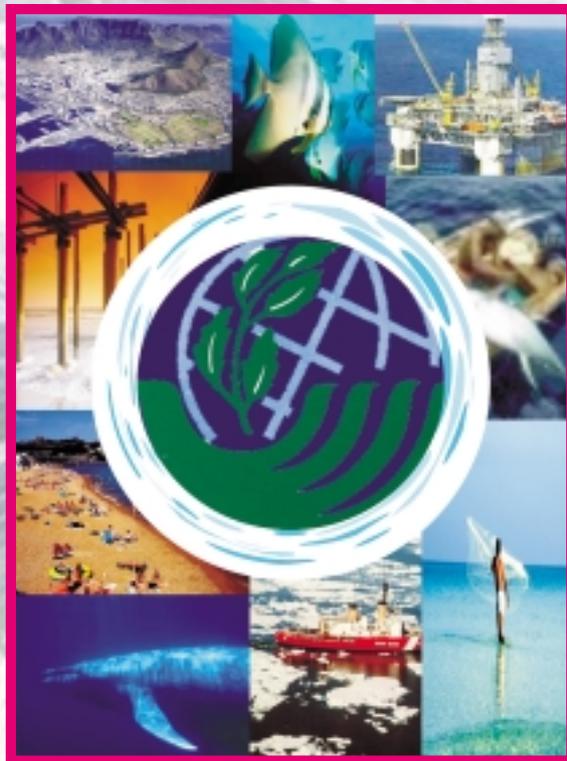




World Summit on Sustainable Development  
Johannesburg, South Africa  
August 26-September 4, 2002

# **A Guide to Oceans, Coasts and Islands at the World Summit on Sustainable Development**



***Integrated Management  
from Hilltops to Oceans***



Center for the  
Study of Marine Policy



Intergovernmental  
Oceanographic Commission



United Nations  
Environment Programme

# *Informal Coordinating Group on Oceans, Coasts, and Islands at the WSSD*

The Informal Coordinating Group on Oceans, Coasts, and Islands at the WSSD is an *informal* mechanism created in 2002 to achieve synergy among and effective implementation of WSSD actions related to oceans, coasts, and islands.

Members of the group serve in their individual, not institutional capacity.

Institutional affiliations are shown only for information purposes.

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## ***Integrated Management from Hilltops to Oceans***

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## FOREWORD

Oceans, coasts, and islands are essential to global sustainable development. The oceans, comprising 72% of the earth's surface, play an essential life-support function without which life on earth would not be possible. 50% of the world's population lives in coastal areas, and 44 of the world's nations are small island developing States (SIDS) which are especially dependent on the oceans. Human populations everywhere depend on the oceans for food, energy, transportation, tourism, and other uses.

Oceans, coasts, and islands thus do not represent a special or sectoral interest and concern—they are essential to global well-being. Achieving sustainable development in oceans, coasts, and islands thus would go a long way towards achieving global sustainable development.

We are pleased to present this *Guide to Oceans, Coasts, and Islands at the World Summit on Sustainable Development, in Johannesburg*. The Guide addresses the major topics noted below.

### *An overview of the ecological, economic, and social importance of oceans, coasts, and islands for global well-being*

This section calls attention to the fact that we are in a critical situation of declining trends in the well-being of oceans, coasts, and islands that requires immediate action by nations and governing bodies worldwide.

### *Review of the "Road to Johannesburg" for oceans, coasts, and islands*

In the initial WSSD preparatory process (PrepCom), oceans, coasts, and islands were not addressed specifically in the negotiating text. A number of global and regional meetings, however, underscored the problems and opportunities besetting oceans, coasts, and islands, their importance to global sustainability, and the imperative for action. An alliance of governments, intergovernmental organizations, and nongovernmental organizations effectively argued for the inclusion of a strong emphasis on oceans, coasts, and islands in the WSSD negotiating text

### *Main progress achieved and constraints faced since 1992*

The Guide reviews the main progress achieved and details constraints to development in oceans, coasts, and islands since the 1992 United Nations Conference on Environment and Development (UNCED)—the Earth Summit—held in Rio de Janeiro, Brazil. When considering the progress achieved in implementation of the oceans chapter of Agenda 21 (the action plan emanating from the Earth Summit) (Chapter 17), it is clear that there has been much progress since 1992. In particular, a number of important international agreements on oceans have been adopted and are in the early stages of implementation; there has been new investment by multilateral agencies and national donors in supporting coastal and marine programs; national and local governments in most countries have initiated efforts at integrated coastal management; and scientific knowledge, data, and information about oceans, coasts, and islands have been considerably enhanced.

A major lesson that has been learned in the decade since Rio is that the health of oceans and coasts is directly linked to watersheds. Eighty percent of marine pollution comes from land-based sources. In the developing world, more than 90% of sewage is dumped untreated into surface waters where they pollute water supplies, agricultural lands, and coastal waters. Thus, it is imperative to have integrated coastal and ocean management approaches that, as the subtitle to this publication notes, link "hilltops to oceans."

Notwithstanding the progress achieved since UNCED, and perhaps reflecting the lag time between efforts and positive impacts, the "on-the ground" condition of marine resources and of coastal communities shows alarming declining trends. Many coastal communities around the world remain in impoverished and unhealthy conditions, especially those in the coastal megacities of the developing world. Many marine resources are in peril—75% of fisheries worldwide require urgent management to freeze or reduce capacity; 70% of marine mammals are threatened; 58% of the world's coral reefs are at risk—to name a few of the major problems besetting oceans and coasts. These troubling trends invoke a sense of urgency for developing a detailed plan of action to reverse the decline in resources and to insure healthy marine ecosystems and prosperous coastal communities.

### *Review of the major outcomes of the WSSD on oceans, coasts, and islands*

There are two major types of outcomes emanating from the World Summit on Sustainable Development: 1) the negotiated text (Type I outcome) called the *Plan of Implementation of the World Summit on Sustainable Development*; and 2) partnership initiatives to strengthen the implementation of Agenda 21. A third outcome, a high-level political declaration, will also be emanating from the WSSD, and will be issued at the end of the Summit.

*The negotiated text (Type I outcome).* The Guide provides the verbatim text related to oceans, coasts, and islands in the negotiated document as of June 26, 2002. Some items (in brackets and in bold) are still to be negotiated and decided upon in Johannesburg. The provisions concerning oceans, seas, islands, and coastal areas (paragraphs 29-34) are addressed in section IV, Protecting and managing the natural resource base of economic and social development. This section focuses on six major areas of action: cross-sectoral aspects; fisheries; biodiversity; marine

pollution; and science and observation. Numerous actions are proposed for each area, some of which include a timeframe for action. Issues related to small island developing States are found in section VII, Sustainable development of small island developing States (paragraphs 52-55). This section also contains a number of specific actions and timetables.

*Type II initiatives.* The second outcome expected from the WSSD is represented by partnership initiatives to strengthen the implementation of Agenda 21. These partnerships consist of a series of commitments and action-oriented coalitions focused on deliverables and are intended to contribute to translating political commitments into action. While not negotiated as the Plan of Implementation for the further implementation of Agenda 21 has been, partnership initiatives are an integral part of the WSSD and represent one way of translating the negotiated commitments into action. Type II partnerships are new initiatives specifically conceived for the WSSD. The mechanisms governing the partnerships are established by the partners and must fulfil requirements in terms of targets, timetables, monitoring arrangements, coordination and implementation mechanisms, arrangements for predictable funding, and for technology transfer.

Numerous partnership initiatives on oceans, coasts and islands are currently being developed by the international community. A number of these have been formally reviewed by and registered with the WSSD Secretariat. The Guide contains a list of all the partnerships of which the editors were aware as of August 16, 2002, and, for the officially registered partnerships, a description and contact information. The geographical scope of partnership initiatives varies from global to regional to subregional, but is always characterized by an international dimension. In most cases, the initiatives are the result of broad partnerships, involving governmental agencies, nongovernmental organizations, and intergovernmental organizations.

#### *Oceans Events and Discussions at the WSSD*

This section of the Guide provides an overview and a day-by-day schedule of the major events related to oceans, coasts, and islands at the WSSD. A number of discussions will be held in Johannesburg on ways of achieving effective implementation of WSSD outcomes and of ways of achieving synergy among Type II initiatives.

A number of ocean exhibits and related events such as press briefings, book launches, Type II announcements, etc. will, in particular, be found in the H<sub>2</sub>O Pavilion of the WaterDome (described in the Guide).

On September 2, 2002, delegates and attendees at the WSSD will gather together in the WaterDome to take part in a high-level event highlighting "People, Oceans, and Stewardship." Hosted by representatives of the international oceans community, the event aims to bring good ocean stewardship and its importance to sustainable development into the limelight of the WSSD, and to build an oceans alliance with pledges for concrete action on the ground beyond the Summit. Government leaders, NGO representatives, and entertainers will come together to highlight the achievements of the WSSD on oceans, coasts and islands (the Type I outcome) and to announce the new Type II partnership initiatives for the sustainable development of marine areas..

#### *Beyond Johannesburg*

We look forward to seeing you in Johannesburg, and most importantly, after Johannesburg in the many fora that will assist in and monitor the implementation of actions taken at the WSSD. The discussions on oceans, coasts, and islands have consistently underscored that it is essential that we link economic development, social welfare, and resource conservation in order to achieve sustainability of oceans, coasts, and islands, reversing declining trends.

Accomplishing this will require the efforts of all parts of the global oceans community—the governments, intergovernmental and international organizations, nongovernmental organizations, industry—in an unprecedented new global oceans alliance.

To begin forging such an alliance, we have organized an informal coordinating group on oceans, coasts, and islands at the WSSD to achieve synergy among and effective implementation of WSSD actions related to oceans, coasts, and islands (see the inside cover of the report). We invite all major groups and organizations with an oceans focus to join in this endeavour.

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# 1. OCEANS, COASTS AND ISLANDS: TOWARDS SUSTAINABLE DEVELOPMENT

## 1.1 The Importance of Oceans, Coasts and Islands

Oceans, coasts and islands are an integral aspect of global sustainable development. The oceans—comprising 72 percent of the Earth's surface—are what link our far away continents together, they provide the essential life-support function without which life on earth would not be possible, they provide the cheapest form of transportation for our goods, they provide us with energy, food, recreation, and spiritual renovation. Oceans, coastal areas and islands present excellent opportunities for development if conducted in a sustainable manner.

An integrated approach to governance—managing from hilltops to oceans—is needed to take full advantage of the benefits that the marine environment offers—be they economic, social, recreational, or cultural.

Coastal areas are crucial to supporting life on our planet. They comprise 20 percent of the Earth's surface yet host a significant portion of the entire human population.

- About 50 percent of human population live within 200 km of the coast (UN 2002a).
- The average human population density in coastal areas is about 80 persons per square km, twice the global average (UNEP 2002a).
- More than 70 percent of the world's megacities (greater than 8 million inhabitants) are located in coastal areas (IOC 1999).

Coastal ecosystems are highly productive and diverse: they yield 90 percent of global fisheries and produce about 25 percent of global biological productivity and of 13,200 known species of marine fish, almost 80 percent are coastal. Yet coastal ecosystems are responsible for cleaning and chemically reprocessing the ever-increasing flow of artificial fertilizers and other side-products of modern economic activities.

There are 44 small island developing States (SIDS), which face special issues related to environment and development due to their small size, ecological vulnerability, limited resources, geographic dispersion, and isolation from markets. SIDS need support in the critical role they play in the sustainable development of the oceans. These nations, small in land area, typically have control and stewardship responsibilities over huge extents of ocean—their Exclusive Economic Zones—containing high biological diversity, rich fisheries, the most extensive coral reef systems in the world, and significant seabed minerals.

Oceans and coasts support a diverse array of activities yielding enormous economic and social benefits, e.g.:

- 90 percent of world trade tonnage is transported by ships (UN 2002a).
- 6,000 offshore oil and gas installations are in operation worldwide, contributing about 25 to 30 percent of the world's energy supply (UN 2002a).
- Marine capture fisheries and marine aquaculture together produce close to 100 million tons of fish, providing direct and indirect livelihood to about 140 million people (FAO 2001).
- Aquaculture accounts for 25 to 30 percent of all fish and shellfish production. It represents the fastest-growing food production activity, having grown 300 percent since 1984, with an annual growth rate of about 10 percent in the 1990s (WRI 2002).
- Tourism plays an important role in the economy of many coastal nations, especially for tropical, developing countries: tourism receipts represent 25 percent of total export earnings in the Pacific and over 35 percent for Caribbean islands and yet some 30 to 50 percent of this income leak back to operators from developed countries (UN 2002a after World Tourism Organization).
- The ocean hosts a wealth of underwater cultural resources, many of them still to be explored: over 3 million undiscovered shipwrecks are estimated to lie on the ocean floors (UNESCO 2001).

The multitude of activities supported in ocean and coastal areas is placing increasing pressure on the integrity of the coastal and marine ecosystems and many of the ocean and coastal resources are threatened through overexploitation. For example:

- The food security of societies heavily dependent on fishing is threatened by the state of fisheries: 47 percent of fish stocks are fully exploited and 28 percent are depleted, overexploited or recovering (FAO 2001).
- About 80 percent of marine pollution is due to land-based sources. In developing countries, more than 90 percent of wastewater and 70 percent of industrial wastes are discharged in coastal waters without any treatment (various sources).
- Human health faces problems due to the contamination of coastal waters: today, 250 million clinical cases of gastroenteritis and upper respiratory diseases are caused annually by bathing in contaminated waters (GESAMP 2001).
- Recurrent hypoxic conditions in coastal waters are reported for about 60 sites around the world, mainly in industrialized countries, on the Eastern and Caribbean coasts of the United States, the North Sea, the Baltic Sea, the Mediterranean, and around Japan (UNEP 2002b).

- Over the past two decades, the frequency of recorded harmful algal blooms resulting in mass mortality and morbidity of marine organisms has increased significantly (WRI 2001).
- 58 percent of the world's reefs are at risk from coastal development, marine pollution, overexploitation and land-based pollution, with about 27 percent of reefs at high or very high risk (Bryant et al. 1998).
- Of 126 species of marine mammals, 88 are listed on the IUCN Red List of Threatened Species (Marsh et al. 2001).
- It is estimated that overall 50 percent of the world's mangrove forests have been lost (WRI 2001).
- Important seagrass habitats, occupying over 600,000 km<sup>2</sup> are rapidly being destroyed; in South East Asian countries, 20 to 60 percent of seagrass beds have been lost (Fortes 2001).
- Trawling on the seafloor represents a major threat to the biodiversity of coastal ecosystems: it is estimated that the world's trawling grounds could total approximately 20 million km<sup>2</sup>, or nearly two and one-half times the size of Brazil (WRI 2002 after UNDP, UNEP, WB, and WRI).
- 12 billion tons of ballast water containing, at any one time, 3,000 marine species are shipped around the globe each year, spreading alien and invasive species (GESAMP 2001).
- The projections of the Intergovernmental Panel on Climate Change (IPCC) note that continued use of fossil fuels will exacerbate global climate changes with severe consequences for ocean and coastal ecosystems. Forty-six million people per year are currently at risk of flooding from storm surges and, without adaptation measures, a 1-m sea-level rise might displace tens of million people in Bangladesh. Small islands and deltaic areas are particularly vulnerable to sea level rise: a 1-m rise in sea level might eliminate entire islands nations (IPCC 2001).
- Food security for an increased human population drives the intensification of agricultural production and results in the increased application of fertilizers, pesticides, and herbicides. For example, synthetic fertilizer use is predicted to more than double globally between 1990 (74 million tons/year of Nitrogen) and 2050 (182 million tons/year) (Seitzinger and Kroeze 1998; Kroeze and Seitzinger 1998).
- Atmospheric deposition, associated with the combustion of fossil fuels, is predicted to almost double (22 to 39 million tons/year) to terrestrial systems over that same time period, as is nitrogen in human sewage (9 to 16 million tons/year of Nitrogen). As a result, inorganic nitrogen inputs to coastal ecosystems are predicted to double (from 21 to 42 million tons/year of Nitrogen) (Kroeze and Seitzinger 1998). The increased inputs of nitrogen to terrestrial and aquatic systems will undoubtedly lead to increased human health and environmental degradation, including degradation of coastal ecosystems.

## **1.2 The Road to Johannesburg**

The United Nations Conference on Environment and Development (UNCED), held in Rio de Janeiro in 1992, and the 1997 Special Session of the General Assembly reviewing the implementation of Agenda 21 urged national, regional, and international institutions to take action for the sustainable development of coastal and marine areas, and small island developing states.

At the conclusion of UNCED, three major international agreements incorporated the principles, objectives and actions needed to ensure the sustainable development and protection of oceans and coasts: the United Nations Convention on the Law of the Sea (UNCLOS); Agenda 21, in particular, Chapter 17, Protection of the Oceans, All Kinds of Seas, Including Enclosed and Semi-Enclosed Seas, and Coastal Areas for the Protection, Rational Use and Development of Their Living Resources; and The Rio Declaration on Environment and Development.

The Law of the Sea, comprising 320 articles and nine annexes, provides provisions for governing all aspects of ocean space, such as delimitation, environmental control, marine scientific research, economic and commercial activities, transfer of technology and the settlement of disputes relating to ocean matters. The convention entered into force in 1994 and as of 31 May 2002 had been ratified by 138 nations.

Global and regional agreements exist in support of the implementation of the different provisions of the Law of the Sea. The International Convention for the Prevention of Pollution from Ships (MARPOL 73/78) and the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Dumping Convention), for example, are the key agreements addressing marine pollution.

Complementary to the regime established by the convention, Chapter 17 of Agenda 21 address in a comprehensive way seven main programmatic areas: (a) Integrated management and sustainable development of coastal areas, including exclusive economic zones; (b) Marine environmental protection; (c) Sustainable use and conservation of marine living resources of the high seas; (d) Sustainable use and conservation of marine living resources under national jurisdiction; (e) Addressing critical uncertainties for the management of the marine environment and climate change; (f) Strengthening international, including regional, cooperation and coordination; and (g) Sustainable development of small islands.

Following UNCED 1992, progress has continued in building the legal and institutional framework for the sustainable development of oceans and coasts. New international agreements, such as the 1994 Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982, the 1995 United Nations Fish Stocks Agreement, the 1995 Global Programme of Action for

the Protection of the Marine Environment from Land-Based Activities (GPA), and the 1994 Jakarta Mandate of the Convention on Biological Diversity (CBD), as well as cooperative efforts such as the 1994 International Coral Reef Initiative (ICRI) have been concluded providing more detailed frameworks for addressing critical aspects of the sustainable management of the oceans, especially through better compliance and enforcement.

Established in 1999 by the General Assembly of the United Nations, the United Nations Open-ended Informal Consultative Process on Oceans (ICP) promotes an integrated approach to ocean issues, by considering sectoral and transsectoral issues and integrating political, legal, economic, social, environmental, scientific and technical aspects. ICP: (a) studies developments in ocean affairs consistent with the legal framework provided by UNCLOS and the goals of Chapter 17 of Agenda 21; (b) assesses them against the backdrop of overall developments of all relevant ocean issues, to identify particular issues to be considered by the General Assembly; and (c) emphasizes areas where coordination and cooperation at the intergovernmental and inter-agency levels is most needed.

In 2000, the world leaders gathered to approve the Millennium Declaration, which contains goals and targets for eight major areas: (1) eradicating extreme poverty and hunger, (2) achieving universal primary education, (3) promoting gender equality and empowering women, (4) reducing child mortality, (5) improving material health, (6) combating HIV/AIDS, malaria, and other diseases, (7) ensuring environmental sustainability, and (8) developing a global partnership for development. In spite of the many legal, programmatic, and scientific achievements of the last thirty years, the full potential of the ocean and its resources remain unaccomplished for large parts of the world. The contribution of oceans, coasts and islands, therefore, has to be seen in relation to the broader challenges societies have to overcome to achieve equitable and sustainable development in this millennium.

The importance of oceans and coasts for sustainable development has recently been reexamined by a series of global and regional intergovernmental and expert meetings leading up to Johannesburg.

The *Reykjavik Conference on Responsible Fisheries in the Marine Ecosystem (Reykjavik, 1-4 October 2001)* called for the adoption of the ecosystem approach in managing the world's fisheries.

The *Intergovernmental Review Meeting of the Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities (Montreal, 26-30 November 2001)* gave new impetus to the improvement of international coastal and oceans governance under ocean related conventions and provided a specific plan of action for the control of sewage and for new sources of financing.

The *Global Conference on Oceans and Coasts at Rio+10: Toward the 2002 World Summit on Sustainable Development, Johannesburg* highlighted among the main challenges in achieving the sustainable development of oceans, coasts, and islands: poverty reduction, compliance with and implementation of international agreements, integrated management of coastal areas and river basins, operationalization of the ecosystem approach, assessment of ocean uses, and consideration of the special case of small island developing states.

The *Bonn Freshwater Meeting (Bonn, 3-7 December 2001)* focused on strategies that will help manage fresh water supplies and better address the interconnections between coastal areas and adjacent water basins.

The *Regional Preparatory Committees (PrepComs) to the World Summit on Sustainable Development (WSSD)* highlighted the importance of marine and coastal resources to the development of regional economies and called for enhanced environmental protection. All the regional PrepComs held in preparation of the WSSD highlighted the importance of developing at the WSSD specific initiatives for addressing oceans and seas, coastal zones, and fresh water and sanitation. In this regard, integrated coastal management (ICM) was recognized as the appropriate approach to ensure comprehensive management of land and bodies of water, ecosystem-based marine resource management, and integrated water resource management.

After the work of the global and regional preparatory meetings, the WSSD presents a unique opportunity to agree upon a limited number of targets as universal benchmarks for a focused action-oriented program addressing the main issues and causes of marine degradation, based on renewed political and financial commitments at all levels. Integrated coastal, ocean, and river-basin management approaches can help to generate the necessary multi-disciplinary and cross-sectoral frameworks needed to develop coastal and ocean areas appropriately, enhancing the welfare of coastal communities, while maintaining ecological integrity and biodiversity.

### **1.3 Main Progress and Constraints towards Sustainable Development**

#### ***Implementing Chapter 17 of Agenda 21***

The Global Conference on Oceans and Coasts at Rio+10 provided a discussion of the progress in achieving the objectives of Chapter 17 of Agenda 21, progress that is reported for all seven program areas. Significant progress has been achieved over the past decade in promoting an integrated approach to coastal management. Both the precautionary approach and the ecosystem-based approach have been progressively incorporated into measures to achieve marine environmental protection. A great deal of progress has

been achieved in the area of responsible fisheries development and management as a result of UNCLOS and the adoption of a number of complementary international instruments and voluntary agreements. The past 10 years have seen a turning point in terms of understanding and measuring the role of the oceans in global climate change and in developing the observational tools needed to forecast change. International cooperation on the oceans has developed new modes of action and thinking, including the establishment of the United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea (ICP) in 2000 (UN 2001).

It is very clear that significant progress and institutional change have been achieved since the Rio Earth Summit (Cicin-Sain and Bernal 2001). This has been manifested in four major ways:

1. The adoption and implementation of a number of major ocean agreements;
2. New funding of initiatives in ocean and coastal management;
3. Many new actions by governments at national and local levels; and
4. Significant progress in the development of scientific knowledge, data, and information systems on oceans and coasts.

**International Agreements.** Following UNCED, a number of conventions, agreements, and programs of action have been negotiated, adopted, or entered into force to address different ocean and coastal issues (see Table 1). In addition, the precautionary approach and the polluter pays principle—endorsed at UNCED—are now widely recognized and used as key elements in the development of international environmental law in the protection of ocean and coasts. Regional approaches to ocean governance and coastal management have often been most effective in producing results. The Cartagena Convention in the Caribbean, the Arctic Council—a forum involving indigenous communities and the eight nations with territory in the Arctic—and the South Pacific Regional Environmental Program (SPREP) are good examples of regional bodies in which people collaborate effectively to protect human health, prevent, control and reduce pollution and ensure sound environmental management of oceans and coastal areas (West 2001).

**New Funding.** In the last decade, significant new funding for coastal and marine programs and activities has been provided by many multilateral and national donors, and financial institutions such as the World Bank, the Asian Development Bank, the Inter-American Development Bank, SIDA, CIDA, JICA, DANIDA, USAID, NORAD, among many others. In Latin America, for example, the investments by international donors in coastal management between 1992 and 2000 totaled approximately \$1.3 billion (Rivera-

Arriaga 2001). The World Bank strategy for coastal and marine areas has entailed investments of the order of \$500 million in Africa (Hewawasam 2001) and of \$175 million in lending operations in the Asia-Pacific region. The Asian Development Bank has invested \$1.2 billion for marine resources projects in the Asia-Pacific region (King 2001). The restructuring of international funding mechanisms led to the establishment of the Global Environment Facility (GEF) and related programs (GEF 2001):

- The International Waters initiative has funded 53 projects totaling \$438 million between 1991 and 2000, operationalizing an integrated approach to river basin and coastal/marine management.
- The Biodiversity Initiative has funded 58 projects totaling \$244 million through 2000 to protect coastal, marine, and freshwater ecosystems.
- The Climate Change initiative has funded many projects to assist small island developing nations in addressing impacts from climate change, totaling \$60 million as of 1999.

**National Efforts at Integrated Coastal Management.** Following UNCED, national and sub-national governments have undertaken many initiatives to protect and develop coastal and marine areas and to build capacity for integrated coastal and management. In 1993, there were 59 nations engaged in ICM initiatives at national and/or local levels (Sorensen 1993). In 2000, there were 98 nations engaged in ICM initiatives at national and/or local levels (Cicin-Sain et al. 2001). In terms of institutional changes, in 2000, a recent study noted that 46 percent of coastal countries have enacted coastal-related legislation, while 42 percent of countries report having some sort of coordinating mechanism for ocean and coastal management (Cicin-Sain et al. 2001). There are, however, significant regional differences in the way nations approach ICM; for example, regarding the distribution of authority and responsibility between national and subnational authorities, the influence of external donors, the number of demonstration or pilot projects, and the role of regional organizations in promoting ICM.

**Scientific Knowledge, Data, and Information Systems on Oceans and Coasts.** One of the major lessons learned since UNCED is that the transition towards sustainable development must be science-based and supported by the appropriate engineering and technology. The past 10 years have seen a turning point in terms of the understanding the role of the oceans in global climate change. With significant improvements of models and technology to monitor climate changes, the scientific community has been able to narrow the level of uncertainty on many ocean processes. The collection of previously unavailable information is now being organized and utilized

through a concerted interagency and intergovernmental effort to continuously monitor the major planetary processes. The building of the institutional framework for developing Earth System Science is well underway through, among other, the World Climate Research Project, the International Geosphere and Biosphere Programme and the International Human Dimensions Programme on Global Environmental Change.

Since 1998, the three UN-sponsored Global Observing Systems, the Global Ocean Observing System (GOOS), the Global Terrestrial Observing System (GTOS) and the Global Climate Observing System (GCOS) have been working together as part of a single Integrated Global Observing Strategy (IGOS), in partnership with national space agencies, for better observation of the atmosphere, oceans and land. Answering a call from Agenda 21, the Global Ocean Observing System (GOOS) is being developed by UNESCO/IOC together with the WMO and the International Council of Scientific Unions (ICSU). The Intergovernmental Panel on Climate Change (IPCC), jointly sponsored by UNEP and WMO has issued authoritative reports based on scientific assessments, summarizing evidence that most of the global warming observed over the last 50 years is attributable to human activities. Floods, drought and extremely high temperatures could threaten the life and livelihoods of millions of people living in low-lying coastal areas. Residents of small island developing States would be most at risk from warmer temperatures and rising sea levels, while the degradation of coastal habitats including coral reefs could accelerate.

### **Major Problems and Constraints Faced**

Despite the positive progress in the last decade in implementation of Chapter 17 of Agenda 21, problems and constraints still remain hindering the achievement of sustainable ocean and coastal development. These problems were summarized by a number of participants at the *Global Conference on Oceans and Coasts at Rio+10* and in working group reports. As noted earlier in section 1, the “on-the-ground” condition of coastal and ocean resources is one of the declining trends that are cause for significant concern and call for immediate action by nations and governing bodies worldwide. In addition, a number of other factors—related to the implementation of efforts at coastal and ocean management at international, regional, and national levels—prove problematic. These can be summarized as follows (Mabudafhasi 2001):

- Increased fragmentation and lack of coordination among international conventions and institutions;
- Complexity of the governance systems, emerging from this pattern of institutionalization, hindering the participation and ownership by developing countries;

- Shortcomings in the results of international conventions due to the lack of appropriate compliance and enforcement mechanisms;
- Development institutions under-funded and often ineffective;
- Donor funds not always aligned to developing country priorities; and
- Poor implementation of the international Agenda development targets.

The coordination and harmonization of international agreements has been made difficult by a series of factors. These include: (a) excess of zeal in the protection of the individual mandates inhibiting cooperation; (b) insufficient attention given to the need of harmonizing national reporting, which represents a heavy burden on many countries, especially small developing countries; (c) insufficient implementation and coordination of efforts at the national level; (d) lack of coherent national policies; (e) inadequate and inconsistent compliance and enforcement at the national level because of the absence of adequate financial resources, access to technical expertise, and appropriate legislation and institutional frameworks; (f) insufficient use of environmental and performance indicators to measure the effectiveness of the agreements; (g) the budgetary constraints of most secretariats of international agreements (UNEP 2001).

Donor funding has been constrained by: (a) lack of awareness, which translates into lack of political will; (b) ocean and coastal related agencies, being at an early stage of development, do not receive adequate financial or other resources; and (c) lack of ability to conceptualize and develop viable projects. While international support for integrated ocean and coastal management initiatives around the world has increased significantly, challenges have persisted at many different levels, posing obstacles to implementation. These challenges include problems of governance, single-issue orientation and limitations in scope and financing. While UNCED emphasized the interconnection of environment and development issues, the focus of donor aid is often tied to a single issue, whether biodiversity, vulnerability to climate change, or addressing coastal erosion. Typically, there are many such “single issue” projects funded by multiple donors in the same national context that are characterized by the scarcity of domestic resources, and results in few connections among the projects. The challenge is to create synergy among such projects by establishing clear incentives built into the funding process so that they are woven into a comprehensive integrated coastal and ocean management effort (Rio+10 Conference, Working Group n. 2, 2002).

Over-fishing and over-capacity—exacerbated by technological progress—remain a problem worsened by illegal, unregulated and unreported (IUU) fishing, poor gear selectivity, and discarding both on the high seas

Table 1. Development of Post-UNCED Agreements Related to Oceans, Coasts, and Islands

Theme	Agreement	Date	
Law of the Sea	United Nations Convention on the Law of the Sea (UNCLOS)	1994 (entry into force)	
	International Seabed Authority (ISBA)	1996 (operational)	
	International Tribunal on the Law of the Sea (ITLOS)	1997 (operational)	
	Commission on the Limits of the Continental Shelf (CLCS)	1997 (operational)	
	Marine environment	Code for the Safe Carriage of Packaged Irradiated Nuclear Fuel Plutonium and High-Level Radioactive Wastes on Board Ships	1993
		Convention on the Protection of the Black Sea against Pollution	1994
		Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA)	1995
		Agreement establishing the South Pacific Environment Programme (SPREP)	1995 (into force)
		International Convention on Oil Pollution Preparedness and Response	1995 (into force)
		Protocol to the London Convention	1996
		Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region	1996 (into force)
		Declaration on the Establishment of the Arctic Council	1996
		Annex VI to MARPOL 73/78 on Regulations for the Prevention on Air Pollution from Ships	1997
		Convention for the Protection of the Marine Environment of the North East Atlantic	1998 (into force)
	OSPAR and Helsinki Convention	1998 (into force)	
Marine environment Protocol on Environmental Protection to the Antarctic Treaty	1998 (into force)		
New timetable for Annex I to MARPOL 73/78 (Oil Discharges) for phasing out single hull oil tankers	1998 (into force)		
International Convention on the Control of Harmful Antifouling Systems on Ships	2001		
Stockholm Convention on Persistent Organic Pollutants (POPs)	2001		
Marine safety	International Convention on Liability and liability Compensation for Damage in connection with the Carriage of Hazardous and Noxious Substances by Sea	1996	
	Liability Protocol to the Basel Convention	1999	
	International Convention on Civil Liability for Bunker Oil Pollution Damage	2001	
	Agreement to Promote Compliance with International Conservation and Management Measures by Vessels Fishing in the High Seas ( Compliance Agreement )	1993	
	New regional fisheries management organizations established or in preparation(Helsinki Convention, Commission for the Conservation of the Southern Blue Tuna CCSBT, South East Atlantic Fisheries Organization SEAFO, West and Central Pacific Organization, Convention for the Conservation and Management of Pollock Resources in the Central Bering Sea)	After 1993	
	Code of Conduct for Responsible Fishing and four related International Plans of Action (IPOAs)	1995	
	Agreement on of the Provisions of the United Nations Convention on the Law of the Sea Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks ( Fish Stocks Agreement )	2001 (entry into force)	
	Jakarta Mandate on the Conservation and Sustainable Use of Marine and Coastal Biological Diversity	1995	
	International Coral Reef Initiative (ICRI)	1995	
	Annex VI to OSPAR Convention	1996	
	Protocol on Specially Protected Areas and Biological Diversity in the Mediterranean	1996	
	Cartagena Protocol on Biosafety	2000	
	Barbados Programme of Action for the Sustainable Development of Small Island Developing States	1994	
	Agreement Relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982	1994	
	Regulations on prospecting and exploration for polymetallic nodules in the international seabed area	2000	
Convention for the Protection of the Underwater Cultural Heritage (UNESCO)	2001		
ECE Convention on Transboundary Lakes and Rivers	1992		
UN Convention on the Non-navigational Uses of International Watercourses	1997		

Source: Cicin-Sain et al. 2002

and within Exclusive Economic Zones (EEZs). The problem is sometimes compounded by the low capacity of some developing countries to effectively control the fishing operations of long-range fleets operating under access agreements, and by the lack of measures to prevent the reflagging of vessels to avoid rules of regional fishery management organizations (RFMOs) (Rio+10 Conference, Working Group n. 6, 2002).

In terms of marine and coastal protected areas, while the oceans comprise over 70 percent of the earth's surface, less than 1 percent of the marine environment is within protected areas, compared with nearly 9 percent of the land surface. Management of these areas is mixed, since many marine protected areas are only "paper parks" (Rio+10 Conference, Working Group n. 4, 2002).

Despite substantial efforts in education and training, insufficient local capacity remains a major barrier to meaningful implementation of ocean and coastal management programs. More emphasis is needed on building a critical mass of practitioners and other key stakeholders and providing them with the enabling conditions and continued support they need to develop and implement programs.

Many capacity building programs also seem to have concentrated mainly on technical and scientific material rather than on a broader coverage taking into account policy aspects, decision making methods, institutional capacity building and the formation of true partnerships between groups. In addition, capacity programs have generally not specifically targeted under-represented groups such as women and youth. The still high "failure" rate of sustaining coastal and

marine projects after donor support ends, the apparent "added-on" nature of many training programs, the heavy reliance on outside expertise in coastal management projects in developing countries and the continued use of non-local examples in training programs suggests that meaningful capacity-building remains an urgent and essential action item for achieving sustainable development in coastal regions (Rio+10 Conference, Working Group n. 7, 2002).

In addition to the persistent challenges posed by global and regional ocean governance, new issues are emerging, and others are evolving that will need to be addressed. Emerging issues can be identified in five main clusters: (a) Population-related and societal issues such as management of coastal megacities and consideration of gender and indigenous people issues; (b) environment-related issues, such as expanding pathways for emergent diseases and invasive species which may affect marine species, human health, and the environment; (c) issues related to trade and to marine industry-related issues, such as addressing conflicts between world trade and sustainable development of marine resources; impacts of tourism on marine environments; decommissioning of offshore platforms; megaships and expansion of ports, and recycling of ships; (d) issues linked with new uses of the sea such as the exploration of the genetic resources of the deep seabed, the protection of underwater cultural heritage, the expansion of offshore aquaculture, and marine eco-tourism; and (e) issues associated with security and peace, as well as with combating piracy and other crimes at sea such as drug trafficking and the smuggling of migrants (Rio+10 Conference, Working Group n. 1, 2002).

## 2. OCEANS, COASTS, AND ISLANDS AT THE WSSD

### 2.1 Introduction

Oceans, coasts and islands hold a prominent position in the outcomes expected to be agreed upon at the WSSD, i.e. in: (1) *the negotiated Plan of Implementation for the World Summit on Sustainable Development* and (2) *the partnership initiatives to strengthen the implementation of Agenda 21*. In this section we first provide an overview of outcomes on oceans, coasts, and islands at the WSSD, and then present the Type I negotiated text verbatim and abbreviated information on Type II partnership initiatives.

#### ***The Draft Plan of Implementation for the WSSD***

In the Draft Plan of Implementation (as of June 12, 2002), the provisions concerning oceans, seas, islands and coastal areas (paragraphs 29–34) are addressed in section IV, *Protecting and managing the natural resource base of economic and social development*, while small island developing States (SIDS) occupy section VII, *Sustainable development of small island developing States* (paragraphs 52–55).

Paragraphs 29–34 of the Draft Plan of Implementation focus on six main areas of action: (a) cross-sectoral aspects, (b) fisheries, (c) biodiversity, (d) marine pollution, (e) maritime transportation, and (f) science and observation. Numerous actions are proposed for each area, some of which include a timeframe for action. Paragraphs 52–55 highlight the special case of SIDS for both environment and development and address issues related to energy, health, and the implementation of the Barbados Programme of Action. A summary of actions and timeframes is shown in **Table 2** later in this section.

#### ***The Type II Partnership Initiatives***

The second outcome expected from the WSSD is represented by partnership initiatives to strengthen the implementation of Agenda 21. These partnerships consist of a series of commitments and action-oriented coalitions focused on deliverables and are intended to contribute in translating political commitments into action. While not negotiated as the high-level political declaration and the Plan of Implementation for the further implementation of Agenda 21, partnership initiatives are an integral part of the WSSD. The partnerships are the expression of the interest of stakeholders in pursuing objectives and actions complementary to those negotiated by governments. In this perspective,

they are a means to translate the negotiated commitments into action. As a principle, Type II partnerships are new initiatives specifically conceived for the WSSD. The mechanisms governing the partnerships are established by the partners and must fulfil requirements in terms of targets, timetables, monitoring arrangements, coordination and implementation mechanisms, arrangements for predictable funding and technology transfer.

Numerous partnership initiatives on oceans, coasts and islands are currently being developed by the international community and some of them have been formally registered with the WSSD Secretariat. This booklet contains a list of all the partnerships of which the editors were aware as of August 15, 2002, and, for the officially registered partnerships, a description and contact information. The geographical scope of partnership initiatives varies from global to regional to subregional, but is always characterized by an international dimension. In most cases, the initiatives are the result of broad partnerships, involving governmental agencies, nongovernmental organizations, and inter-governmental organizations.

The Type II partnership initiatives listed address a large array of issues, such as diagnostic assessments and management measures for the integrated management of coastal and river basin areas; measures to address illegal, unregulated and unreported fishing; the conservation of biodiversity in the high seas; the creation of maritime safety systems for the prevention of marine pollution; measures to reduce the transfer of harmful aquatic organisms and pathogens in ships' ballast water; collaboration and coordination among the major scientific oceanographic institutions; harmonization of ocean-related initiatives by island states; and networking among coastal management practitioners and academics.

While focusing on coastal and marine issues, many of these partnerships present potential linkages with initiatives in other sectors. This potential appears high particularly in relation to the conservation of biodiversity, the integrated management of water resources, the building of capacity, and the development of information for decision-making. A particular case is constituted by the initiatives for Africa as a contribution to poverty reduction. **Table 3.a** and **Table 3.b** (found later in this section) provide a summary of the sectoral issues and cross-sectoral aspects addressed by the formalized partnership initiatives.

## 2.2 The Negotiated Text (Type I Outcome)

This section presents the verbatim text related to oceans, coasts, and islands in the negotiated document as of June 26, 2002. The reader should note that items in brackets and in bold are still to be negotiated and decided upon in Johannesburg. Table 2 at the end of this section summarizes the major actions and timeframes in the negotiated text.

### **World Summit on Sustainable Development**

Johannesburg, South Africa, 26 August-4 September 2002

### **Draft Plan of Implementation of the World Summit on Sustainable Development**

Document A/CONF.199/L.1 (UN 2002b)

26 June 2002

#### ***Paragraphs 29-34 extracted from section IV. Protecting and managing the natural resource base of economic and social development***

29. [Agreed] Oceans, seas, islands and coastal areas form an integrated and essential component of the Earth's ecosystem and are critical for global food security and for sustaining economic prosperity and the well-being of many national economies, particularly in developing countries. Ensuring the sustainable development of the oceans requires effective coordination and cooperation, including at the global and regional levels, between relevant bodies, and actions at all levels to:

(a) **[Invite States to] [Ratify or accede to and fully]** implement the United Nations Convention on the Law of the Sea, which provides the overall legal framework for ocean activities;

(b) [Agreed] Promote the implementation of chapter 17 of Agenda 21 which provides the programme of action for achieving the sustainable development of oceans, coastal areas and seas through its programme areas of integrated management and sustainable development of coastal areas, including exclusive economic zones; marine environmental protection; sustainable use and conservation of marine living resources; addressing critical uncertainties for the management of the marine environment and climate change; strengthening international, including regional, cooperation and coordination; and sustainable development of small islands;

(c) [Agreed] Establish an effective, transparent and regular inter-agency coordination mechanism on ocean and coastal issues within the United Nations system;

(d) [Agreed] Encourage the application by 2010 of the ecosystem approach, noting the Reykjavik Declaration on Responsible Fisheries in the Marine Ecosystem and decision 5/6 of the Conference of Parties to the Convention on Biological Diversity;

(e) [Agreed] Promote integrated, multidisciplinary and multisectoral coastal and ocean management at the national level, and encourage and assist coastal States in developing ocean policies and mechanisms on integrated coastal management;

(f) [Agreed] Strengthen regional cooperation and coordination between the relevant regional organizations and programmes, the UNEP regional seas programmes, regional fisheries management organizations and other regional science, health and development organizations;

(g) [Agreed] Assist developing countries in coordinating policies and programmes at the regional and subregional levels aimed at the conservation and sustainable management of fishery resources, and implement integrated coastal area management plans, including through the promotion of sustainable coastal and small-scale fishing activities and, where appropriate, the development of related infrastructure;

(h) [Agreed] Take note of the work of the open-ended informal consultative process established by the United Nations General Assembly in its resolution 54/33 in order to facilitate the annual review by the Assembly of developments in ocean affairs and the upcoming review of its effectiveness and utility to be held at its fiftyseventh session under the terms of the above-mentioned resolution;

30. To achieve **[equitable and]** sustainable fisheries, the following actions are required at all levels:

## The Negotiated Text (Type I Outcome)

(a) Maintain or restore stocks to levels that can produce the maximum sustainable yield with the aim of achieving these goals for depleted stocks **[by 2015][on an urgent basis]**;

(b) [Agreed] Ratify or accede to and effectively implement the relevant United Nations and, where appropriate, associated regional fisheries agreements or arrangements, noting in particular 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 and the 1993 Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas;

(c) [Agreed] Implement the 1995 Code of Conduct for Responsible Fisheries, taking note of the special requirements of developing countries as noted in its article 5, and the relevant Food and Agriculture Organization of the United Nations (FAO) international plans of action and technical guidelines;

(d) [Agreed] Urgently develop and implement national and, where appropriate, regional plans of action, to put into effect the FAO international plans of action, in particular the international plan of action for the management of fishing capacity by 2005 and the international plan of action to prevent, deter and eliminate illegal, unreported and unregulated fishing by 2004. Establish effective monitoring, reporting and enforcement, and control of fishing vessels, including by flag States, to further the international plan of action to prevent, deter and eliminate illegal, unreported and unregulated fishing;

(e) Encourage relevant regional fisheries management organizations and arrangements to give due consideration to **[the rights of]** developing coastal States when addressing the issue of the allocation of share of fishery resources for straddling stocks and highly migratory fish stocks, mindful of the provisions of the United Nations Convention on the Law of the Sea and 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, on the high seas and within exclusive economic zones;

(f) [Agreed] Eliminate subsidies that contribute to illegal, unreported and unregulated fishing and to over-capacity, while completing the efforts undertaken at WTO to clarify and improve its disciplines on fisheries subsidies, taking into account the importance of this sector to developing countries;

(g) [Agreed] Strengthen donor coordination and partnerships between international financial institutions, bilateral agencies and other relevant stakeholders to enable developing countries, in particular the least developed countries and small island developing States and countries with economies in transition, to develop their national, regional and subregional capacities for infrastructure and integrated management and the sustainable use of fisheries;

(h) [Agreed] Support the sustainable development of aquaculture, including small-scale aquaculture, given its growing importance for food security and economic development.

31. [Agreed] In accordance with chapter 17 of Agenda 21, promote the conservation and management of the oceans through actions at all levels, giving due regard to the relevant international instruments to:

(a) [Agreed] Maintain the productivity and biodiversity of important and vulnerable marine and coastal areas, including in areas within and beyond national jurisdiction;

(b) [Agreed] Implement the work programme arising from the Jakarta Mandate on the Conservation and Sustainable Use of Marine and Coastal Biological Diversity of the Convention on Biological Diversity, including through the urgent mobilization of financial resources and technological assistance and the development of human and institutional capacity, particularly in developing countries;

(c) [Agreed] Develop and facilitate the use of diverse approaches and tools, including the ecosystem approach, the elimination of destructive fishing practices, the establishment of marine protected areas consistent with international law and based on scientific information, including representative networks, by 2012, and time/area clo-

## The Negotiated Text (Type I Outcome)

asures for the protection of nursery grounds and periods, proper coastal land use; and watershed planning and the integration of marine and coastal areas management into key sectors;

(d) [Agreed] Develop national, regional and international programmes for halting the loss of marine biodiversity, including in coral reefs and wetlands;

(e) [Agreed] Implement the RAMSAR Convention, including its joint work programme with the Convention on Biological Diversity, and the programme of action called for by the International Coral Reef Initiative to strengthen joint management plans and international networking for wetland ecosystems in coastal zones, including coral reefs, mangroves, seaweed beds and tidal mud flats;

32. [Agreed] Advance implementation of the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities and the Montreal Declaration on the Protection of the Marine Environment from Land-based Activities, with particular emphasis in the period 2002-2006 on municipal wastewater, the physical alteration and destruction of habitats, and nutrients, by actions at all levels to:

(a) [Agreed] Facilitate partnerships, scientific research and diffusion of technical knowledge; mobilize domestic, regional and international resources; and promote human and institutional capacity-building, paying particular attention to the needs of developing countries;

(b) [Agreed] Strengthen the capacity of developing countries in the development of their national and regional programmes and mechanisms to mainstream the objectives of the Global Programme of Action and to manage the risks and impacts of ocean pollution;

(c) [Agreed] Elaborate regional programmes of action and improve the links with strategic plans for the sustainable development of coastal and marine resources, noting in particular areas which are subject to accelerated environmental changes and development pressures;

(d) [Agreed] Make every effort to achieve substantial progress by the next Global Programme of Action conference in 2006 to protect the marine environment from land-based activities.

33. [Agreed] Enhance maritime safety and protection of the marine environment from pollution by actions at all levels to:

(a) Invite States to ratify or accede to and implement the conventions and protocols and other relevant instruments of the International Maritime Organization (IMO) relating to the enhancement of maritime safety and protection of the marine environment from marine pollution and environmental damage caused by ships, including the use of toxic anti-fouling paints **[and urge IMO to consider stronger mechanisms to secure implementation of IMO instruments by flag States];**

(b) [Agreed] Accelerate the development of measures to address invasive alien species in ballast water. Urge IMO to finalize the IMO International Convention on the Control and Management of Ships' Ballast Water and Sediments.

33.bis [Agreed] Governments, taking into account their national circumstances, are encouraged, recalling paragraph 8 of resolution GC (44)/RES/17 of the General Conference of the International Atomic Energy Agency (IAEA) and taking into account the very serious potential for environment and human health impacts of radioactive wastes, to make efforts to examine and further improve measures and internationally agreed regulations regarding safety, while stressing the importance of having effective liability mechanisms in place, relevant to international maritime transportation and other transboundary movement of radioactive material, radioactive waste and spent fuel, including, inter alia, arrangements for prior notification and consultations done in accordance with relevant international instruments.

34. [Agreed] Improve the scientific understanding and assessment of marine and coastal ecosystems as a fundamental basis for sound decision-making, through actions at all levels to:

(a) [Agreed] Increase scientific and technical collaboration, including integrated assessment at the global and regional levels, including the appropriate transfer of marine science and marine technologies and techniques for the conservation and management of living and non-living marine resources and expanding ocean-observing capabil-

## The Negotiated Text (Type I Outcome)

ities for the timely prediction and assessment of the state of marine environment;

(b) [Agreed] Establish by 2004 a regular process under the United Nations for global reporting and assessment of the state of the marine environment, including socio-economic aspects, both current and foreseeable, building on existing regional assessments;

(c) [Agreed] Build capacity in marine science, information and management, through, inter alia, promoting the use of environmental impact assessments and environmental evaluation and reporting techniques, for projects or activities that are potentially harmful to the coastal and marine environments and their living and nonliving resources;

(d) [Agreed] Strengthen the ability of the Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organization, FAO and other relevant international and regional and subregional organizations to build national and local capacity in marine science and the sustainable management of oceans and their resources.



### **Paragraphs 52-55 from section VII. Sustainable development of small island developing States**

52. [Agreed] Small island developing States are a special case both for environment and development. Although they continue to take the lead in the path towards sustainable development in their countries, they are increasingly constrained by the interplay of adverse factors clearly underlined in Agenda 21, the Programme of Action for the Sustainable Development of Small Island Developing States and the decisions adopted at the twenty-second special session of the General Assembly. This would include actions at all levels to:

(a) [Agreed] Accelerate national and regional implementation of the Programme of Action, with adequate financial resources, including through GEF focal areas, transfer of environmentally sound technologies and assistance for capacity-building from the international community;

(b) [Agreed] Further implement sustainable fisheries management and improve financial returns from fisheries by supporting and strengthening relevant regional fisheries management organizations, as appropriate, such as the recently established Caribbean Regional Fisheries Mechanism and such agreements as the Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean;

(c) Assist small island developing States, including through the elaboration of specific initiatives **[in defining and]** managing in a sustainable manner their coastal areas and exclusive economic zones and, where appropriate, the **[extended]** continental shelf areas, as well as relevant regional management initiatives **[within the context of the United Nations Convention on the Law of the Sea]** and the UNEP regional seas programmes;

(d) [Agreed] Provide support, including for capacity-building, for the development and further implementation of:

(i) [Agreed] Small island developing States-specific components within programmes of work on marine and coastal biological diversity;

(ii) [Agreed] Freshwater programmes for small island developing States, including through the GEF focal areas;

(e) Effectively reduce, prevent and control waste and pollution and their health-related impacts by undertaking **[by 2004]** initiatives aimed at implementing the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities in small island developing States;

(f) [Agreed] Work to ensure that, in the ongoing negotiations and elaboration of the WTO work programme on trade in small economies, due account is taken of small island developing States, which have severe structural handicaps in integrating into the global economy, within the context of the Doha development agenda;

(g) [Agreed] Develop community-based initiatives on sustainable tourism by 2004, and build the capacities necessary to diversify tourism products, while protecting culture and traditions, and effectively conserving and managing natural resources;

## The Negotiated Text (Type I Outcome)

(h) [Agreed] Extend assistance to small island developing States in support of local communities and appropriate national and regional organizations of small island developing States for comprehensive hazard and risk management, disaster prevention, mitigation and preparedness, and help relieve the consequences of disasters, extreme weather events and other emergencies;

(i) [Agreed] Support the finalization and subsequent early operationalization, on agreed terms, of economic, social and environmental vulnerability indices and related indicators as tools for the achievement of the sustainable development of the small island developing States;

(j) [Agreed] Assist small island developing States in mobilizing adequate resources and partnerships for their adaptation needs relating to the adverse effects of climate change, sea level rise and climate variability, consistent with commitments under the United Nations Framework Convention on Climate Changes, where applicable;

(k) [Agreed] Support efforts by small island developing States to build capacities and institutional arrangements to implement intellectual property regimes;

53. [Agreed] Support the availability of adequate, affordable and environmentally sound energy services for the sustainable development of small island developing States by, inter alia:

(a) [Agreed] Strengthening ongoing and supporting new efforts on energy supply and services, by 2004, including through the United Nations system and partnership initiatives;

(b) Developing and promoting efficient use of **[all]/[local]** sources of energy, including indigenous sources and renewable energy, and building the capacities of small island developing States for training, technical know-how and strengthening national institutions in the area of energy management;

54. [Agreed] Provide support to SIDS to develop capacity and strengthen:

(a) [Agreed] Health-care services for promoting equitable access to health care;

(b) [Agreed] Health systems for making available necessary drugs and technology in a sustainable and affordable manner to fight and control

communicable and non-communicable diseases, in particular HIV/AIDS, tuberculosis, diabetes, malaria and dengue fever;

(c) [Agreed] Efforts to reduce and manage waste and pollution and building capacity for maintaining and managing systems to deliver water and sanitation services, in both rural and urban areas;

(d) [Agreed] Efforts to implement initiatives aimed at poverty eradication, which have been outlined in section II of the present document.

55. [Agreed] Undertake a full and comprehensive review of the implementation of the Barbados Programme of Action for the Sustainable Development of Small Island Developing States in 2004, in accordance with the provisions set forth in General Assembly resolution S-22/2, and in this context requests the General Assembly at its fifty-seventh session to consider convening an international meeting for the sustainable development of small island developing States.

**Table 2. Summary of Actions and Timeframes in the Negotiated Text**

Area	Actions	Timeframe	Paragraph
Cross-sectoral aspects	Oceans, seas, islands and coastal areas: integrated and essential component of earth's ecosystem and their role for global food security and for sustaining economic prosperity and well-being [Ratify and accede to and] Implement the Law of the Sea Promote the implementation of Chapter 17 of Agenda 21 Establish a UN inter-agency coordination mechanism on ocean and coastal issues Encourage the application of the ecosystem approach Promote integrated coastal and ocean management at the national level Strengthen regional cooperation Assist developing countries in fisheries and ICAM Take note of the UNICPO process	2010	29 29(a) 29(b) 29(c) 29(d) 29(e) 29(f) 29(g) 29(h)
Fisheries	To achieve [equitable] and sustainable fisheries Maintain or restore fish stocks to levels that can produce MSY Ratify, accede to, implement UN and regional agreements – 1995 Fish Stocks Agreement – 1993 Compliance Agreement Implement 1995 Code of Conduct Implement FAO International Plans of Action (IPOAs) – Management of fishery capacity – IUU Fishing Regional fishery organizations to give consideration to developing countries when allocating shares of fishery resources of straddling stocks and highly migratory stocks Eliminate subsidies that contribute to IUU fishing and overcapacity Strengthen donor coordination and cooperation and partnerships Support sustainable aquaculture	[2015]     2005 2004	30 30(a) 30(b)  30(c) 30(d)  30(e) 30(f) 30(g) 30(h)
Biodiversity and ecosystem functions	Promote conservation and management of the oceans Maintain productivity and biodiversity of coastal areas Implement the Jakarta Mandate Develop and facilitate diverse approaches and tools – Ecosystem approach – Elimination of destructive fishing practices – MPA networks – Time/area closures for nursery grounds – Proper coastal land use – Watershed planning – Integration of marine and coastal area management into key sectors Develop programs for halting the loss of biodiversity (coral reefs and wetlands) Implement the Ramsar Convention	2012	31 31(a) 31(b) 31(c)      31(d) 31(e)
Marine pollution	Advance the implementation of the Global Programme of Action (GPA) especially – Municipal wastewater – Physical alteration and destruction of habitats – Nutrients Facilitate partnerships Strengthen capacity of developing countries Elaborate regional programs of action Achieve progress by next GPA conference	2002-2006      2006	32    32(a) 32(b) 32(c)
Maritime transportation	Enhance maritime safety and protection of the marine environment Ratify, accede to and implement IMO instruments – Maritime safety – Protection of the marine environment		33 33(a)

**Table 2. Summary of Actions and Timeframes in the Negotiated Text, continued**

Area	Actions	Timeframe	Paragraph
	<ul style="list-style-type: none"> <li>– Anti-fouling paints</li> <li>– [Consider stronger mechanisms for implementation by flag States]</li> </ul> <p>Accelerate the development of measures to address invasive species in ballast waters</p> <p>Take into account the potential impacts of radioactive wastes on the environment and human health and examine and improve measures and regulations regarding safety, while stressing the importance of liability mechanisms relevant to the transboundary movement of radioactive wastes</p>		<p>33(a)</p> <p>33(b)</p> <p>33.bis</p>
Science	<p>Improve scientific understanding and assessment of the marine environment</p> <p>Increase scientific and technical collaboration in marine science</p> <p>Establish a process for global assessment and reporting under the UN</p> <p>Build capacity in marine science, information and management</p> <ul style="list-style-type: none"> <li>– EIAs and environmental reporting</li> </ul> <p>Strengthen IOC and FAO</p>	2004	<p>34</p> <p>34(a)</p> <p>34(b)</p> <p>34(c)</p> <p>34(d)</p>
SIDS	<p>SIDS are a special case both for environment and development</p> <p>Accelerate implementation of the Barbados Programme of Action</p> <p>Further implement sustainable fishery management</p> <p>Assist SIDS in managing their coastal areas and EEZs as well as regional management initiatives</p> <p>Support and build capacity in SIDS to implement programs of work on marine and coastal biodiversity and fresh water programs</p> <p>Reduce pollution and their health-related impacts by implementing the GPA</p> <p>Take account of SIDS in WTO work on small economies</p> <p>Develop community-based initiatives on sustainable tourism</p> <p>Extend assistance to SIDS for hazard and risk management, disaster prevention, mitigation and preparedness</p> <p>Support the finalization and operationalization of vulnerability indices</p> <p>Assist SIDS in adapting to the effects of climate change</p> <p>Support SIDS to implement intellectual property regimes</p> <p>Support adequate, affordable and environmentally sound energy services for SIDS</p> <p>Strengthening and supporting new efforts on energy supply</p> <p>Developing and promoting efficient use of sources of energy</p> <p>Provide support to SIDS in the health sector</p> <p>Support health care services</p> <p>Support health systems for making available drugs and technology necessary fight communicable and non-communicable diseases</p> <p>Support efforts to reduce and manage waste and pollution</p> <p>Support initiatives aimed at poverty eradication</p> <p>Undertake and full and comprehensive review of the Barbados Programme of Action</p>	<p>[2004]</p> <p>2004</p> <p>2004</p> <p>2004</p>	<p>52</p> <p>52(a)</p> <p>52(b)</p> <p>52(c)</p> <p>52(d)</p> <p>52(e)</p> <p>52(f)</p> <p>52(g)</p> <p>52(h)</p> <p>52(i)</p> <p>52(j)</p> <p>52(k)</p> <p>53</p> <p>53(a)</p> <p>53(b)</p> <p>54</p> <p>54(a)</p> <p>54(b)</p> <p>54(c)</p> <p>54(d)</p> <p>55</p>

## 2.3 The Partnership Initiatives (Type II Outcomes)

In this section, we provide brief summary information for Type II initiatives registered with the WSSD Secretariat as of August 16, 2002). We then provide a list of other initiatives under development.

### **Initiatives formally Registered with the WSSD Secretariat**

(from: [http://www.johannesburgsummit.org/html/sustainable\\_dev/type2\\_part.html](http://www.johannesburgsummit.org/html/sustainable_dev/type2_part.html))

#### **The Pacific Islands Ocean Initiative**

The *Pacific Islands Ocean Initiative*, scheduled for initiation in 2003 and completion in 2007, is led by the Council of Regional Organizations in the Pacific (CROP), and encompasses Pacific Islands and territories, regional indigenous intergovernmental organizations, the private sector, civil society, environmental non-governmental organizations, and donor partners. The partnership is intended to assist with the implementation of the Pacific Islands Regional Ocean Policy, to harmonize and build upon ongoing ocean-related programs implemented within the region, and to identify and implement coordinated programs of action. The Policy will assist the region in addressing all existing international ocean-related commitments of Pacific Island States and territories, including the Law of the Sea, the Barbados Programme of Action, the Montreal Plan of Action for the GPA, the Jakarta Mandate and Cartagena Protocol of the Convention on Biological Diversity, and other similar agreements. The Pacific Islands Ocean Initiative will be implemented through a series of consultative meetings and facilitated by the Marine Sector Working Group of CROP.

Website:

[http://www.spc.int/mrd/asides/other\\_orgs/SPOC-CMSG/msg.htm](http://www.spc.int/mrd/asides/other_orgs/SPOC-CMSG/msg.htm)

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#### **International Coral Reef Action Network (ICRAN)**

The International Coral Reef Action Network, established in 1999, aims to halt and reverse the decline in health of the world's coral reefs. This global partnership includes governments of coral range and donor States, UNEP and other intergovernmental organizations, and non-governmental organizations, with major support from the United Nations Foundation. Action in the field is implemented through the Regional Seas programmes in the world's major coral reef regions. ICRAN seeks to put financial mechanisms

in place that support the translation of both traditional and scientific understand of coral reef dynamics into direct on-the-ground results that benefit both people and reefs. Building on the WSSD, ICRAN hopes to expand to regions not presently covered, including South Asia, the Red Sea and Gulf of Aden, and the Gulf region, and to extend its partnerships, including to the private sector and the tourism industry. The partnership organizes training in coral reef management on a regional basis, with public information support provided through the International Coral Reef Information Network.

Website:

<http://www.icran.org> and

<http://www.unep.ch/coral.html>

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#### **White Water to Blue Water: A Crosscutting Approach to Regional Oceans and Coastal Ecosystem Management**

The *White Water to Blue Water* Partnership will commence in 2003 with a regional stakeholders conference hosted by the United States to promote improved management of marine resources of the coastal zone in the Wider Caribbean region. The Partnership includes governments in the Wider Caribbean and Europe as well as international and non-governmental organizations and the private sector. The Partnership emphasizes a cross-sectoral approach to marine resources beginning with the upstream watershed, the inland forests, agricultural areas and population centers the sources of approximately 90 percent of marine pollution and extending through the wetlands, mangrove swamps and coral reefs. Issues to be addressed by stakeholders include fisheries, coral reefs, marine science, sewage treatment, sustainable agricultural practices, ship-borne pollution and oil spills and sustainable tourism. Follow-on programs will seek to

increase capacity in the public and private sector to manage marine resources as an ecosystem as well as to improve regional and cross-border coordination among stakeholders to make the best use of available resources. The Partnership is being planned in coordination with UNEP's Caribbean Environment Program.

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**The H<sub>2</sub>O (Hilltops-2-Oceans) Partnership:  
Working Together to Protect Coastal and Marine  
Environments**

The *H<sub>2</sub>O Hilltops-2-Oceans Partnership*, to be implemented from 2003 to 2006, aims to promote the environmental, economic and social importance of oceans, coasts, and islands, and to facilitate the realization of the Montreal commitment by governments to mitigate water pollution and resource degradation from the hilltops to the oceans. The partnership, led by the United Nations Environment Programme Global Programme of Action (UNEP-GPA), includes the Intergovernmental Oceanographic Commission of UNESCO, the World Health Organization, and a number of non-governmental organizations. The partnership goals are to facilitate recognition by governments and the international community of the basic linkages between freshwater and marine environments, assist countries and regions in making better use of existing resources and determining new and alternative sources of funding, and provide assistance in developing partnerships and involving the private sector. To attain these goals, the partnership specifies a timeline for achieving endorsement and implementation on international agreements related to fresh and marine water management. The H<sub>2</sub>O Partnership will be coordinated by the UNEP-GPA office with the input of a steering committee composed of representatives from the partner organizations. This partnership directly addresses the Millennium Declaration goal of ceasing the unsustainable exploitation of water resources, while building on past progress in implementing Integrated Coastal Area and River Basin Management initiatives.

*Website:*

<http://www.gpa.unep.org>

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**International Network of Practitioners and  
Academics to Support Implementation of Coastal  
and Ocean Management Programs**

The *International Network of Practitioners and Academics to Support Implementation of Coastal and Ocean Management Programs*—supported by an international partnership comprising government agencies, intergovernmental organizations, and regional networks of coastal managers and academics—aims to provide a technical support network for integrated coastal management (ICM), promoting interaction between practitioners and academics and identifying best practices and model ICM program efforts. In particular, the initiative aims to strengthen the role of practitioners at the subnational level (typically charged with the implementation of coastal and ocean programs), providing a platform for communication, information sharing, and exchange of experiences among existing regional networks of coastal management entities and academic institutions. The initiative will create opportunities for exchange, collaboration, and training among faculty and practitioners, with a view to supporting stronger linkages between multidisciplinary science, education, policy, and management.

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**Marine Electronic Highway (MEH) in the Straits  
of Malacca and Singapore**

The *Marine Electronic Highway (MEH) in the Straits of Malacca and Singapore* aims to create and maintain a network of marine information and infrastructure system for enhanced maritime services, improving navigational safety and promoting integrated management of the coastal and marine areas of the Straits. The MEH is an innovative system that integrates environmental management systems with maritime safety technologies by utilizing a network of electronic navigational charts in conjunction with Electronic Chart Display and Information System, Differential Global Positioning System, Automatic Identification System and other maritime technologies. The International Maritime Organization is the lead agency of this initiative in partnership with the governments of Indonesia, Malaysia and Singapore, GEF, World Bank, IHO, INTERTANKO, PEMSEA and other stakeholders. This type II initiative, referred to as the MEH Demonstration Project, will cover parts of the Straits and to commence on 2003 and completion is targeted

for 2007. The follow-up to this initiative will be the MEH Full-scale Development Project and will cover the entire Straits.

Website:

<http://www.imo.org/HOME/html> and PEMSEA website <http://www.pemsea.org>

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### **Initiative to Lessen Marine Pollution in Indonesian Waters**

The *Initiative to Lessen Marine Pollution in Indonesian Waters*, initiated in 2002, involves the Indonesia Department of Transportation as the lead partner, with support from the International Maritime Organization, indigenous people, NGOs, the private sector, and the research and scientific community. The partnership focuses on the creation of a maritime safety system for the prevention of marine pollution, along with the protection of marine resources in Indonesian seas.

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### **Global Ballast Water Management Project**

The *GloBallast Advanced* project aims to build regional partnership towards effective implementation of global regulations on ballast water management and control including development and implementation of integrated invasive marine species strategies and action plans at the regional and national levels. This initiative is designed to build on the regional approach established by the initial phase of the Global Ballast Water Management Programme, which will be completed in March 2004. The International Convention for the Control and Management of Ships' Ballast Water and Sediments is expected to be adopted by late 2003. Thus, the *GloBallast* initiative will be critical in ensuring the rapid and effective implementation of the new Convention in developing countries. It is envis-

aged that *GloBallast Advanced* will constitute a cooperative initiative of the GEF, UNDP, IMO, other UN agencies such as UNEP, IOC, WHO and FAO, international environmental NGOs, international shipping industry, various regional organizations, allied GEF projects and IMO member countries. This initiative will commence in 2004 and will be completed by 2009.

Website:

<http://globallast.imo.org>

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### **Comprehensive Environmental Assessment for the Asian Coastal Zone (CEACoz)**

The *Comprehensive Environmental Assessment for the Asian Coastal Zone (CEACoz)* is being conducted by the International Center for the Environmental Management of Enclosed Coastal Seas (EMECS) as the lead partner, nations in the Asia-Pacific Region, and academic partners. The Assessment is being initiated in 2002 and is scheduled for completion in 2005. The partnership objectives include the identification of major trends in environmental changes in the Asian coastal zone, the establishment of a scientific knowledge base for policy formulation and decision-making, and the promotion of dialog on coastal zone management. The partners will produce a database on the state of the environment and related social activities in the Asian coastal zone; a comprehensive environmental assessment report including the state of the environment, analysis of trends, future directions, and suggest policy responses; and a mechanism of dialog among all stakeholders on Asian coastal zone management.

Website:

<http://www.emecs.or.jp>

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### **A21 Adriatic Sea Forum—Local Agenda 21 for Adriatic Sea Region**

The *A21 Adriatic Sea Forum*, initiated in 2002 and scheduled for completion in 2005, is an initiative toward the implementation of Agenda 21 on a local scale in the Adriatic Sea Region. The Forum of Adriatic and Ionian Cities and Towns is a voluntary network of 43 cities located in the Adriatic and Ionian sea basin, led by the City of Ancona. The Forum will encourage and manage the implementation of Agenda 21 through a participative process meant to encourage socio-economic development, sustainable approaches to resource and ecosystem management, and cooperation of all stakeholders. The A21 Adriatic Sea Forum, composed by stakeholders from administrative, economic, social and cultural sectors of the cities and communities involved, will constitute thematic and/or subregional groups to examine and define targets and the capacity necessary for implementation of programs in all sectors of the local communities.

Website:

<http://www.adriatic.ionian.net>

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### **Initiative for Intelligent Use and Management of the Oceans**

The *Initiative for Intelligent Use and Management of the Oceans* partnership, initiated in 2002 and scheduled for completion in 2012, aims to promote intelligent and sustainable use and management of the oceans. The Partnership for Observation of the Global Oceans (POGO) is the lead partner for the Initiative, with support from the Intergovernmental Oceanographic Commission of UNESCO and potential collaboration with the Scientific Committee on Oceanic Research. The initiative focuses on the promotion of collaboration and coordination among major scientific oceanographic institutions, building of capacity where needed, and advocacy for the sound use and management of oceans through the provision of fellowship and exchange programs for ocean observations and training opportunities for oceanographers, specifically targeting Southern Hemisphere and Indian Ocean countries.

Website:

<http://www.oceanpartners.org>

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A dhow at Mafia Island, Tanzania, in the largest marine park in East Africa.

## Focus on Africa: Type II Initiative on Coastal and Marine Management in Sub-Saharan Africa

### African Process for the Development and Protection of the Marine and Coastal Environment in Sub-Saharan Africa



The African Process for the Development and Protection of the Marine and Coastal Environment in sub-Saharan Africa is an innovative undertaking launched with the support of over thirty African governments at the Cape Town Conference in 1998, which has garnered a significant degree of high-level political support at the global, regional and national levels. Implemented initially through a GEF Medium Sized Project in which eleven sub-Saharan countries currently participate, it focused on identifying the main causes of degradation of marine and coastal ecosystems through a root-cause analysis that has identified priority areas for intervention. On the basis of 11 national reports, an integrated Portfolio of nineteen framework Project Proposals, with over 140 national sub-projects, was developed to address identified priorities, taking into account transboundary considerations, in five key thematic areas: coastal erosion, management of key ecosystems and habitats, pollution, tourism, and sustainable use of living resources. This Portfolio is submitted for approval at the Partnership Conference held at the level of Heads of State during WSSD. All technical work was carried out by national teams in each country, thus ensuring the application of local expertise and information, and national ownership of the projects. The GEF-MSP is being developed by UNEP as implementing agency, ACOPS as executing agency, and IOC of UNESCO and the GPA Coordination Office as partner institutions.

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### Threats to the Coastal and Marine Environment in Sub-Saharan Africa

Social change and ecosystem degradation are affecting coastal and marine areas around the world, not least in Sub-Saharan Africa.

- *Urbanization and Population Growth.* Sub-Saharan Africa has the world's highest urban population growth rate, more than 5 percent (UN 1995). Rapid population growth along with improperly planned and managed industrial and urban development in many coastal and marine areas in Sub-Saharan Africa is causing formidable environmental stress and displacement of traditional livelihoods. West Africa is furthest along the urban transition with almost 40 percent of the population living in rapidly expanding coastal cities such as Lagos, Accra, Abidjan, and Dakar. The area between Accra and the Niger Delta is likely to become a continuous urban megalopolis, with more than 50 million people inhabiting 500 kilometers of coastline. Although densities are not as high on the East coast, populations are expanding at a rapid rate and urban centers such as Mombasa and Dar es Salaam, have high annual growth rates of 4 percent or more.
- *Pollution.* Aggressive industrial growth strategies are promoted in many African coastal nations and expanding urbanization has increased pollution to alarming levels, seriously threatening coastal and marine ecosystems. African coastal areas are locations for intensive industrial and agricultural activities ranging from textiles, leather and food and beverage processing industries to coastal and offshore mineral and natural gas exploitation. Associated pollution from these industries together with increasing container ship traffic, pose significant threats to the health of the coastal ecosystems.
- *Fisheries and Biodiversity Degradation.* Growing immigration and the incidence of poverty combined with increased fishing effort, the introduction of modern fishing fleets, and the use of more efficient processing technologies pose threats to the long-term sustainability of fisheries in the Sub-Saharan African region. The FAO estimates that fish catches in East Africa have declined to about 40 percent of 1990 levels and continuing trends will result in unemployment of 50 percent of fishers over the next 2 decades.
- *Global issues.* Global warming and the associated sea level rise could have significant implications for communities and establishments along the shoreline. Most capitals, major towns, and industrial centers—and all ports—are situated at sea level and are vulnerable to the impacts of sea level rise. Coastal communities in low-lying areas are increasingly susceptible to natural hazards such as floods. Climate change models predict that the occurrence of El Niño-like cyclones, with the associated warming and degradation of coral reefs, will occur more frequently.

### **New Approaches Needed**

Awareness is growing of the need for strategic management options such as integrated coastal management (ICM), which take into consideration the interrelated environmental issues in the region and the underlying socioeconomic and political factors. A wave of recommendations and initiatives have arisen from recent conferences and agreements to address the issues faced by coastal and marine areas in Sub-Saharan Africa. Although South Africa is the only coastal nation in the region to have an all-encompassing ICM policy framework, several other countries are launching efforts to protect coastal and marine areas. Pilot programs supported by the donor community are providing inputs for national coastal policy framework development in Mozambique, Tanzania, and Ghana. In addition to these established programs, new initiatives are in various stages of development in many countries including Namibia, Benin, Eritrea, Guinea-Bissau, Senegal, the Seychelles, and Nigeria, which is just embarking on the development of a national ICM plan.



*The fish market of Dar es Salaam, Tanzania.*

### **Progress towards the Millennium Development Goals**

Although the need for ICM as an organizing framework for addressing the population and development pressures impinging on the coastal margins of Sub-Saharan Africa is obvious, many of the poorer nations of the region may find themselves unable to afford the luxury of long-term planning horizons and lacking the resources to invest in enabling activities that take a long time to bear fruit. Achieving an integrated approach—both horizontally, in terms of economic and sectoral integration, and vertically, in terms of resource management and governance arrangements—is a long-term proposition. The benefits of ICM are unlikely to be felt in the near term. ICM programs may therefore not be adopted in a holistic sense in countries where political and social pressures for development are too strong and capacity and commitment to carry out strategic planning is weak or nonexistent. In such countries, ICM programs that are introduced through external donor support are unlikely to be sustained in the absence of strong links to more immediate economic and social welfare programs that have a high national priority. Small pilot efforts that address local priorities are not likely to be replicated at the scale and rate required to make significant headway on the sustainable development front unless supported by massive commitments of external assistance.

To confront this reality on the ground, donor support for ICM needs to be more strategic in design and packaged as a value-added increment to more traditional economic investments. In addition to investments within fisheries or environment programs, opportunistic approaches will have to be adopted, targeting large-scale investments in the water, infrastructure, energy, and transport sectors with the aim of making such investments more “coastal friendly” by averting downstream impacts, taking into account the nonmarket or future-option values of coastal ecosystems as providers of valuable services that depend on clean and reliable flows and bringing about more explicit benefits to coastal populations and ecosystems.

To achieve the necessary scale and impact, ICM initiatives will also require more explicit synergies with the poverty reduction strategies of specific countries and with the Millennium Development Goals set by the United Nations. ICM targets will need to be linked to quality of life, quality of growth, and environmental sustainability—objectives identified in the Millennium Development Goals. The gains to be reaped through ICM approaches will need to be presented in terms of national development priorities and designed to meet targets that support these priorities.

Ecosystems and ecological processes span political and geographic boundaries, and many governments, as well as development partners, are recognizing the need for environmental management at the subregional rather than the national or local level. The droughts and floods that afflicted Mozambique, South Africa, and Zimbabwe in 2000/2001 are examples of how national leaders have recognized the need for cooperation in managing ecosystems and natural resources. Leading institutions concerned with ecosystem preservation have concluded that conservation in the 21<sup>st</sup> century must be driven by a common vision, using subregional approaches and forming networks of protected areas. Such regional approaches will provide a mechanism for involving both countries that are not yet ready for ICM planning and those that have demonstrated readiness and commitment within an integrated, planning framework that reaches beyond political boundaries to encompass a larger geographic scale (Hewawasam 2002).



*In Lagos, Nigeria, 65 percent of the estimated 13.4 million population live in poverty.*

Tables 3.a and 3.b provide a summary of the sectoral issues and cross-sectoral aspects addressed by the formalized the Type II partnership initiatives.

Table 3.a Type II partnership initiatives: Relevance to oceans, coasts and islands

Coverage	Initiative	Protecting and managing the resource base of economic and social development Oceans/coastal areas/fisheries						SIDS
		ICM	Fisheries	Biodiversity	Pollution	Transport	Science	
Global	IMO GloBallast			X		X		
Global	ICRAN			X				X
Global	POGO-IOC						X	
Global	H <sub>2</sub> O	X		X	X		X	X
Global	ICM Networks	X						
Africa	African process	X	X	X	X		X	X
Pacific	CROP		X	X	X			X
Caribbean	White-Blue Water	X		X				X
Asia	EMECS	X					X	
Asia	Indonesian waters			X	X	X		
Asia	IMO MEH					X		
Mediterranean	Adriatic 21	X						

NOTE: ICM = integrated coastal management

Table 3.b Type II partnership initiatives: Linkages with other clusters and sub-clusters

Coverage	Initiative	Poverty eradication	Sustainable development initiatives for Africa	Means for implementation				
				Trade	Transfer of technology	Science and education	Capacity-building	Information for decision-making
Global	IMO GloBallast						X	
Global	ICRAN	X						
Global	POGO-IOC						X	X
Global	H <sub>2</sub> O	X	X		X	X	X	X
Global	ICM Networks					X		X
Africa	African process	X	X					
Pacific	CROP							
Caribbean	White-Blue Water					X	X	
Asia	EMECS					X	X	X
Asia	Indonesian waters							
Asia	IMO MEH						X	X
Mediterranean	Adriatic 21			X	X		X	X

NOTE: This categorization comes from the WSSD Secretariat, which has organized the partnership initiatives according to their linkages with clusters and sub-clusters, according to the clusters used in the Chairmans paper, document A/CONF.199/PC/L.1 (see: [http://www.johannesburgsummit.org/html/sustainable\\_dev/partnership\\_initiatives.html](http://www.johannesburgsummit.org/html/sustainable_dev/partnership_initiatives.html))

The H<sub>2</sub>O initiative also has linkages with freshwater, subcluster of the cluster on Protecting and managing the resource base.

## Other Initiatives Under Development

These initiatives are arranged in the alphabetical order of the lead partner's name. Partners in other relevant initiatives not noted here are kindly requested to send information on their initiatives to Stefano Belfiore (email: sbelf@udel.edu), to be included in a subsequent printing of this booklet.

### Abidjan and OSPAR Conventions

*Abidjan and OSPAR Conventions: Partnership for the Better Implementation of the Two Conventions for the Protection of the Eastern Atlantic*

Contact: [secretariat@ospar.org](mailto:secretariat@ospar.org),  
[pglittoral@africaonline.co.ci](mailto:pglittoral@africaonline.co.ci)

### Australia

*High Seas Biodiversity Conservation Workshop (April 2003)*

*Global Ocean Data Assimilation Experiment*

Website: <http://www.bom.gov.au/GODAE>

*Workshop on the Effective Implementation of Existing Measures to Combat IUU fishing*

*APEC Coral Reef and Fisheries Network (led by Australia and Thailand)*

*Capacity building for Pacific Island Countries in oceans policy implementation (related to the Pacific Oceans Initiative 2003-2007)*

*Conservation of internationally important migratory bird habitats in East Asia and Australasia*

*Arafura-Timor Seas Forum*

### East African Community

*Promotion of Sustainable Development in the Lake Victoria Basin. A partnership between the East African Community (Kenya, Tanzania, Uganda) and the governments of Sweden, France and Norway, the World Bank and the East African Development Bank. Open to new partners*

Contacts: Dr. K. Cheluget, Deputy Secretary General of the EAC, PO Box 1096, Arusha, Tanzania and Mr. Lars Ekengren, Director SIDA, Stockholm, Sweden.

### European Foundation for the Environment (EFE)

*Blue Flag Campaign in Europe*

Website: <http://www.blueflag.org/>

### Indonesia

*Advisory assistance for capacity building in fisheries and marine sector*

*Construction of infrastructure of civil marine surveillance centers*

*Provision of patrol vessels*

*Advisory assistance for the implementation of code of conduct for responsible fisheries*

*The establishment of land based and coastal pollution control*

*Training of coast guards*

*Marine turtle habitat rehabilitation and conservation in Indonesia*

*Regional development for beach, coastal and small island area*

*Marine fish stock assessment in Indonesia*

*South East Asia Centre for Oceanic Research and Monitoring (SEACOM)*

Contact: Ministry of Marine Affairs and Fisheries

### **International Atomic Energy Agency (IAEA)**

*Marine Environment, Water Resources and Industry*

### **International Maritime Organization (IMO)**

*Regional Programme on Building Partnerships for Environmental Management in the Seas of East Asia*

Website: <http://www.pemsea.org>

*Implementation of Public-Private Partnerships for Environment Investments*

*Intergovernmental, Interagency and Intersectoral Partnerships in the Implementation of the Sustainable Strategy for the Seas of East Asia*

Contact: Koji Sekimizu ([ksekimizu@imo.org](mailto:ksekimizu@imo.org))  
James Paw ([jpaw@imo.org](mailto:jpaw@imo.org))

### **United Nations Development Programme, Global Environment Facility (UNDP/GEF)**

*Environmental Protection and Sustainable Management of the Okavango River Basin*

Website: <http://www.namibianet.com/okacom/>

*Train-Sea-Coast Programme: A Cooperative Training Program in the Field of Coastal and Ocean Management*

Website: <http://www.un.org/Depts/los/TSC/TSCindex.htm>

*International Waters: LEARN*

Website: <http://www.iwlearn.org>

*Black Sea Environment Programme*

Website: <http://www.blacksea-environment.org>

*Caspian Environment Programme*

Website: [www.caspianenvironment.org](http://www.caspianenvironment.org)

*Environment Programme for the Danube River Basin*

Website: <http://www.rec.org/DanubePCU>

*Sustainable Development Strategy for the Seas of East Asia*

Website: <http://www.pemsea.org>

*Gulf of Guinea*

Website: <http://www.africaonline.co.ci/AfricaOnline/societes/goglme/goglme.html>

## **The World Bank: In Support to Type 2 Partnership Initiatives on Oceans, Coasts, and Islands**

The World Bank currently has a portfolio of 183 coastal and marine management initiatives under implementation with another 40 in the pipeline. Many of these are stand alone projects involving GEF support, while others are components of traditional lending projects in water, infrastructure and rural development. In the current pipeline, several are directly supportive of Type II Partnership Initiatives formally registered with the WSSD secretariat. Among these are the following two initiatives.

**Evaluating Outcomes of World Bank Projects in Integrated Coastal and Marine Management (ICMM) and Distilling Good Practice from Case Studies in the Mediterranean, Sub-Saharan Africa and East Asia Regions**

The purpose of the proposed research is to assess the impact of the World Bank's investments thus far in ICM, and to document and disseminate lessons learned for enhancing the success of future efforts, based on technical, political, governance, and financial factors. The study is designed to critically assess the Bank's and other donors' experience in three key regions and, through 15 case studies, to go beyond an evaluation of outputs, to assess outcomes and impacts, with a view to distill and disseminate good practices for donors, coastal managers, and the communities who depend on the multiple goods and services that coastal ecosystems provide.

Contact:

Marea Hatzios ([mhatziolos@worldbank.org](mailto:mhatziolos@worldbank.org))  
Sarunas Zableckis ([SZableckis@worldbank.org](mailto:SZableckis@worldbank.org))  
Environment Department, The World Bank

**Targeted Research on the Impacts of Localized Stress and Climate Change on the Sustainability of Coral Reefs and the Implications for Management**

This project, now under preparation with GEF funds, proposes to conduct targeted, management-oriented research to fill critically important information gaps in our fundamental understanding of the determinants of coral reef ecosystem resilience or vulnerability under different forms of stress. The purpose of the targeted research is to test specific hypotheses related to major human and natural factors threatening coral reef sustainability and to build capacity to manage these ecosystems in-country to enhance reef resilience and recovery. The project is envisioned as a 15 year program, to be implemented in three, five-year phases. It involves six core-working groups on major research themes and a Synthesis Panel to coordinate and steer activities. The working groups consist of developing and developed country scientists and managers.

Contact:

Marea Hatzios ([Mhatziolos@worldbank.org](mailto:Mhatziolos@worldbank.org))  
Andy Hooten ([Ahooten@worldbank.org](mailto:Ahooten@worldbank.org))

*For a full list of World Bank projects in Integrated Coastal and Marine Management, please refer to the World Bank's ICMM website: <http://www.worldbank.org/icm>*

*Lake Tanganyika*

Website: <http://www.ltbp.org>

*Nile Basin Initiative*

Website: <http://www.nilebasin.org/>

*Planning and Management of Heavily Contaminated Bays and Coastal Areas in the Wider Caribbean*

Website: [http://www.nrca.org/kingston\\_harbour/PLAN/main.htm](http://www.nrca.org/kingston_harbour/PLAN/main.htm)

*Red Sea & Gulf of Aden*

Website: <http://www.unep.ch/seas/main/persga/red.html>

*TumenNET - A strategic action program to protect trans-boundary biodiversity and international water resources in Northeast Asia and to attract green investment*

Website: <http://www.tumennet.org>

*Sabonet*

Website: <http://www.sabonet.org>

*Benguela Current Large Marine Ecosystem Program*

Website: <http://www.ioinst.org/bclme/>

*Strategic Action Programme for the South Pacific Small Island Developing States*

Website: <http://www.sprep.org/ws/iw/default.htm>

*Building Environmental Citizenship to Support Transboundary Pollution Reduction in the Danube River: A Pilot Project in Hungary and Slovenia*

Website: <http://www.rec.org/REC/Programs/PublicParticipation/DanubeInformation/>

## **United Kingdom**

*Safeguarding our Seas*

Website: [http://www.defra.gov.uk/environment/marine/stewardship/pdf/marine\\_stewardship.pdf](http://www.defra.gov.uk/environment/marine/stewardship/pdf/marine_stewardship.pdf)

## **United States with multiple partners**

*Geographic Information for Sustainable Development: A Public-private Partnership for Use of Remote Sensing Data by Decision-Makers in Africa, with an Oceans and Coasts Component*

Website: <http://www.opengis.org/gisd/>

*My Community, Our Earth; Geographic Learning for Sustainable Development*

Website: <http://www.geography.com/sustainable/>

## **2.4 Oceans Events and Discussions at the WSSD**

Various discussions, side and parallel events on oceans, coasts and islands will take place during the WSSD. For their schedule, see **Table 4**. For locating the venue of the events see the map on page 30.

### **Discussions on Achieving Synergy in WSSD Outcomes on Oceans, Coasts, and Islands**

Discussions will be held in Johannesburg on ways of achieving effective implementation of WSSD outcomes on oceans, coasts, and islands and of ways of achieving synergy among Type II initiatives. See meeting of the WSSD Informal Coordinating Group and a working session on achieving synergy among Type II initiatives (see **Table 4** for dates and venues).

### **Exhibitions and Events at the WaterDome-H<sub>2</sub>O Pavilion**

The multi-stakeholder Hilltops-2-Oceans Pavilion draws attention to the links between freshwater, coastal and marine issues. Establishing the cause and effect relationship between activities on land and the health of the oceans, it is the only display within the WaterDome that recognises the importance of oceans for sustainable development.

The colorful and diverse walk-through display is a cooperative effort bringing together partners from government, civil society, academia, the private sector and intergovernmental organizations in a unique exhibition. It demonstrates experience, vision and opportunity for managing water for sustainable development from the tops of the mountains to the expense of the oceans. It highlights the need to mitigate water pollution and resource degradation throughout the water cycle. It promotes partnerships, cooperative activities, alliances and networks in both freshwater and marine issues.

The H<sub>2</sub>O Pavilion also provides facilities and space for significant events consistent with its theme. These may include press briefings, book launches, type II announcements, etc.

#### **Exhibitors in the H<sub>2</sub>O Pavilion include:**

- Monaco, Coopération Internationale pour l'environnement et le développement
- Seawater Farms Eritrea, and Seawater Forest Initiative
- Oceana
- Wildlife Conservation Society
- National Geographic
- Center for the Study of Marine Policy, University of Delaware
- Ocean Futures Society, Jean-Michael Cousteau
- Ruimtelijk Planbureau, commissioned by the Netherlands Agency for Spatial Research of the Netherlands to develop concepts regarding the future of the North Sea and Dutch coastline
- Government of Canada, Department of Fisheries and Oceans, Environment Canada
- International Coral Reef Action Network (ICLARM, WRI, CORAL, GCRMN, ICRI, SPREP, UNEP, UNFIP)
- UN Atlas of the Oceans (UN, UN/DOALOS, UNEP, FAO, IOC, WMO, IMO, IAEA, CBD, NOAA, HDNO, CoML, Cinegram, National Geographic, UNFIP)
- UNESCO/IOC Intergovernmental Oceanographic Commission
- UN/DOALOS Division of Oceans and the Law of the Sea
- UNEP - Mountain Programme (supporting the IYM International Year of the Mountains); Division of Technology, Industry and Economics; Collaborating Centre on Water and Environment UCC-Water (DHI); World Conservation Monitoring Centre; Global Programme of Action for the Protection of the Marine Environment from Land-based Activities; Global International Waters Assessment; and Regional Seas Programme

## ***Uniting for the Oceans: People, Oceans, Stewardship A Major Oceans Event on September 2***

On September 2, 2002, from 18:30-20:30, delegates and attendees at the WSSD will gather together in the WaterDome in Johannesburg to participate in a high level event highlighting "People, Oceans, and Stewardship." The event, hosted by representatives of the international oceans community, aims not only to bring good ocean stewardship and its importance to sustainable development into the limelight of the WSSD, but also to build an oceans alliance with pledges for concrete action on the ground beyond the Summit. At the event, government leaders, NGO representatives, industry leaders from the private sector, and entertainers will come together to both highlight the achievements of the WSSD on oceans, coasts and islands (the Type I outcomes) and also to announce the new Type II partnership initiatives for the sustainable development of marine areas. The event will feature addresses by high-level public officials, speeches and entertainment by celebrity musicians and artists, cinematic presentations, and awards to global leaders in the oceans field. The event will not only serve to focus public awareness on the benefits and importance of healthy oceans and intact marine environments, but also will strengthen the irrevocable linkage between the freshwater and the ocean community.



### 3. REFERENCES

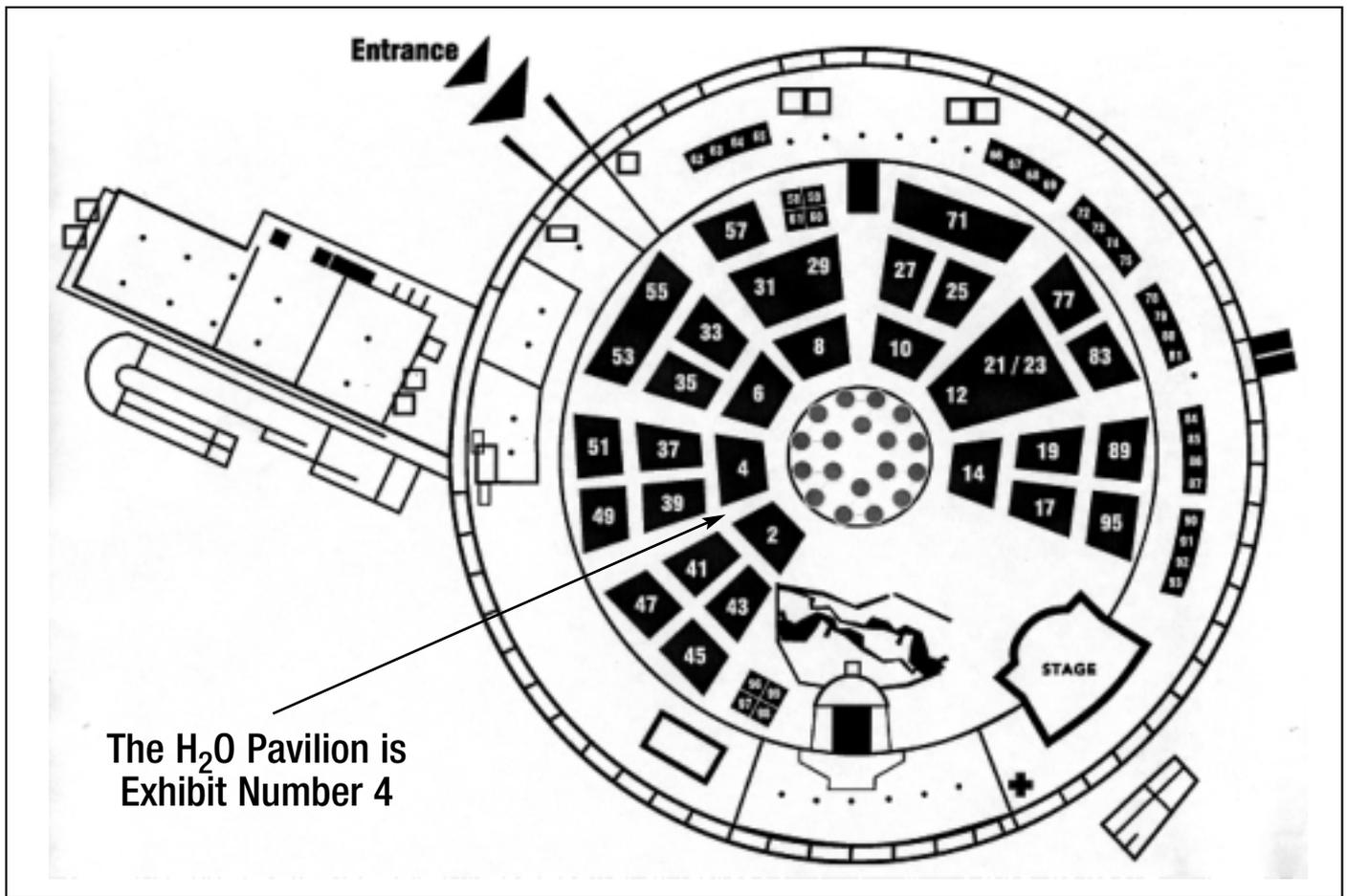
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Table 4. Calendar of Oceans Events at the WSSD

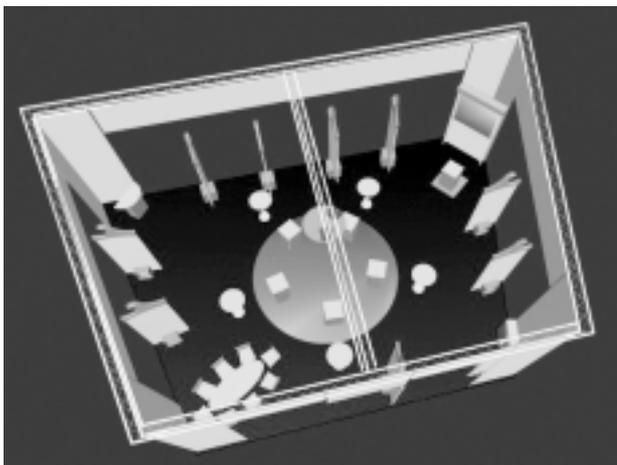
Sunday August 25	Monday August 26	Tuesday August 27	Wednesday August 28	Thursday August 29	Friday August 30	Saturday August 31
<p><u>Opening Ceremony</u> Ubuntu Village (18:00)</p> <p><u>Ocean and Environment Related Exhibit</u> Elsevier Publishers, U.K. Ubuntu Exhibition, Stand 179</p>	<p><u>WSSD Opening Plenary Session</u> Plenary Hall, Sandton Centre</p> <p><u>Plenary on Health (AM)</u> Plenary Hall, Sandton Centre</p> <p><b>*Oceans Coordinating Group IUCN Environment Centre (13:00-14:30)</b></p> <p><u>Plenary on Biodiversity/Ecosystem (PM)</u></p> <p><u>Side Event:</u> <u>Water for African Cities</u> J.N. Human Settlement Program Sandton Convention Centre (13:15-14:45)</p> <p><u>Side Event:</u> <u>Water, Climate and Agenda 21: Action by Local Government</u> International Council for Local Environmental Initiatives (Canada) Sandton Convention Centre (18:30-20:00)</p> <p><u>Discussion on The Millennium Ecosystem Assessment: Ecosystems and Human Well-being</u> Ubuntu Village (13:00-16:00)</p>	<p><u>WSSD Plenary on Agriculture (AM)</u> Plenary Hall, Sandton Centre</p> <p><b>*Oceans Coordinating Group IUCN Environment Centre (13:00-14:30)</b></p> <p><u>WSSD Plenary on Cross-sectoral aspects (PM)</u> Plenary Hall, Sandton Centre</p>	<p><u>WSSD Plenary on Water and Sanitation</u> Plenary Hall, Sandton Centre (AM)</p> <p><b>*Oceans Coordinating Group IUCN Environment Centre (13:00-14:30)</b></p> <p><u>WSSD Plenary on Energy</u> Plenary Hall, Sandton Centre (AM)</p> <p><u>Water and Sustainable Development: A Legal Perspective</u> Center for International Environmental Law (CIEL) Location and time TBA</p> <p><b>*Press conference on oceans</b> WaterDome (~18:00)</p> <p><b>*Opening of The H<sub>2</sub>O Pavilion:</b> <b>Water From The Hilltops To The Oceans Exhibition</b> WaterDome (28 Aug. — 3 Sep.)</p>	<p><u>Statements by Non-State Entities</u> Plenary Hall, Sandton Centre (all day)</p> <p><u>Parallel Event:</u> <u>Water, Regional Integration and Finance</u> WaterDome (all day)</p> <p><u>Parallel Events:</u> <u>Parliamentary Workshop on Clean Air and Clean Water</u> Summer Place Hotel (Aug. 29-30) (Preregistration Nec.)</p> <p><b>*National Programmes of Action for the Protection of the Marine Environment from Land-based Activities</b> WaterDome, (16:00-18:00)</p>	<p><u>Statements by Non-State Entities</u> Plenary Hall, Sandton Centre (all day)</p> <p><u>Parallel Events:</u> <u>Water and Food Security</u> WaterDome (all day)</p> <p><b>*Bringing Synergy among Type II Initiatives on Oceans, Coasts and Islands IUCN Environment Centre (09:30-12:00)</b></p> <p><u>Early Warnings and Sustainable Solutions: Climate Change and the Arctic Council</u> Dwarf Natal Plum Room, Ubuntu Conference Center (11:00-13:00)</p> <p><b>*Global Legislators for Improved Oceans Governance and Coastal Zone Management</b> WaterDome, (10:00-12:00)</p>	<p><u>Parallel Event:</u> <u>Water and Nature</u> WaterDome (all day)</p>
<p>Key meetings on oceans are shown by an asterisk and in bold.</p> <p>Meetings of the Oceans Coordinating Group are open.</p>						

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Sept. 1 <u>Parallel Event:</u> <i>Water, Energy and Climate</i> WaterDome (all day)  <u>Parallel Event:</u> <i>Water, health and poverty</i> IUCN Environment Centre (all day)  <i>High Level Side Event</i> <i>Pacific Islands Partnerships</i> Sandton Centre (Morning)  <i>ICRAN / ICR</i> WaterDome (13:00-15:00)  <i>ICRAN IMAX Show</i> <i>Reef Adventure</i> IMAX Theatre close to Sandton Centre (19:00)  <i>Island Night</i> Rosebank Hotel (Evening)	Sept. 2 <u>WSSD Plenary</u> <i>Speeches by Heads of State</i> Plenary Hall, Sandton Centre  <u>Parallel Event:</u> <i>Water, health and poverty</i> WaterDome (all day)  <b>*Coral Reefs Seminar</b> <b>IUCN Environment Centre (11:30-13:00)</b>  <b>*Mediterranean Action Plan</b> Waterdome (12:00-14:00)  <b>*African Coastal Management</b> Government of South Africa Venue TBA (13:15-14:45)  <b>*Press Conference on Oceans</b> WaterDome (17:30-18:15)  <b>*High Level Event:</b> <b>People, Oceans, Stewardship</b> WaterDome (18:30-20:30)  <b>*Reception following the High-level Event at the H<sub>2</sub>O Pavilion, WaterDome (to be confirmed)</b>	Sept. 3 <u>WSSD Plenary</u> <i>Speeches by Heads of State</i> Plenary Hall, Sandton Centre  <b>*Oceans Partnerships WaterDome (14:00-17:00)</b>  <u>Parallel Event:</u> <i>Water and Globalisation</i> WaterDome  <b>*From Baltic Sea to Lake Victoria</b> <b>Innovative Regional Partnerships for Transboundary Solutions to Sustainable Development</b> Government of Sweden Venue TBA (18:30-20:00)	Sept. 4 <u>WSSD Plenary</u> <i>Speeches by Heads of State</i> Plenary Hall, Sandton Centre	Sept. 5	Sept. 6	Sept. 7
Key meetings on oceans are shown by an asterisk and in bold. Meetings of the Oceans Coordinating Group are open.						

## Floorplan of the WaterDome



## The H<sub>2</sub>O Pavilion in the WaterDome







**Other relevant reports:**

Cicin-Sain, B., and Bernal, P., with Belfiore, S. and Barbieri, J. *Ensuring the Sustainable Development of Oceans and Coasts: A Call to Action—Co-Chairs' Report, The Global Conference on Oceans and Coasts at Rio+10, Paris, UNESCO, December 3-7, 2001*. Newark, Delaware: Center for the Study of Marine Policy, 2002

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