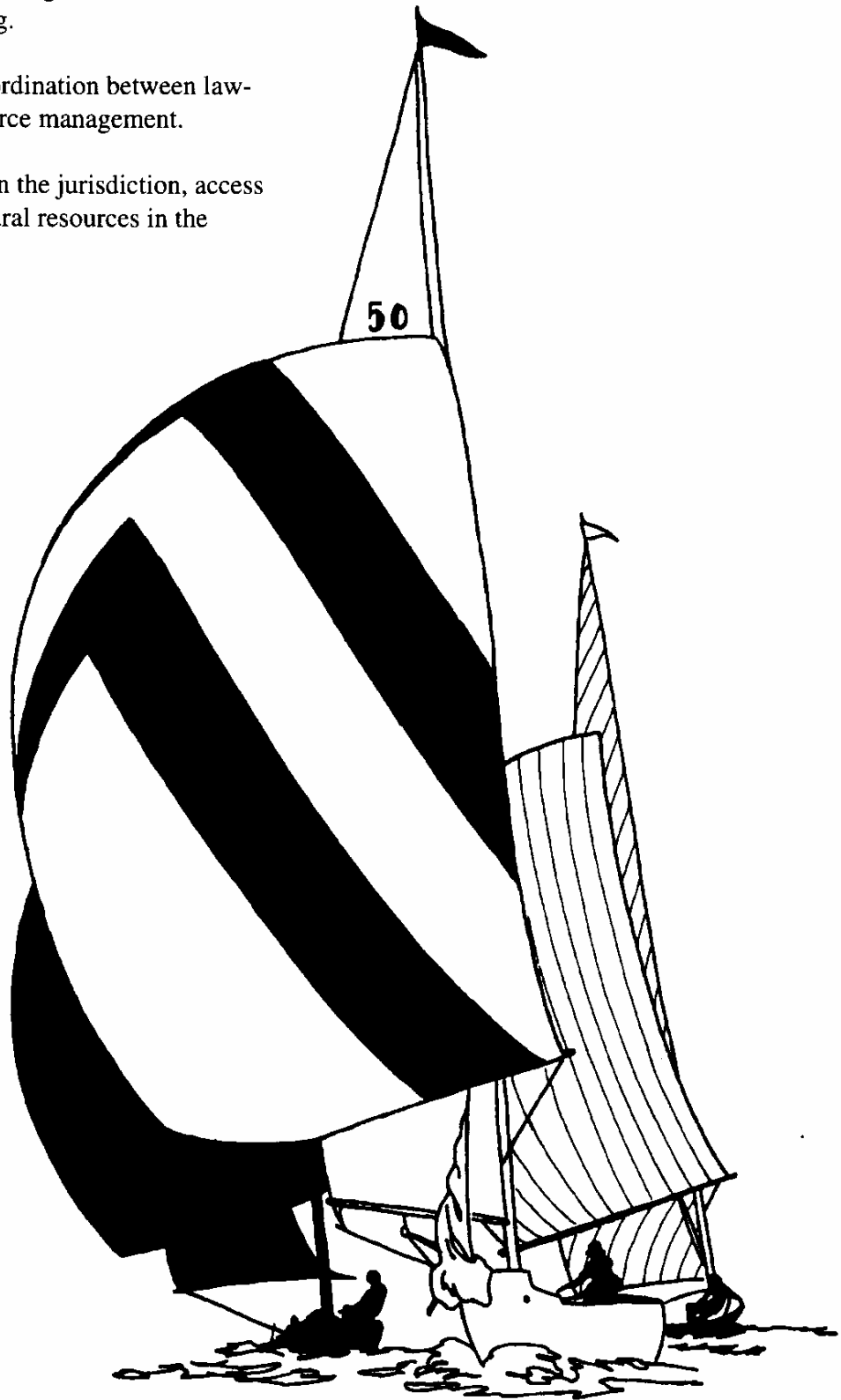
Achieving a More Equitable Distribution of Costs Associated with Integrated Coastal Zone Management

- Reduce reliance on subsidization and adopt the principle of user-pay.
- Balance private and public interests through an equitable distribution of costs (e.g., compensation).
- Adopt full-cost accounting and establish quality of life indicators.

The Development of Legislation for the Coastal Zone

- Adapt models of legislation, processes and standards, used in other jurisdictions, that might be suitable for local application.

- Enable stakeholder participation in program development, implementation and review through legislation and intervenor funding.
- Foster greater coordination between law-making and resource management.
- Ensure certainty in the jurisdiction, access and tenure of natural resources in the coastal zone.



Enhancing Political Will and Sustained Commitment to the Coastal Zone

The Conference Participants at Coastal Zone Canada '94 in Halifax in September, 1994...

BEING AWARE OF

OECD Council Recommendation VI on ICZM...*“that the Environment Policy Committee and other relevant committees review progress in the establishment of mechanisms for integrated coastal zone management within two years of enactment of this Recommendation, and that the Environment Policy Committee and other relevant committees further undertake a review of the effectiveness of actions taken in accordance with this Recommendation within five years of its enactment”*

NOTING THAT

Coastal and Oceans Management is a Long Term Business

- Getting states and communities to implement successful ecosystem management programs is challenging.

- Politics operates on a short-term basis, whereas integrated coastal zone management operates in the longer term.

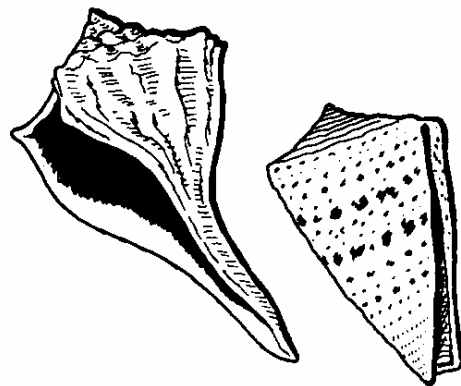
Champions of Coastal Zone Management are Required

- Getting ICZM onto the political agenda is imperative.
- Leaders both within and outside government are needed to champion ICZM.

RECOMMEND

Taking Specific Steps to Coalesce the Will To Act

- Educate, inform and create the will to develop and implement integrated resource management principles in the coastal zone.



- Strengthen political will by demonstrating how socio-economic and environmental objectives are being met successfully.
- Strengthen political will by demonstrating the potential capital asset values as opposed to the liquid asset values of coastal resources.
- Raise political awareness of the benefits of regional joint management initiatives in shared coastal and marine ecosystems (e.g., Gulf of Maine Council; UNEP Regional Seas Programme).

Stimulating Interest in Integrated Coastal Zone Management at the Community Level

- Increase awareness and understanding of ICZM issues within coastal communities through the use of quality information, education and marketing.
- Encourage and enable communities and other key stakeholder groups to place coastal zone issues high on the political agenda.
- Identify and encourage political, bureaucratic and community leaders who are capable of articulating the cause of integrated coastal zone management at the highest levels.

