

Tropical Coasts

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From Ripples to Waves



Regional Cooperation in Motion

Kathrine Rose Gallardo

Maria Cecilia San

Issue Editors

When the first United Nations International Conference on the Human Environment was held in Stockholm, Sweden, in 1972, it created ripples of change and inspired the establishment of the Regional Seas Programme under the auspices of UNEP. It also heralded the beginning of the regional coastal and ocean governance movement.

Since that time, regional cooperation arrangements for the coastal and marine environment have increased in number and have become fundamental tools in providing common standards and frameworks for action. As a testament to the viability of the regional approach, various regions around the world now have programmes or mechanisms for the joint management of shared marine resources.

This issue is a review of experiences and approaches used thus far to manage shared marine resources in different parts of the world, as well as the developments and new initiatives related to coastal and ocean governance at the regional level. It aims to offer some insights on the elements of successful regional cooperation and on the future directions of the regional ocean governance, thereby supporting the work of the Nippon Foundation Research Task Force on the Dynamics of Regional Cooperation on Oceans and Coasts. The Regional Task Force is composed of experts and heads of organizations that have endeavored to support the strengthened implementation of programmes/initiatives related to ocean governance through the integration of information on good practices and the distillation of basic principles for achieving regional collaboration since 2004.

As posited in the opening article, "What Drives Regional Cooperation in Coastal and Ocean Governance?" there are a number of factors which can stimulate regional initiatives on the coasts and oceans, and these need to be harmonized in order to generate a dynamic process which sustains effective regional cooperation. Based on a review of existing regional programmes and mechanisms, the authors identify two governance approaches employed to date: one is the Regional Seas Model, widely based on the approach used by the UNEP Regional Seas Programme, which revolves around a framework of legally-binding instruments and action plans implemented by national institutions in cooperation with relevant partners; and the other is the Partnership Model, which shifts the focus from conventions and states to collaboration between government, business/industry and nongovernmental organizations.

The experiences of regions that have used the above approaches and the lessons they have learned are highlighted throughout the magazine. Although only a number of regions (i.e., Baltic, Benguela Current, Caribbean, East

Asia, Mediterranean, Northwest Pacific, Red Sea and Gulf of Aden, and Wider Caribbean) are represented in this collection of case studies*, this in no way means that initiatives in other parts of the world are any less important. On the contrary, all endeavors — whether small- or large-scale, new or old — contribute to the noble and necessary goal of sustainable development of the coastal and marine environment and resources through strengthened coastal and ocean governance, and for this reason, they are equally significant. (A more comprehensive review of the regions identified in the scope of the Regional Seas Programme may be found in the specially-produced Regional Mechanisms poster included in this issue.)

As can be seen from the sampling of regions featured in this issue, a wide majority of regions have chosen to follow the Regional Seas Model, namely the Baltic, Mediterranean, Red Sea and Gulf of Aden and the Wider Caribbean. These regions established mechanisms on ocean governance that are anchored on legally-binding agreements. While the UNEP-administered programmes in Northwest Pacific and East Asia rely on nonbinding instruments. In all these initiatives, the governments/states serve as the main conduits for action.

In the recent years, the Partnership Model, which emphasizes the engagement of various stakeholders apart from governments, emerged as a new approach in ocean governance. The piece entitled "Regional Arrangements for the Implementation of the SDS-SEA," presented a particular case in the East Asian region which focuses on the use of the Partnership Approach in achieving shared visions and objectives.

The establishment of collaborative mechanisms for ocean governance has proved to be a significant endeavor in steering the progress of regional initiatives. From the experiences of and lessons learned by the regions presented in this issue, several key elements necessary to overcome challenges as well as to sustain resilience in the face of enormous difficulties are highlighted, such as the need for flexibility and adaptive management, strengthened cooperation and communication, continuous capacity-building activities, financial support and investments, and the establishment of mechanisms or institutional infrastructures that can provide guidance and overall direction to the governance of regional sea areas.

This issue of Tropical Coasts emphasizes that while enormous progress has been made as regards coastal and ocean governance, a lot more needs to be accomplished. The complex nature of each regional sea area requires different approaches and strategies. As such, it must be noted that there is no "one correct approach." Faced with the two aforementioned choices, it is ultimately up to the concerned countries to decide which is more suitable to their respective environments. Whichever model is employed, in the end, what is most crucial to the success of regional cooperation initiatives is the enduring commitment of all involved parties and the will to withstand any and all challenges. If these are present, then the possibilities of collaborative efforts are virtually limitless and their successes will surely benefit the present generation and those to come. ■

* Note: The selection of regions was done in line with the activities of the Nippon Foundation Research Task Force and in consideration of the materials in the July 2003 issue of Tropical Coasts, Vol. 10, No. 1 "The Regional Approach: Harnessing Intergovernmental Partnerships for Sustainable Development of the World's Seas."

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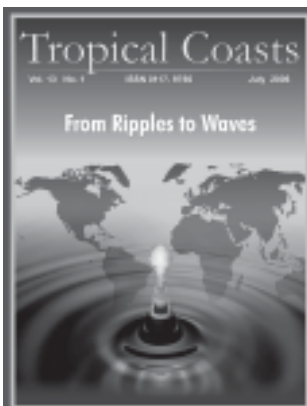
Regional Arrangement for the Implementation of the SDS-SEA: A Partnership Approach

Stella Regina Bernad, Kathrine Rose Gallardo and Chua Thia-Eng

On the Cover

From Ripples to Waves

This issue of Tropical Coasts focuses on the dynamics of regional cooperation on the coasts and oceans. Special attention is placed on the challenges and benefits of regional governance and partnerships in working towards the achievement of shared visions for shared resources.



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Regional Mechanisms for Coastal and Ocean Governance

A pullout map featuring areas of the world that have adopted the regional approach in the conservation, management and development of their coastal and marine environment and resources is provided in this issue.

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Introduction

The health of our coastal and marine ecosystems and the sustainability of the resources therein are crucial to our service-oriented economy and to the protection of the lives and properties of coastal populations — not least because of their significance to the supply and availability of freshwater and primary resources for food, medicine and maritime trade; to climate variability and the forecasting of climate-related events; and to the sustainability of biological diversity. These and the other benefits gained from ensuring the harmonious co-existence between human society, coasts and oceans highlight the urgent need for governance.

What Drives Regional Cooperation in Coastal and Ocean Governance?



Regional cooperation ensures the sustainable development of shared resources.

As each ocean region exhibits distinctive oceanographic features, resources, uses and interactions, analysts and natural resource managers stress the need for nations to cooperate at least at the regional level to address current and emerging environmental and natural resource transboundary issues. They also emphasize the importance of international organizations in implementing programs and providing funding assistance through the implementation frameworks of regional conventions or action plans. Support for their views may be found in the recent emphasis on ecosystem-based management and the use of the Large

Marine Ecosystem approach in numerous parts of the world (Kullenberg and Chua, 2004).

A considerable number of endeavors have been made in relation to regional coastal and ocean governance — some more effective than others, but all equally important in the efforts to ensure the well-being of populations and the sustainable development of shared resources. This article attempts, through a review of the key approaches and established regional mechanisms, to identify the triggers for and elements of successful regional cooperation and to analyze the dynamics that govern them.

Approaches to Regional Governance

Two approaches to regional governance related to coasts and oceans have emerged over the years: the Regional Seas Model and the Partnership Model.

The Regional Seas Model

In 1974, following the 1972 United Nations Conference on the Human Environment or Stockholm Conference (which underscored the advantages of intergovernmental cooperation and the regional level of governance in helping mitigate global problems), the Regional Seas Programme (RSP) was created under the United Nations Environment Programme (UNEP) umbrella as a global, action-oriented initiative to be implemented through a number of regional components. The RSP was conceived as encompassing a comprehensive, cross-sectoral approach to coastal and marine areas, as well as to environmental problems concerning both the causes and consequences of environmental degradation. Since its establishment in the 1970s, a total of 13 regions — including the Black Sea, East Asian Seas, East Africa, Mediterranean Sea, Northeast Pacific, Northwest Pacific, Red Sea and Gulf of Aden, ROPME (Regional Organization for the Protection of the Marine Environment) Sea Area, South Asian Seas, South Pacific, Southeast Pacific, West and Central Africa, and Wider Caribbean — and over 140 countries, states and

In 1974, following the 1972 United Nations Conference on the Human Environment or Stockholm Conference (which underscored the advantages of intergovernmental cooperation and the regional level of governance in helping mitigate global problems), the Regional Seas Programme was created under the United Nations Environment Programme umbrella as a global, action-oriented initiative to be implemented through a number of regional components.

territories have participated in the RSP. (Melvasalo, 2006)

There are a number of regions, such as the Baltic Sea and Northwest Atlantic, that have chosen to implement separate regional programs, conventions and action plans. (See Table 1 for comparison of the Caribbean, Baltic and South Pacific regions.) Still, these groups of countries adopt essentially the same methods as those who have subscribed to the Regional Seas approach — in the sense that they are based on the framework of legally-binding instruments and periodically revised action plans adopted by high-level intergovernmental meetings and implemented by national institutions (nominated by the participating countries/contracting parties), in cooperation with relevant

international, regional and national partners. (UNEP, 2006)

The Partnership Model

A new model, focusing on the mobilization of and collaboration between three key sectors in society, i.e., government, business/industry and nongovernmental organizations (NGOs), has been espoused by the Global Environment Facility/United Nations Development Programme/International Maritime Organization Regional Programme on Partnerships in Environmental Management for the Seas of East Asia (PEMSEA) and other like-minded organizations in recent years. Revolving around a regional strategy with a set of priority areas instead of a formal convention or legal instrument, the Partnership Model highlights the spirit of

The experiences of the Danube River and Great Lakes show us that cooperation is most effective when it concerns common resources that are of enormous social and economic importance for the associated countries and when it is triggered by an alarming level of environmental or ecosystem degradation.

cooperation and common responsibility, and links the interests and needs of stakeholders towards a common vision in much the same way as the oceanic motion links all scales of motions (as conceptualized in Elizabeth Mann Borgese's "Oceanic Circle," 1998) — putting partnerships at the center, rather than governments. It recommends the integrated approach involving all stakeholders and combining the top-down and bottom-up approaches in order to achieve the shared vision and related objectives and principles. The Partnership Model also moves away from the current emphasis on project orientation to a more process- and result-oriented mode of operation (Chua, 2006). [Editors' Note: See related articles by Bernad, Gallardo and Chua in this issue.]

Table 1: Comparison between Selected Regions: Caribbean, Baltic and South Pacific.

Region	Trigger	Approach	Limiting Factors
Wider Caribbean	<ul style="list-style-type: none"> Degradation of coastal and marine resources, loss of biodiversity, pollution hotspots and vulnerability Dependence upon fisheries, tourism, maritime transport and ecosystem 	<ul style="list-style-type: none"> Top-down approach, initially driven by scientific communities and NGOs 	<ul style="list-style-type: none"> No shared vision Lack of financial resources, political will, national policies and capacities Sectoral approach Diversity within the region with respect to development, economy, culture, population density and poverty
Baltic	<ul style="list-style-type: none"> Deterioration of the marine environment with increasing pollution loads and eutrophication, loss of fisheries and threatened biodiversity 	<ul style="list-style-type: none"> Top-down approach 	<ul style="list-style-type: none"> Sectoral approach Diversity between the countries regarding the economy and life conditions
South Pacific	<ul style="list-style-type: none"> Overexploitation of natural resources and ecosystems, pollution and destruction/ degradation of habitats 	<ul style="list-style-type: none"> Consensus approach 	<ul style="list-style-type: none"> Size of countries with small populations, the remoteness and vast area of the Exclusive Economic Zones, and high transportation costs Limited human and financial resources Weak political will

Box 1. Success Stories: Danube River and Great Lakes.

Common Challenges

While both models have the potential to be effective in ensuring the sustainable use and management of coastal and ocean resources and in solving transboundary problems, regional cooperation efforts have not all been as successful as had been hoped or expected. In fact, apart from the experiences of the Great Lakes and Danube River Basin regions, the implementation and results of regional mechanisms have thus far been weak.

The experiences of the Danube River and Great Lakes (Box 1) show us that cooperation is most effective when it concerns common resources that are of enormous social and economic importance for the associated countries and when it is triggered by an alarming level of environmental or ecosystem degradation. The role of scientific communities in bringing the gravity of situation, as well as the importance of action, to the attention of stakeholders in these two cases must not be underestimated. The development of a shared vision, the establishment of platforms for stakeholders to come together, and the putting in place of implementation and results monitoring mechanisms are also equally significant.

What then can be learned from regional initiatives that generally have not met expectations? Clearly, the most common reason for the lack of success stories in regional cooperation is the inability to mobilize resources to implement programs after the brief start-up period, mainly because of the lack of ownership and the frequent unwillingness of governments to allocate needed

Two regional mechanisms, in particular the efforts dealing with issues facing the Great Lakes and Danube River Basin, have been successful in dealing with transboundary coastal and marine issues and problems.

Great Lakes

Bilateral cooperation between the United States and Canada in the management of their shared waters started through the Boundary Waters Treaty of 1909. Under the authority of this treaty, the International Joint Commission (IJC) was created. In 1972, the two countries signed the Great Lakes Water Quality Agreement with an aim to restore and maintain the chemical, physical and biological integrity of the Great Lakes Basin and the international section of the St. Lawrence River. This international agreement, which was renewed in 1978 and amended in 1987, provides a good example of how two different countries can work hand in hand to address the issues besetting their shared waters. Some of the programs created in line with the agreement are the lakewide management plan, research activities and water quality monitoring. The periodic reporting, public consultation and monitoring of progress by the IJC have ensured continuous implementation as well as strengthened the accountability of both governments. Over the years, the Agreement has been recognized by the two countries as a "blueprint for action and coordination of largely successful stewardship of the Great Lakes for more than 30 years" (Great Lakes Declaration, 2003).



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Danube River Basin

Initiatives related to the Danube River Basin commenced in the 1990s through the signing of the Danube River Protection Convention (1994) and the subsequent establishment of the International Commission for the Protection of the Danube River (1998). Since then, considerable progress has been made in terms of public awareness creation, achieving political and resource commitments (despite having economies in transition), cooperation involving local, regional and international stakeholders for the implementation of the Action Programme, Strategic Action Plan and Joint Action Programme, and the development of an investment portfolio with numerous national projects.



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finances. This leads to the lack of visible socioeconomic results and, in turn, to the loss of trust and belief in the usefulness of the mechanism — a Catch 22 situation, exacerbated by the fact that agreed programs are often too ambitious. The vagueness of the objectives and responsibilities identified in the regional mechanisms/convention also factor into why well-intentioned action plans and programs are not implemented optimally to the benefit of the region's population.

Other challenges often faced by regional cooperation efforts are:

On the regional level

- Vagueness in the objectives and responsibilities of the regional mechanisms/conventions and the resulting lack of focus in operation;
- Sectoral and often ad hoc nature of approaches used to address coastal and marine problems, and related difficulties in pinpointing socioeconomic consequences and impacts;
- Diversity regarding culture, religion, politics, human and economic capacity; and
- Lack of consensus among parties regarding priorities.

On the national level

- Political and socioeconomic instability;
- Lack of an ocean-related institutional home base;

- Lack of proper institutional and management tools and the difficulty of effectively implementing international agreements on coasts and oceans at the national level, given primarily development-gearred policies and reactive rather than proactive governance systems;
- Lack of public awareness on coastal and ocean issues, problems and environmental policies;
- Lack of appreciation and ownership of common heritage; and
- Insufficient technical capacity and human resources to address complex coastal and marine issues.

2. Harmonization of the above and other factors is essential in generating a dynamic process which drives and sustains effective regional cooperation. Elements that promote harmonization include:

- A shared vision for the protection and equitable use of shared resources, representing common understanding and taking into account common values on development and management;
- A management framework — in the form of a holistic regional strategy and integrated action plans and programs — that identifies how the shared vision can be achieved by all stakeholders and how progress may be monitored and evaluated;
- A platform where all stakeholders can participate at all levels, thereby facilitating the formation of inclusive partnerships (between stakeholders, public and private institutions, and enterprises) to help achieve the shared vision; and

Key Ingredients of Regional Cooperation

Based on the lessons learned from successful mechanisms and the challenges faced by other regional endeavors, the following insights may be gathered:

1. There are several dominant factors which can stimulate regional cooperation on oceans and coasts and ensure success in achieving the goal of sustainable development. These are:
 - Triggers, such as transboundary problems that generate common concern for shared resources — e.g., marine pollution, biodiversity, etc.;

- A partnership arrangement wherein concerned stakeholders are driven to achieve the shared vision and regional cooperation through common understanding, synergies and desired goals.

However, getting all the elements in place is only half the battle. Securing adequate funding streams with cost-sharing arrangements, as well as ensuring purposive and strengthened capacity building need to be addressed properly and promptly. Awareness creation with institution building and networking, information integration and science-based management support, active communication and advocacy, and adaptive management are also important, but not easy to achieve. Then there is the need for a leader or champion in the region and at all levels within each concerned country to rally support and promote the application of integrated management approaches and good practices in the process — a requirement which cannot be overstated.

Conclusions

As can be seen from the experiences of regional initiatives thus far, the existence of a ratified legal instrument such as a regional convention does not guarantee successful governance. The success or failure of cooperation is decided by a combination of factors — i.e., political and socioeconomic climate, available financial and human resources, and political will, among

others — and the wise use of driving forces to forge collaboration, strengthen partnership and optimize available resources for the timely delivery of outputs. Achieving effective regional cooperation on coasts and oceans is not a simple task, but it is for noble ends. Though current initiatives to ensure the responsible and

sustainable management of shared resources have not been as successful as envisioned, their efforts have not been for naught. The action plans and programs implemented have positively impacted the lives of countless individuals, and they will certainly continue to redound to the benefit of present and future generations. ■

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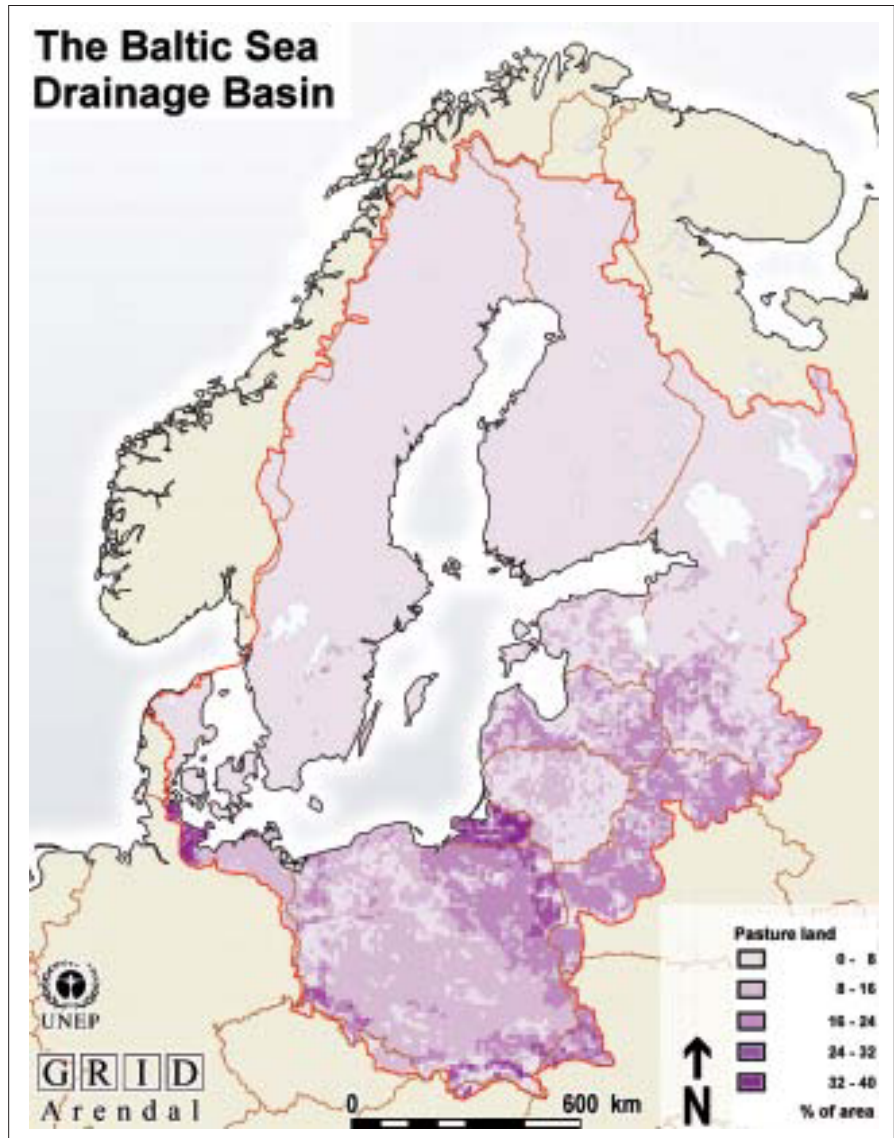
HELCOM: Overcoming Challenges in the Baltic Sea

Introduction

Apart from being one of the world's geologically youngest aquatic environments, the Baltic Sea is also the largest brackish water body — with 368,000 km² (0.1 percent of the world's oceans) and 1.8 million km² of sea and drainage area, respectively. This semi-enclosed sea has a strong estuarine character, but at the same time very restricted water exchange with the ocean (i.e., water renewal time is estimated to be some 30–40 years). Its stagnant deep water is occasionally exchanged through inflows of water with higher density that fill the deep basins with oxygen-containing waters, though the bottom layers have been reported to turn anoxic from time to time (Voipio, 1981).

Due to salinity instability, species composition in the Baltic is scarce, unique and under continuous stress.

The Baltic Sea Drainage Basin



Environmental Changes in the Baltic Sea

Oceanographic investigations, particularly observations of salinity, temperature and oxygen in the deep

basins began in 1893, although some geographic research and analysis (e.g., the land uplift in the northernmost countries) was conducted earlier. Despite some gaps during the First and Second

World Wars, scientific observations have continued to the present day, thereby providing reliable background information on the region's marine environment (Mälkki, 2001).

The open Baltic Sea was once described as relatively clean in the 1950s. However, the Industrial Revolution, population explosion and urbanization in surrounding countries, as well as the increased sea use in the 1950s and 1960s, strained the sea's vulnerable ecosystem. By the end of the 1960s, there was deep concern about increasing pollution due to discharges (i.e., through rivers, outfalls and pipelines) from cities and industries, dumping and normal operations of vessels, and recreation and fishing activities in the archipelagos and beaches.

Almost 85 million people now live in the catchment area — 30 million of whom still lack proper wastewater treatment. Untreated and unmanaged wastewaters have caused eutrophication of the sea, including the open sea and central basins. Adding to this burden are: harmful heavy metals, chemicals and organic substances from industries (e.g., pulp and paper) in the catchment area that enter the sea via watercourses and the atmosphere; and oil spills and illegal discharges from ships — both of which have resulted in the deaths of birds, fish and seals and other ecological disasters.¹

By the end of the 1960s, there was deep concern about increasing pollution due to discharges (i.e., through rivers, outfalls and pipelines) from cities and industries, dumping and normal operations of vessels, and recreation and fishing activities in the archipelagos and beaches.

The anthropogenic eutrophication of the sea has stimulated fish production, thereby triggering the establishment of a number of fish farms in the archipelagos. Agricultural effluents (containing pesticides, nutrients, nitrogen and phosphorus compounds) from these fish farms have polluted the sea further. Even more worrisome is the fact that some chemical compounds (i.e., toxic synthetic persistent organic compounds that had never existed before) have been found throughout the area in water, sediment, biota and even in the food chain (Melvasalo, et al., 1981).

The input of large amounts of phosphorus and nitrogen compounds into the Baltic Sea has also caused continuously excessive growth of biomass and toxic algae.

In spite of investments in different treatment plants and efforts to reduce pollution from the catchment area, blue-green algal blooms are still an annual nuisance in the Baltic Sea, and they have been predicted to recur for the next several years and decades because of the internal load of nutrients.

Joint Action for the Baltic Sea

In the early 1970s, responsible authorities in many Baltic Sea countries began to recognize that the protection and development of the marine environment could not be effectively accomplished solely by national efforts or bilateral subregional cooperation. It became obvious that close regional multilateral cooperation of all riparian countries and other appropriate international measures was urgently needed to protect the Baltic Sea.

¹ In the 1970s, more than a hundred million tons of oil were carried through the Baltic Sea annually. This figure and the risk of discharges has gone up tremendously over the years as a result of the increase in oil transportation activities and the construction of new oil harbours, thus prompting the International Maritime Organization to declare the Baltic Sea as a "special area" in 2004 because of stricter regulations against oil pollution.

When it was signed in 1974, the Helsinki Convention became the first international agreement to cover land, ship and airborne sources of pollution. While the internal waters were excluded from the scope of the Convention, the Contracting Parties ensured that the objectives of the instrument were achieved in their internal waters in actual operations.



The first United Nations International Conference on the Human Environment, held in Stockholm, Sweden, in 1972, initiated and recommended immediate and concrete actions to protect and improve the marine environment. During the Conference, all seven Baltic Sea states expressed their concern on the pollution of their shared environment and their willingness to take action to improve the situation. Instead of joining the newly-established UNEP Regional Seas Programme, they decided to establish their own independent intergovernmental cooperation body at the highest political level — the Baltic Marine Environment Protection Commission or Helsinki Commission (HELCOM).

The Helsinki Convention

The drafting of and preparations for the Convention on the Protection of the Marine Environment of the Baltic Sea Area (also called the "Helsinki Convention") began after the Conference in Stockholm. The Convention was signed two years later in March 1974 by the seven Baltic Sea states — Denmark, Finland, German Democratic Republic, Federal Republic of Germany, Poland, Sweden and the Union of the Soviet Socialist Republics (USSR). The number of participating countries was reduced to six in 1990 due to the unification of Germany, but increased in 1991 because of the dissolution of the USSR. At present, there are 14 countries in the sea's catchment area, but only the nine coastal states of the Baltic Sea (i.e., Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Sweden and Russia) are contracting parties to the Convention (HELCOM, 2004).

When it was signed in 1974, the Helsinki Convention became the first international

agreement to cover land, ship and airborne sources of pollution. While the internal waters were excluded from the scope of the Convention, the Contracting Parties ensured that the objectives of the instrument were achieved in their internal waters in actual operations.²

HELCOM

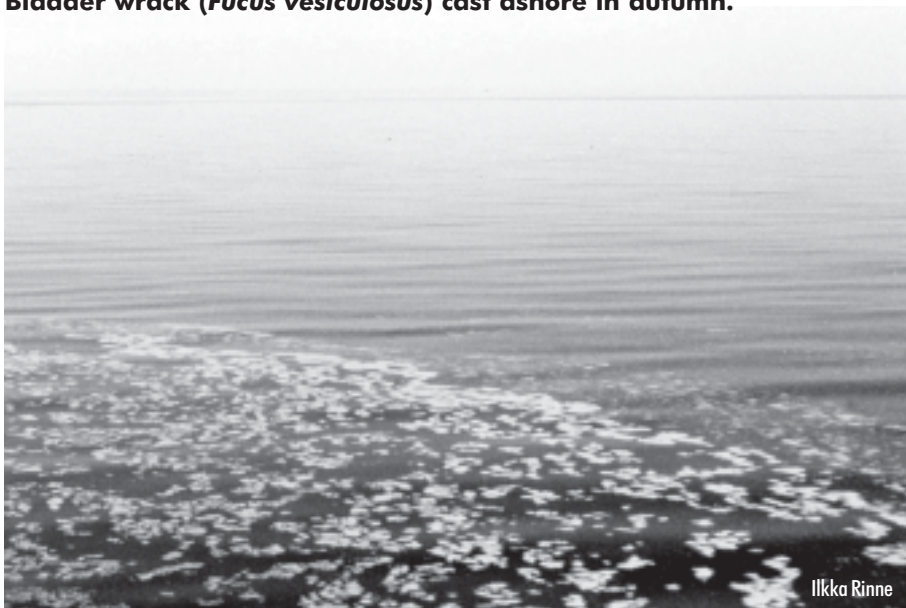
Soon after the signing of the 1974 Convention, an Interim Commission was established to facilitate work until the instrument's ratification. The Commission, which operated from 1974 to 1980, was composed of a decisionmaking level, annual meetings, and administrative and expert-level gatherings in two permanent working groups (namely, the Scientific-Technological and Maritime Working Groups). Other committees and one sub-group were also formed to respond to questions and issues.

In 1980, a permanent governing body (i.e., HELCOM) and an international Secretariat were established in Helsinki, Finland. Also during this time, an overall assessment of the effects of pollution on the natural resources of the Baltic Sea's marine environment was compiled and plans for a comprehensive joint monitoring program were presented. Existing and established bilateral contacts proved valuable in these endeavors, particularly in facilitating



Pentti Kangas

Bladder wrack (*Fucus vesiculosus*) cast ashore in autumn.



Ilkka Rinne

Bloom of blue-green algae.

the exchange of information on scientific results among the countries. In order to further support information exchange, the compilation of literature (both published and unpublished materials) for the HELCOM Bibliography — i.e., a set of data and materials sent to participating countries — was subsequently established as an annual activity.

Since the 1980s, Ministerial Meetings, considered political milestone events, have been organized regularly and have resulted in the adoption of Ministerial Declarations (HELCOM, 1998; 2003a). Regular meetings of the Commission Chairs and committees have also been held and have been participated in by some relevant intergovernmental and nongovernmental organizations that were accepted as observers when transparency in the Baltic Sea cooperation

² The Convention was later revised to include coastal waters and as a result, the whole catchment area of the Baltic Sea became a target area. The new Convention was signed in 1992. It replaced the 1974 Convention when it entered into force in January 2000.

The 20-year Programme (1992-2012) focuses on the 132 biggest polluters, "hotspots" with both point and diffuse sources of pollution in the drainage basin of the Baltic Sea and in some landlocked countries that are not members of the Helsinki Convention.

increased and political interest became evident.

In 1990, the Prime Ministers of the Baltic Sea States decided to set up an ad hoc High Level Task Force to elaborate a programme to restore the Baltic Sea to sound ecological balance. The Joint Comprehensive

Environmental Action Programme was adopted by the Ministers of Environment in 1992 and the Programme Implementation Task Force (HELCOM PITF) was established (HELCOM, 2003b). The 20-year Programme (1992–2012) focuses on the 132 biggest polluters, "hotspots" with both point and diffuse sources of pollution in the drainage basin of the Baltic Sea and in some landlocked countries that are not members of the Helsinki Convention. Many of these hotspots have already been removed from the list, as a result of measures taken either by the countries alone or with bilateral or multilateral assistance and various funding mechanisms.³ This is an example of the great impact that the HELCOM work has had in the protection of the marine environment.

HELCOM's recommendations on concrete actions (complete with follow-up responsibilities, implementation and reporting timetables, and lead countries) have been the key in the implementation of the Convention throughout the years.

These recommendations have sound basis — i.e., assessments on the state of the marine environment are jointly prepared and regularly published, using agreed upon parameters and a quality assurance strategy, reliable research and monitoring methodologies, among others.

Achievements that may be attributed to the work of the Commission are the:

- Banning of dichlorodiphenyltrichloroethylene (DDT) and the strict limitation of the use of polychlorobiphenyl (PCB);
- Limitation of ship discharge and establishment of reception facilities for wastes in ports;
- Establishment of rules and guidelines for cooperation in combating oil spills, as well as joint guidelines for the assessment of the state of the marine environment;
- Establishment of international rules of pilotage and safe routes for large ships and of a position reporting system for ships carrying hazardous cargoes;
- Decrease in the mercury concentration in fish and other living organisms;
- Recovery of some endangered species, such as seals and white-tailed eagles;
- Definite decrease in the amount of ship-generated pollution and ship-generated litter; and

Plankton sampling in April in the Northern Baltic.

³ The adoption of the programme, nomination of the hotspots, as well as their removal from the list are based on unanimous decisions of all riparian countries.

- Increased awareness and open dialogue among the scientists, decisionmakers and the public regarding the threats to and problems of the Baltic Sea.

These successes have encouraged continued joint efforts to reduce pollution from all possible sources and agreements on further measures for the maritime and land-based areas.

Resilience of HELCOM

During the first 20 years of the Convention and HELCOM, there were numerous political difficulties and drastic changes in the riparian countries. In spite of this and despite challenges related to financing operations, cooperation and enthusiasm in achieving joint objectives and implementing activities for the benefit of the Baltic Sea environment has continued.

The strength and efficiency of the HELCOM working structure and format in the face of enormous hurdles may be attributed to the:

- Long history of cooperation in the region in terms of providing scientific data for the benefit of the health of the Baltic Sea;
- Wise utilization of both traditional cooperation between neighboring countries and multilateral regional cooperation on scientific and cultural levels;
- Involvement of partners from all levels (i.e., intergovernmental, expert, administrative and

- decisionmakers' levels); and
- Flexibility of the decisionmaking structure and the ability to harmonize its goals with respect to social, scientific and political changes.

By building on these strengths, HELCOM has been able to keep with its main goals.

Conclusion

Many positive changes in the Baltic Sea have been observed as a consequence of action taken by participating countries and other involved organizations. However, a lot of work remains to be done to fulfil the agreements. Problems with eutrophication, hazardous substances, changes in biodiversity and those brought on by developments in the shipping industry are still present, and it may take several decades of efforts to reduce the load before the results in the Baltic Sea ecosystem are seen.



Eider Duck in an oil spill.



Research vessel Aranda working in ice-covered Baltic Sea.

The greatest challenge still lies in the future. To restore the Baltic Sea to a sound ecological level, similar to its state in the 1950s, is an enormous task. Nevertheless, it is a realistic goal, achievable through the sustained joint efforts and increased concrete actions of all countries and through the continued support from and leadership of HELCOM. ■

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Introduction

In the Mediterranean, cooperation in the field of marine environmental protection dates from 1975, with the creation of the Mediterranean Action Plan (MAP), the first action plan established under UNEP's Regional Seas Programme. The MAP was conceived to assist the Mediterranean countries to assess and control marine pollution, to formulate their national environment policies, to improve the ability of governments to identify better options for alternative patterns of development and to optimize the choices for allocation of resources. Its environmental objectives were embodied in the Convention for the Protection of the Mediterranean Sea against Pollution (the Barcelona Convention, adopted in 1976 and entered into force in 1978) and in a series of related protocols dealing with specific subjects (marine pollution, pollution from land-based sources and specially protected areas and biodiversity).

The Mediterranean: Regional Cooperation in a Global Context



<http://dammysdesktop.themesunlimited.com/Files/nasa/MediterraneanSea.jpg>

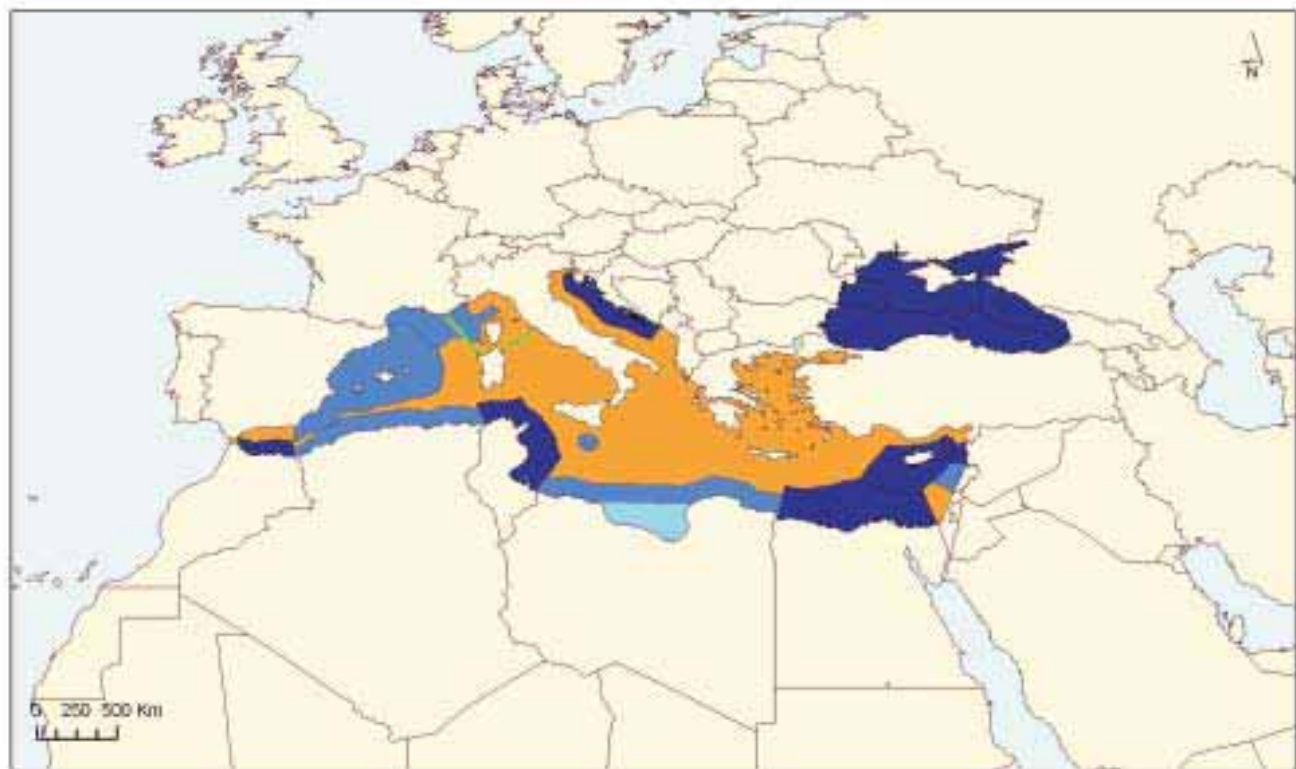
Currently participated by 21 countries and the European Commission, the MAP has a coordinating unit, located in Athens, and six specialized regional activity centers (systemic and prospective studies, integrated coastal area management, marine biodiversity, prevention and response to marine pollution, remote sensing and cleaner production) that assist countries in the implementation of activities. Among the most notable outcomes of the MAP was the establishment of the Programme for the Assessment and Control of Pollution in the Mediterranean Region (MED POL), which aims to assess the quality of the marine environment and which is participated in by laboratories from the entire region.

Key Developments since 1995

Phase II of the MAP

Following the United Nations Conference on Environment and Development (UNCED) of 1992, the entire system of the MAP was redesigned to address, in a less sectoral way, environmental and developmental issues originating on land through integrated coastal area management (ICAM). Such an approach led to the adoption in 1995 of the Action Plan for the Protection of the Marine Environment and the Sustainable Development of the Coastal Areas of the Mediterranean (MAP Phase II) (UNEP/MAP, 1995). The evolution in the scope of the MAP implied that the Plan became more encompassing, thus

Box 1: Jurisdictional Zones in the Mediterranean Sea based on Historical Uses (Historic Bays), Ecological Zones, Exclusive Economic Zones (EEZs) and Areas beyond National Jurisdiction.



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Departamento de Geografía Humana
BSO2003-03576

Proyector: GCS_WGS_1984

ALZAMAR (HIGH SEAS)
BAHIA HISTORICA (HISTORIC BAYS)

ZEE (EEZ)
ZONA DE PESCA/ZONA DE PROTECCIÓN ECOLÓGICA (ECOLOGICAL ZONES)

LIMITE DE ESTADOS (FISHERIES/ECOLOGICAL ZONES)

The Mediterranean Sea is the only regional sea which has enjoyed a regime of high seas even after the codification of maritime jurisdictional zones by the UNCLOS. This particular condition owes to the special geopolitical situation of the region. While only three fishery zones were established until the 1990s in the Western Mediterranean (Malta, 1971; Algeria, 1994; Spain, 1997), these past few years have seen the creation of EEZs (Syria, 2003; Cyprus, 2004; Tunisia, 2005), new fishery zones (Libya, 2005) and a new jurisdictional zone, i.e., the ecological protection zone. The establishment of an ecological protection zone by France in 2003 was followed by Croatia (Ecological and Fisheries Protection Zone, 2003) and Slovenia (2005). The EEZs established by

Morocco in 1981 and Egypt in 2004* are also worth mentioning. Albania, Greece, Israel, Lebanon, Monaco, Serbia and Montenegro and Turkey only have a territorial sea and this accounts for their particular geographic situation, including the difficult delimitation of boundaries between Greece and Turkey. Algeria, Cyprus, Egypt, France, Malta, Morocco, Spain, Syria and Tunisia have established contiguous zones, where issues concerning customs, immigration and the protection of cultural heritage can be regulated. It is possible to recognize a pattern where fishery issues appear predominant in the western Mediterranean, ecological protection in the central northern Mediterranean, and territorial issues in North Africa and the Middle East.

* although with no clear specification for the Mediterranean

The MAP provided a long-awaited framework for multilateral exchange of information, dialogue, collaboration and cooperation among its Parties. Originally conceived as a marine-oriented agreement, the Barcelona Convention was amended in the same year to leave open the possibility to the Contracting Parties to extend its application to their coastal areas.

providing a framework not only for environmental and scientific cooperation but also social, cultural and economic cooperation. It provided a long-awaited framework for multilateral exchange of information, dialogue, collaboration and cooperation among its Parties. Originally conceived as a marine-oriented agreement, the Barcelona Convention was amended in the same year to leave open the possibility to the Contracting Parties to extend its application to their coastal areas. The revised Convention entered into force in 2004 and to date, the only ratification explicitly mentioning its application to the coastal zone is that of Italy's. A new protocol on ICAM that aims to establish a common framework for the management of coastal zones and regional cooperation in this field is under elaboration. The renewed MAP laid the basis for a process aimed at defining uses of the Mediterranean space and resources in a manner that is consistent with the region's ecological features and

social equitableness. Despite the fact that establishment of marine jurisdictional zones in the Mediterranean has not followed a systematic pattern but is rather the mixed consequence of national claims and the application of policy measures at the level of the European Union (EU) and the reflection of countries' capabilities to extend their activities to the high seas, the current situation represents an optimal case for establishing a regional model of management of marine spaces and resources based on cooperative measures. An example comes from the establishment of the Mediterranean Marine Mammal Sanctuary by France, Italy and Monaco in the Upper Tyrrhenian and encompassing areas beyond the jurisdiction of the Parties. Signed in 1999 and entered into force in 2002, the Agreement establishing the Sanctuary promotes conservation of marine mammals and scientific research and relies on existing governance arrangements for waters subject to sovereignty or jurisdiction

of the Parties and on measures for ships flying their flags on the high seas.

The Euro-Mediterranean Process and the Enlargement of the European Union

A Euro-Mediterranean Conference of Ministers of Foreign Affairs, held in Barcelona on 27–28 November 1995, launched the Euro-Mediterranean Partnership (Barcelona Process), a framework for cooperation in the political, economic and social sectors between the Member States of the EU and partners of the Southern Mediterranean (EU, 1995). The main objectives of the Barcelona Process are the: creation of an area of peace and stability; the progressive establishment of a free trade area; and the strengthening of a social, cultural and human partnership. This process is being advanced through both bilateral and multilateral relations. In particular, the Mediterranean Development Assistance programme (MEDA), the financial instrument of the process, has funded cooperative projects for a total of 5.458 billion (about US\$7 billion) during the period 1995–2003. Among its projects, MEDA includes the Short and Medium-Term Priority Environmental Action Programme (SMAP), which supports actions for integrated water management, integrated waste management, emergency environmental management of hotspots, integrated coastal zone management and combating desertification. Such actions represent

the region's contribution and support to the implementation of the main Multilateral Environmental Agreements — the United Nations (UN) Conventions to Combat Desertification (and its Annex Concerning Implementation at the Regional Level for the Northern Mediterranean), the UN Framework Convention on Climate Change, the Convention on Biological Diversity, the Convention on Wetlands (Ramsar, 1971), the Convention on Migratory Species, the Convention on the International Trade of Endangered Species, etc.

With the enlargement of the EU in 2004 came several implications in various areas, such as the enhancement and harmonization of approaches to environmental management, including environmental legislation and subregional cooperative actions in the marine environmental field. In the longer term, the EU enlargement process will be instrumental in implementing the agreed goals of the Barcelona Process with specific regard to peace and stability and the creation and maintenance of a functioning free trade area. This however will necessitate reliance on an effective partnership to ensure the fulfillment of an environmental, social and cultural sustainable development. The contribution of other regional cooperation forums and processes to the evolution of cooperation between Mediterranean countries should not be undermined, although such contributions have been made on a

topical basis without considering explicitly or in-depth possible synergistic effects. An example is the work of the North Atlantic Treaty Organization or NATO with regard to military cooperation, including peaceful purposes such as scientific and technological cooperation and normative work and program activities of the Council of Europe. Another example is the Ancona Charter which was signed in 2000 to promote cooperation in fields of peace and security in the Adriatic-Ionic region through economic development, as well as the enhancement of historical and cultural heritage.

An Evolving Jurisdictional Framework

Between 1992 and the present, a number of Multilateral Environmental Agreements and international plans of action agreed upon at high-level intergovernmental meetings and international conferences have emerged (Table 1). These processes and events reflect at the same time the specific needs of countries and also impose on them the obligation to implement international agreed provisions; moreover, they inform the design and implementation of overseas development assistance.

New issues have emerged in the cooperation agenda of the Mediterranean that are related to environmental, social and economic security. For example, efforts are underway with regard to developing a regional system for tsunami early

warning and mitigation. An Intergovernmental Coordinating Group (ICG) for the Tsunami Early Warning and Mitigation System in the Northeastern Atlantic, the Mediterranean and Connected Seas (ICG/NEAMTWS) was established in 2005 under the aegis of the Intergovernmental Oceanographic Commission (IOC) of UNESCO. The ICG/NEAMTWS will work towards the formulation and operationalization of a multi-hazard early warning system for the North Eastern Atlantic, the Mediterranean and connected seas and will consist of four major components:

1. Hazard assessment, risk and modeling;
2. Seismic and geophysical measurements;
3. Sea-level measurements; and
4. Advisory, mitigation and public awareness.

The ICG is expected to formulate a complete plan of action by December 2006, including the implementation of trials for key components of the early warning system with the aim of having an initial operational system in place by December 2007 (IOC, 2006).

From Epistemic Communities to a Broader Set of Actors: The Mediterranean Commission on Sustainable Development

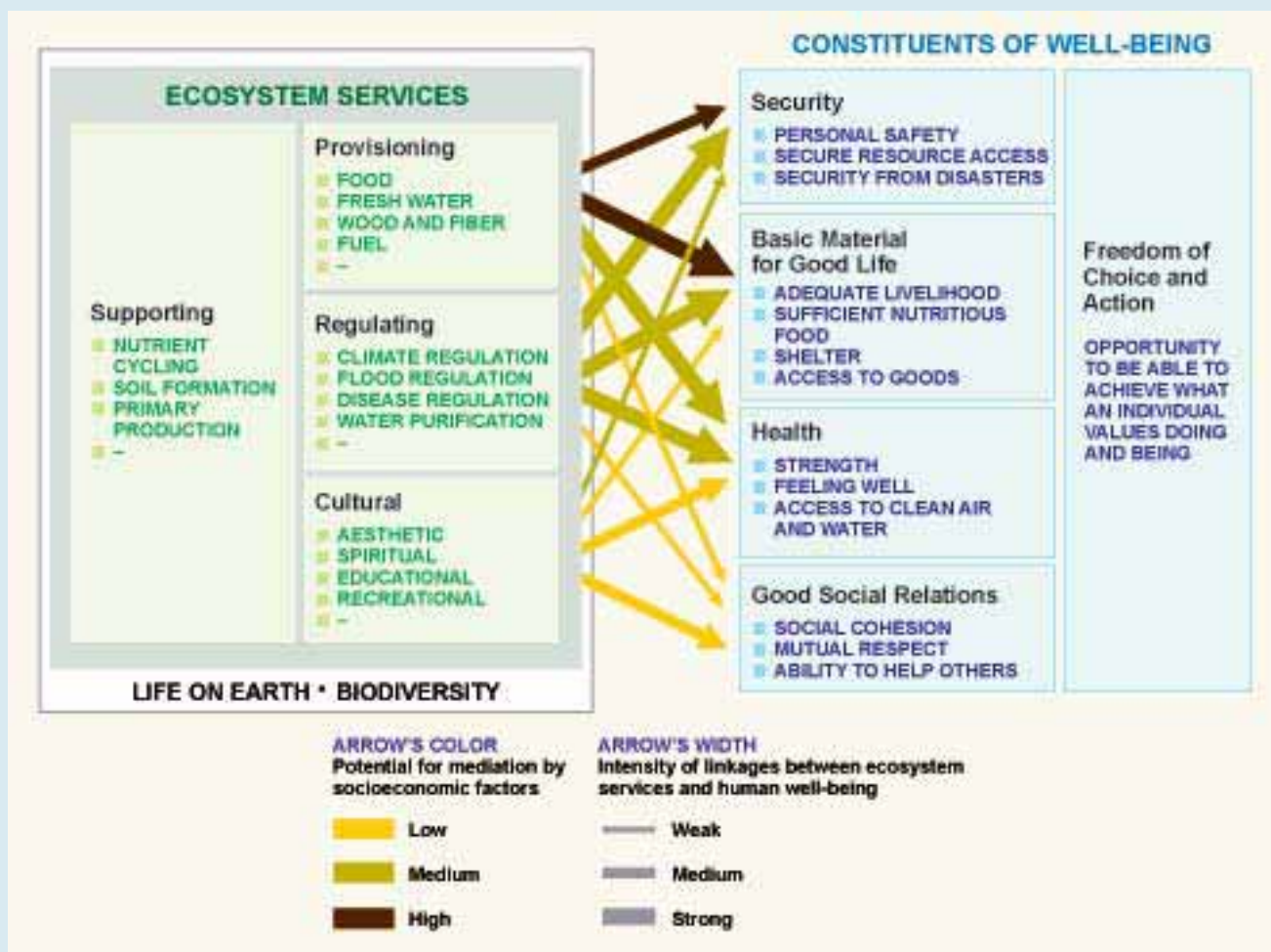
In a seminal study, Peter Haas (1989; 1992) emphasized the role of scientists and experts — epistemic communities — in shaping the

Table 1: Overview of Relevant International Agreements and the Status of Participation of Mediterranean Countries.*

COUNTRY	A	G	R	E	E	M	E	N	T
	Agreement for the Implementation 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	Convention on Biological Diversity (1992)	Convention on Wetlands (Ramsar, Iran, 1971)	UNESCO Convention on the Protection of the Underwater Cultural Heritage (2001)		United Nations Framework Convention on Climate Change (1992)		United Nations Convention to Combat Desertification (1992)	United Nations Convention on the Law of the Sea (1982)
ALBANIA	--	05/01/94 (A)	29/02/96 (R)	--		03/10/94 (R)		27/04/00 (R)	23/06/03 (R)
ALGERIA	--	13/06/92 (S); 14/08/95 (R)	04/03/84 (R)	--		13/06/92 (S); 09/06/93 (R)		14/10/94 (S); 22/05/96 (R)	11/06/96 (R)
BOSNIA AND HERZEGOVINA	--	26/08/02 (A)	01/03/92 (R)	--		07/09/00 (R)		26/08/02 (R)	12/01/94 (R)
CROATIA	--	11/06/92 (S); 07/10/96 (R)	25/06/91 (R)	01/12/04 (R)		11/06/92 (S); 08/04/96 (R)		15/10/94 (S); 06/10/00 (R)	05/04/95 (R)
CYPRUS	25/09/02 (R)	12/06/92 (S); 10/07/96 (R)	11/11/01 (R)	--		16/06/92 (S); 15/10/97 (R)		29/03/00 (R)	12/12/88 (R)
EGYPT	--	09/06/92 (S); 02/06/94 (R)	09/09/88 (R)	--		09/06/92 (S); 05/12/94 (R)		14/10/94 (S); 07/07/95 (R)	26/10/82 (R)
FRANCE	19/12/03 (R)	13/06/92 (S); 01/07/94 (R)	01/12/86 (R)	--		13/06/92 (S); 25/03/94 (R)		14/10/94 (S); 12/06/97 (R)	11/04/96 (R)
GREECE	19/12/03 (R)	12/06/92 (S); 04/08/94 (R)	21/12/75 (R)	--		12/06/92 (S); 04/08/94 (R)		14/10/94 (S); 05/05/97 (R)	21/07/95 (R)
ISRAEL	--	11/06/92 (S); 07/08/95 (R)	12/03/97 (R)	--		04/06/92 (S); 04/06/96 (R)		14/10/94 (S); 26/03/96 (R)	--
ITALY	19/12/03 (R)	05/06/92 (S); 15/04/94 (R)	14/04/77 (R)	--		05/06/92 (S); 15/04/94 (R)		14/10/94 (S); 23/06/97 (R)	13/01/95 (R)
LEBANON	--	12/06/92 (S); 15/12/94 (R)	16/08/99 (R)	--		12/06/92 (S); 15/12/94 (R)		14/10/94 (S); 16/05/96 (R)	05/01/95 (R)
LIBYA	--	29/06/92 (S); 12/07/01 (R)	05/08/00 (R)	23/06/05 (R)		--		15/10/94 (S); 22/07/96 (R)	--
MALTA	11/11/01 (R)	12/06/92 (S); 29/12/00 (R)	30/01/89 (R)	--		12/06/92 (S); 17/03/94 (R)		15/10/94 (S); 30/01/98 (R)	20/05/93 (R)
MONACO	09/06/99 (R)	11/06/92 (S); 20/11/92 (R)	20/12/97 (R)	--		11/06/92 (S); 24/11/92 (R)		05/03/99 (R); 15/10/94 (S);	20/03/96 (R)
MOROCCO	--	13/06/92 (S); 21/08/95 (R)	20/10/80 (R)	--		13/06/92 (S); 28/12/95 (R)		07/11/96 (R)	--
PALESTINIAN TERRITORIES	--	--	--	--		--		--	--
SERBIA AND MONTENEGRO	--	08/06/92 (S); 01/03/02 (R)	27/04/92 (R)	--		12/03/01 (R)		--	12/03/01 (R)
SLOVENIA	--	13/06/92 (S); 09/07/96 (R)	25/06/91 (R)	--		13/06/92 (S); 01/12/95 (R)		28/06/01 (R)	16/06/95 (R)
SPAIN	19/12/03 (R)	13/06/92 (S); 21/12/93 (R)	04/09/82 (R)	06/06/05 (R)		13/06/92 (S); 21/12/93 (R)		14/10/94 (S); 30/01/96 (R)	15/01/97 (R)
SYRIA	--	03/05/93 (S); 04/01/96 (R)	05/07/98 (R)	--		04/01/96 (R)		15/10/94 (S); 10/06/97 (R)	--
TUNISIA	--	13/06/92 (S); 15/07/93 (R)	24/03/81 (R)	--		13/06/92 (S); 15/07/93 (R)		14/10/94 (S); 11/10/95 (R)	24/04/85 (R)
TURKEY	--	11/06/92 (S); 14/02/97 (R)	13/11/94 (R)	--				14/10/94 (S); 31/03/98 (R)	--

*(dd/mm/yy; A = Accession; R = Ratification; S = Signature).

Box 2: Linkages between Ecosystem Services and Human Well-being.



Courtesy of the Millennium Ecosystem Assessment

Ecosystem services are crucial to the main constituencies of human well-being (basic material for a good life, health, good social relations, security and freedom of choice and action). But these services can be affected negatively by indirect drivers of change — demographic factors, socioeconomic and political factors (globalization, trade market, governance-related issues, international institutional and legal frameworks), technological and cultural factors (beliefs, consumption choices, traditional practices, etc.) — and direct drivers of change that affect the provision of ecosystem services, such as changes in local uses of space and resources, species introductions or removal, technological adaptation and use, external inputs such as biological control in production systems,

harvest and resources consumption and climate change.

Cooperative frameworks and programs should ultimately succeed in minimizing, preventing and controlling the adverse effects of indirect drivers of change on ecosystem services on which human well-being depends. In the specific case of the Mediterranean region, it would be important to formally assess how in its 30-year history such a cooperation has contributed to ensure equitable access to resources, security from disasters, adequate livelihood systems, sufficient food of an appropriate nutritional value, the environmental conditions that underpin hygiene and health and cohesion among Mediterranean countries.

The Mediterranean cooperation experience constitutes one of the models at which the international community can look and from which it can take inspiration, in order to replicate successful approaches.

environmental agenda for the Mediterranean. Acting as a transnational coalition, scientists and experts were not only able to direct the coastal states of the basin towards converging priorities and policies to respond to increasing marine pollution, through the creation of the regime built around the Barcelona Convention, but also to promote stronger and broader rules for pollution control and rules that could be adapted as new evidence supports the case. At the level of the MAP, the role of epistemic communities is best seen in the creation and operation of MED POL and the establishment of scientific and technical committees and national focal points. Established in 1975 and originally coordinated by UNEP with the cooperation of five UN agencies (FAO, WHO, WMO, IOC and IAEA), MED POL has been developed in three phases (Phase I, 1975–1980; Phase II, 1981–1995; and Phase III, 1996–2005) that show the evolution of the Programme from building a network of collaborating laboratories to the establishment of national monitoring programs and finally becoming a strategic tool for the implementation of relevant agreements. The Mediterranean

Protocol on Land-based Sources was amended in 1996 to include land-based activities and called for the development of national plans of action to reduce and eliminate land-based pollution. In 1997, a Strategic Action Programme to Address Pollution of the Mediterranean Sea from Land-based Activities (SAP) was adopted, identifying key sources of pollution, remedial actions, associated costs and possible targets and deadlines. The SAP identified 107 pollution hotspots and 51 sensitive areas needing special attention. Currently, 13 out of 22 parties have accepted the 1996 Amendments (UNEP/MAP, 2006). In recent years, scientific assessments have been used to bring the findings to the attention of policymakers. Perhaps the most renowned is the Intergovernmental Panel on Climate Change. Recently, a four-year scientific assessment of the status and trends of ecosystem services (the benefits that people derive from ecosystems) that are crucial for human well-being was completed by more than 1,350 scientists from 95 countries — the Millennium Ecosystem Assessment (MA).

Similar to the MA are a recent project funded by the Global Environment Facility that addresses the conservation of the Mediterranean large marine ecosystem and other measures for the conservation of wetlands and coastal and marine ecosystems and the building of country capacity. A Transboundary Diagnostic Analysis (TDA) conducted at the Mediterranean scale examines transboundary concerns and their root causes, with a view to helping set priorities for action.

When the Barcelona Convention system was redesigned in 1995, a need was felt to open the system to the participation of nongovernmental organizations (NGOs) and other components of civil society. A Mediterranean Commission on Sustainable Development (MCSDD) was created, composed of 37 members representing each of the 22 Contracting Parties to the Barcelona Convention as well as 15 rotating representatives from wider society (five each from local authorities, the business community and NGOs) that in principle have a mandate of two years. The MCSDD is intended to address broader issues of sustainable development not included in the MAP and the Barcelona Convention. It operates through working groups that provide recommendations to the Contracting Parties. So far, eight sets of recommendations on coastal management, managing water demand, indicators, tourism, information/awareness, industry, urban development and trade have been adopted and work is ongoing on

cooperation and financing and on local governance. As a result of the work of the MCSD, a Mediterranean Strategy for Sustainable Development (MSSD), which gives great importance to the participatory approach, has been prepared (UNEP/MAP, 2006).

Throughout the preparatory process of the MSSD, many technical reports were prepared and workshops organized; in particular, the Vision and Framework Orientations for Sustainable Development in the Mediterranean were prepared together with a series of Strategic Thematic Notes on each of the priority issues identified in the MSSD.

Outcomes and Challenges of Regional Ocean Governance and Cooperation

Table 1 shows that governance arrangements are significant in number and the participation in them by Mediterranean countries is high. Means to measure their implementation do exist, such as implementation indicators associated with national reporting under most of the Multilateral Environmental Agreements. More recently, the focus of assessments has been on the degree of acceptance and implementation of collective rules (e.g., Vallega, 1996), the comprehensiveness of cooperation in the field of security (Kullenberg, 2002) or on qualitative assessment of specific regional instruments, such as the Protocol on Land-based Sources

(e.g., Massoud, et al., 2003). Important information on the state of the environment and natural resources has been generated by the TDA, particularly on marine pollution and fisheries, and enhanced outlooks and long-term scenarios have recently been issued (Antipolis, 2005). A new emphasis has also been placed on prioritization of pollution issues for more focused cooperative actions (EEA, 2006).

Conclusion

Although the Mediterranean cooperation experience constitutes one of the models at which the international community can look and from which it can take inspiration, in

order to replicate successful approaches and avoid making the same errors in terms of modalities and content of cooperation programs and activities, there is a need to evaluate the Mediterranean experience on the basis of more integrated and holistic conceptual and methodological approaches. A few adjustments in the content and modalities of Mediterranean cooperation, coupled with a strengthened multicultural dialogue and scientific cooperation, will not only allow the region to adapt to the evolving European and global contexts (an important global target being represented by the Millennium Development Goals) but also to propel the Mediterranean as a leading model in regional cooperation. ■

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Introduction

The Coordinating Body on the Seas of East Asia (COBSEA) was formed in 1981 to provide overall policy coordination of the Action Plan for the Protection and Development of the Marine Environment and Coastal Areas of the East Asian Seas (EAS) Region or EAS Action Plan. As a policy coordinating body composed of member countries, COBSEA has the decisionmaking power to determine the content of the Action Plan, to review its progress and to approve its program of implementation.

The views expressed in this paper are those of the authors and do not necessarily reflect the views of the United Nations Environment Programme.

Coordinating Body on the Seas of East Asia (COBSEA): A Perspective



Photo by Karenne Tun

COBSEA was formed to address the accelerating degradation of the marine and coastal environment.

The key challenges that prompted the formation of COBSEA were a continuing degradation of marine environment and the political need for a coordinating body in the East Asian Seas region. When it was established, it was one of the first regional entities for the management of the marine and coastal environment in the East Asian Seas. However, over the years, other regional programs, projects and activities dealing with the marine environment developed

and expanded throughout the region.

At the 17th COBSEA Meeting in 2004, member countries called for the body's revitalization to more accurately address the current needs of the region. It was agreed that there was a need for wider regional coordination and co-operation to attend to the common priority needs in the region, i.e., transboundary issues, capacity development, habitat protection,

pollution management, policy development and public education.

The Regional Seas Programme

The Regional Seas Programme (RSP) was launched in 1974, initiated by the United Nations Environment Programme (UNEP) as an action-oriented program utilizing a comprehensive approach to combat environmental problems through the sustainable management of marine and coastal areas, in order to address the accelerating degradation of the marine and coastal environment. The first RSP was established in the Mediterranean in 1975.

Today more than 140 countries participate in 18 RSPs — 13 of which were established under the auspices of UNEP. Among these, six (including the East Asian Seas) are administered by UNEP .

Development of the East Asian Seas Action Plan

The development of the RSP for the East Asian Seas was initiated by five member countries of the Association of South East Asian Nations (ASEAN), namely Indonesia, Malaysia, Philippines, Singapore and Thailand. In early 1979, the feasibility of an Action Plan for East Asia was assessed and the first draft was prepared by UNEP.

As part of the preparatory process to assess the region's needs, numerous surveys, reviews, studies and meetings were initiated by UNEP in cooperation

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Map showing COBSEA Member Countries.

Collaboration

In the implementation of the action plan, consideration will be taken at all times of similar projects and programmes being undertaken within and outside the region by national or regional institutions funded by national, regional or international bodies. Every effort will be taken to collaborate with such entities to ensure complementing rather than duplication of efforts, and to benefit from each other's endeavors so that a fund of knowledge and experience is mutually built up for the East Asian Seas region.

Action Plan for the Protection and Sustainable Development of the Marine and Coastal Areas of the East Asian Region

with other entities, such as the Economic and Social Commission for Asia and the Pacific, Food and Agriculture Organization, United Nations Educational, Scientific and Cultural Organization, World Health Organization and the International Atomic Energy Agency, and the Member States, to determine the viability of having such an Action Plan.

In 1981, the Action Plan for the Protection and Development of the Marine Environment and Coastal Areas of the East Asian Region was adopted at an intergovernmental meeting (UNEP, 1981a). At the next intergovernmental meeting, the EAS program activities were reviewed, the Coordinating Body on the Seas of East Asia (COBSEA) was established to oversee the implementation of the Action Plan, a Trust Fund was established and UNEP was requested to function as the Secretariat of the Action Plan (UNEP, 1981b).

The EAS Action Plan provides a comprehensive strategy to protect the marine and coastal environment of the East Asian Seas region and to promote its sustainable development. It takes into consideration the environmental and socioeconomic challenges faced by the countries and promotes the health and well-being of present and future generations. The Action Plan encompasses "steps urgently needed to formulate and establish a scientific programme involving research, prevention and control of marine pollution and monitoring."

In 1994, the East Asian Seas Regional Coordinating Unit (EAS/RCU) was established as the secretariat for COBSEA with overall responsibility for the implementation of the program of work and resolutions, strategies and policies adopted by the member countries (UNEP, 1994). EAS/RCU extends its



Photo by Karenne Tun

The International Coral Reef Action Network and the International Coral Reef Initiative work towards the protection, preservation and management of reefs in the region.

cooperation to governments, other UN and non-UN agencies, donors and NGOs in carrying out its tasks and maintains good working relationships with these agencies.

In the same year, COBSEA adopted a revised Action Plan in line with Agenda 21 and the outcomes from the Rio Summit, and welcomed five new member countries — Australia, Cambodia, People's Republic of China, Republic of Korea and Vietnam (UNEP, 1994).

Financial Sustainability of the EAS Action Plan

The East Asian Seas Trust Fund became operational in 1982 (UNEP, 1981b). Upon the establishment of the Trust Fund, the participating countries decided that their levels of contribution would be on a voluntary basis. Since then, over 40 projects have been implemented — a few completely funded by the Trust Fund, with the majority partially funded by the UNEP Environment Fund. Project funding from external sources has also increased over time.

Historically, the financing of the EAS Action Plan has primarily been dependent on UNEP contributions. But shrinking donor contributions in the 1990s caused a decrease in financial support from UNEP, making COBSEA more dependent on the contributions by its member countries and external donors in the implementation of the activities under the Action Plan and the operations of the secretariat.

Major Accomplishments

COBSEA has a long tradition of working, in collaboration with other agencies and bodies, towards coastal and marine management in the East Asian Seas region, while also being part of the RSP and UNEP networks.

In the 1980s, when COBSEA was formed, the effects and extent of marine pollution were still not well documented. It was essential to provide more scientific information as basis for decisionmaking and initially, for the development of the EAS Action Plan. A large number of assessments were carried out regarding the extent of marine pollution from different sources, the impact of marine pollution on ecosystems and the financial importance of coastal and marine resources. Initially, COBSEA focused strongly on activities related to overcoming the impact of oil spills on the marine environment, strengthening monitoring efforts, contingency plans and enhancement of national and regional capacities in oil spill preparedness and response plans.

In the mid-1990s, COBSEA increased its focus on translating the gathered information into improved management for the coastal and marine environment. This included the Vision and Plan: A Systematic Approach and the development of the Regional Programme of Action for the Protection of the Marine Environment in the East Asian Seas from the Effects of Land-based

Activities and subsequent capacity building.

In order to improve the protection, preservation and management of coral reefs in the region, many activities have been carried out through the International Coral Reef Action Network and the International Coral Reef Initiative, including various awareness building, monitoring and educational programs. Capacity building programs based on the sharing of experiences of demonstration sites with a history of good management practices have enabled countries to fill important capacity gaps. Awareness building through the promotion of environmental journalism, translation of training and monitoring materials into local languages and enhanced networking have ensured that information on coral reefs reaches more people in the region. New opportunities which have emerged through the alternative livelihoods from these projects have helped reduce the degradation of corals caused by the effects of poverty and lack of income opportunities in some of the countries (UNEP, 2002).

Although coral reef monitoring programs implemented in the last couple of years may not have reversed the condition of the coral reefs to prior levels, they have arrested the rate of decline at the demonstration sites of marine protected areas. Continued and strengthened management will further improve the situation.

The 16th COBSEA Meeting in 2001 supported measures on strengthening cooperation with the ASEAN Working Group on Coastal and Marine Environment (AWGCME). The outcome of the arrangement was the 2002 adoption of ASEAN Marine Water Quality Criteria and the ASEAN Criteria for National Marine Protected Areas and Marine Heritage Areas, which demonstrated successful collaboration between two complementary regional programs on coastal and marine environment.

One project that stands out as a major achievement is the EAS/RCU-initiated UNEP/GEF Project, entitled "Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand" (SCS), that became operational in 2002. The overall goals of this project were: to create an environment, at the regional level, in which collaboration and partnership (between all stakeholders and at all levels) in addressing the environmental problems of the South China Sea is fostered and encouraged; and to enhance the capacity of the participating governments to integrate environmental considerations into national development planning. The planning for the project involved national evaluations of water-related environmental issues and problems, development of a transboundary diagnostic analysis and a framework strategic action program.

During the course of project implementation, extensive information and data was generated

which have been useful in planning the countries' coastal and environmental management programs. Subsequent inter-country sharing of experiences, expertise and knowledge has facilitated the identification and overcoming of similar problems in the region (UNEP, 2000a). The success of the project can be attributed to the well-designed management framework that clearly separates the scientific and technical discussions from that involving policy. Lessons learned from the model are applicable elsewhere for the successful implementation of projects.

Through trainings, workshops and seminars implemented by EAS/RCU, COBSEA continues to contribute to the capacity building of member governments and increase public awareness on marine environmental issues. Networking among policymakers and experts of countries in the region has also been enhanced through joint participation in these events and in project planning and implementation.

A recent initiative of the secretariat, strongly supported by the Swedish International Development Agency, led to and encompasses COBSEA's revitalization in order to better respond to the current needs of the region based on the outcomes of the 17th COBSEA Meeting.

Conclusion

COBSEA reassessed its position and importance as an

intergovernmental body in 2003, prompted by decreasing funding support from the UNEP Environment Fund, the inadequate level of contribution from member countries, and the changing needs of the region. At the 17th COBSEA Meeting, the recommendations from a study on COBSEA's future resulted in the need to realign its strategies. Based on the recommendations for COBSEA to define its priority areas, strengthen collaborative arrangements and consider its geographical focus, a new strategic direction for the body's revitalization was developed, thereby helping COBSEA regain its original position as one of the vital intergovernmental bodies in the region involved in the protection of the marine and coastal environment (UNEP, 2004).

Since the formation of COBSEA more than two decades ago, the awareness of marine environmental issues has increased at both government and public levels in the region, and the management of the coastal and marine environment has been given increased priority. As a result, a growing number of projects and programs have been initiated to improve coastal and marine management or to remediate coastal and marine environmental problems producing valuable project outcomes.

However, the experiences gained, in terms of lessons learned, best practices and data and

information collection can be easily overlooked at both national and regional levels, often because of lack of coordination within the region and the countries.

At the same time, the COBSEA member countries are signatory states to many important Multilateral Environmental Agreements (MEAs) that are related to the coastal and marine environment. The effective implementation of these MEAs puts increased demands on capacities, resources, availability of data and information and national coordination.

It is envisaged that, through support from its member countries, COBSEA will, as part of its new strategic direction, play an increasingly important part in improving data and information exchange in the region, strengthening regional coordination, ensuring that important project outcomes are synthesized and effectively used and assisting the member countries in building their national marine environment policies, while effectively implementing coastal and marine-related MEAs. The development of a regional database has been initiated in order to collect information on regional activities and the state of the marine environment among COBSEA member countries. Opportunities for collaboration and information exchange with regional programs/projects are currently being explored by COBSEA in order for the member countries to gain the maximum

benefits from their involvement in regional cooperation.

COBSEA as an intergovernmental body derives its direction from member countries that also determine its policies. At the 18th Meeting of COBSEA, the member countries identified priority areas in line with its new strategic direction. Initially focusing on information management, capacity building and project development within transboundary issues, habitat protection, pollution management, policy development,

public education and emerging issues, COBSEA will continue to strengthen its relationship with other programs and bodies in the region such as Partnerships in Environmental Management for the Seas of East Asia, SCS, AWGCME, APEC Marine Resource Conservation Working Group, APEC Fisheries Working Group and Northwest Pacific Action Plan, while providing support to its member countries in addressing the most pressing marine environment issues at national, regional and global levels (UNEP, 2006). ■

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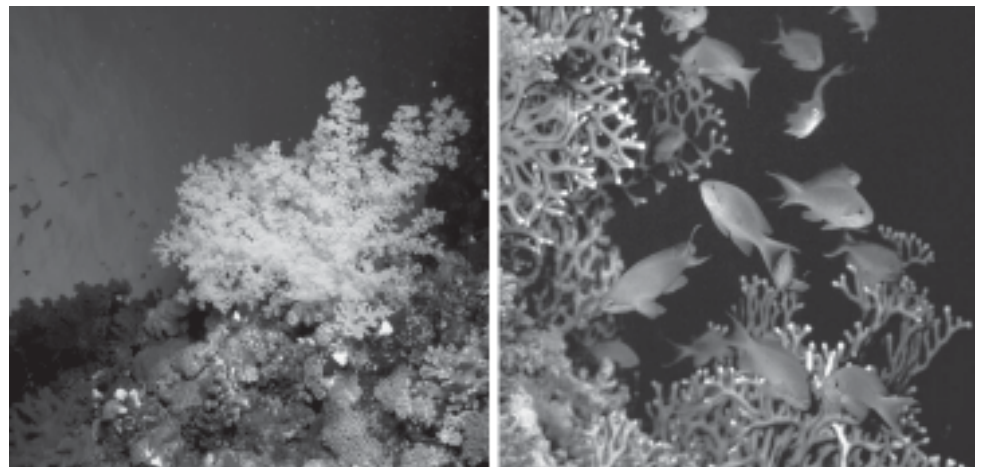
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Introduction

The Red Sea and Gulf of Aden (RSGA) have always been carriageways for travel and commerce, from the olden times when old wooden vessels were used to bring incense from South Arabia and spices from India until today when modern ships and tankers carry oil and other cargo across the region.

The Red Sea is partially isolated from the Indian Ocean. It is located in an arid, tropical zone with sparse and varied rainfall. There are no permanent inflowing coastal rivers or streams, only brief torrents during flashfloods in winter; hence, temperature and salinity are relatively high. Unlike the Gulf of Aden, there is no upwelling in the Red Sea, and this influences the concentration of important mineral nutrients (especially nitrate and phosphate) in seawater and also explains the abundance of coral reefs in the area.

The PERSGA Strategic Action Programme: Addressing Environmental Issues and Challenges in the Red Sea and Gulf of Aden



Soft Coral, and Fire Coral and *Anthias* Fish in the Red Sea and Gulf of Aden.

The most significant ecological resources found in the region are: seagrasses that provide food for green turtles, dugongs and a variety of invertebrates and fishes; mangroves that support much marine life and

contribute to the significant increase in local fisheries; and coral reefs that serve as shelter, source of food, breeding and nursery areas for large communities of marine organisms and as tourist attractions.

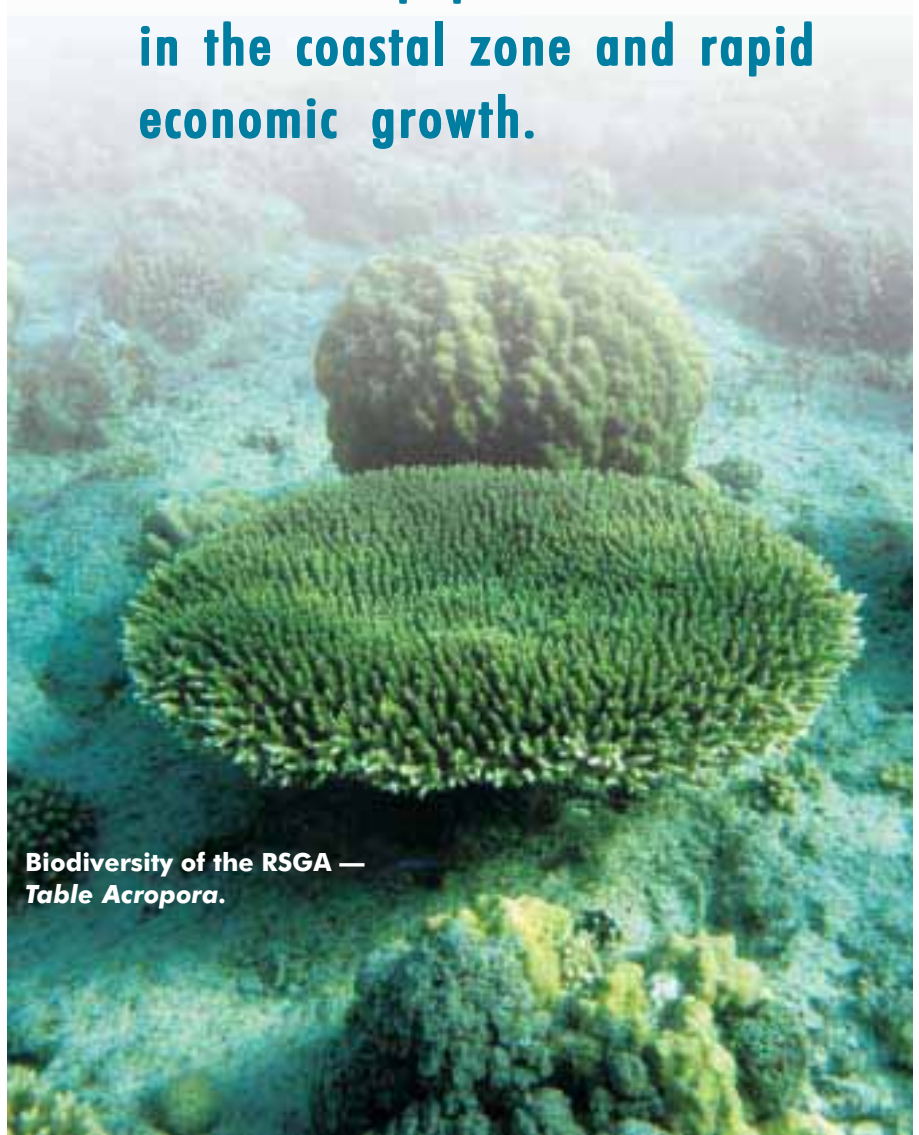
Environmental Threats

The most significant threats to the long-term stability of the marine ecosystem in the RSGA stem from population increase in the coastal zone and rapid economic growth. These factors have impacted greatly on the coastal and marine environment of the RSGA and have brought about coral reef destruction, the decline of mangroves and threats to the turtle population. Fisheries issues (in particular, overfishing and the resulting depletion of valuable fisheries resources), pollution pressures, and physical alteration and destruction of habitats (resulting from dredging and filling operations associated with urban expansion and the increase in tourist visits and industrial developments) have also surfaced because of rapid development. These pressures pose complex challenges to the management and conservation of the unique environments of the RSGA and therefore require urgent attention.

Need for a Regional Mechanism to Address Development

To address the challenges facing the RSGA, the Arab League Educational, Cultural and Scientific Organization (ALECSO) initiated a marine research program in the 1970s. This paved the way for the adoption of the Jeddah Declaration in 1976 and the establishment of the Programme for the Environment of the Red Sea and Gulf of Aden (PERSGA).

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**Biodiversity of the RSGA —
Table Acropora.**



Sea urchin.



Nudibranchs.

To address the challenges facing the RSGA, the Arab League Educational, Cultural and Scientific Organization (ALECSO) initiated a marine research program in the 1970s. This paved the way for the adoption of the Jeddah Declaration in 1976 and the establishment of the Programme for the Environment of the Red Sea and Gulf of Aden (PERSGA).

To further strengthen the commitment and initiatives for the protection of the marine environment of the region, the Regional Convention for the Conservation of the Environment of the Red Sea and Gulf of Aden (also known as the the Jeddah Convention) was signed by the PERSGA member countries in 1982. This was followed by the establishment of the Regional Organization for the Conservation of the Environment of the Red Sea and Gulf of Aden, likewise called PERSGA, in 1995. This intergovernmental organization was established to develop and implement regional programs for the protection and conservation of the regional marine environment in the region. It is governed by a Council composed of environmental ministers in each of the seven PERSGA member states — Djibouti, Egypt, Jordan, the Kingdom of Saudi Arabia, Somalia, Sudan and Yemen. PERSGA's operations and

activities are mainly funded by its member states (unlike other specific regional programs that are assisted by grants provided by international donors) and carried in close cooperation with relevant international organizations.

Strategic Action Programme

One of the major endeavors of PERSGA has been the development and implementation of the Strategic Action Programme (SAP) for the RSGA, which aims to "safeguard the coastal and marine environments of the RSGA and ensure sustainable use of its resources." The first phase — executed with the support of the GEF and its implementing agencies (UNDP, UNEP and the World Bank), the Islamic Development Bank, and PERSGA member countries from 1999–2005 — targeted

complementary, preventive and curative actions, thereby responding to the key issues threatening the marine environment that were identified in the pre-SAP activities. In particular, the SAP focused on the following objective-based components:

- Institutional strengthening to facilitate regional cooperation;
- Sustainable use and management of living marine resources;
- Habitat and biodiversity conservation;
- Development of a regional network of marine protected areas;
- Support for integrated coastal zone management;
- Enhancement of public awareness and participation; and
- Monitoring and evaluation of programme impacts.

The implementation process was not free of challenges (discussed below), but PERSGA was able to resolve the issues effectively.

Increasing country involvement. During the first phase of the project (1999–2005), efforts were made to increase the involvement of member countries in project implementation. Although this task revealed to be more complex than expected, after the delivery of the SAP components and activities, PERSGA was able to mobilize country interest, secure the involvement of members in projects and encourage payment of countries' annual dues to PERSGA from 2004 onwards.

Balancing programme and financial/procurement responsibilities.

To allow countries to concentrate on deliverables rather than financial monitoring and procurement processes, the PERSGA Secretariat took on these duties. Although this imposed a considerable burden on PERSGA staff, the experience helped build the capacity of the organization and served to enable the Secretariat to manage operations and multi-country activities. PERSGA's capacity to deliver practical outcomes and oversee coastal and marine resources management in the RSGA

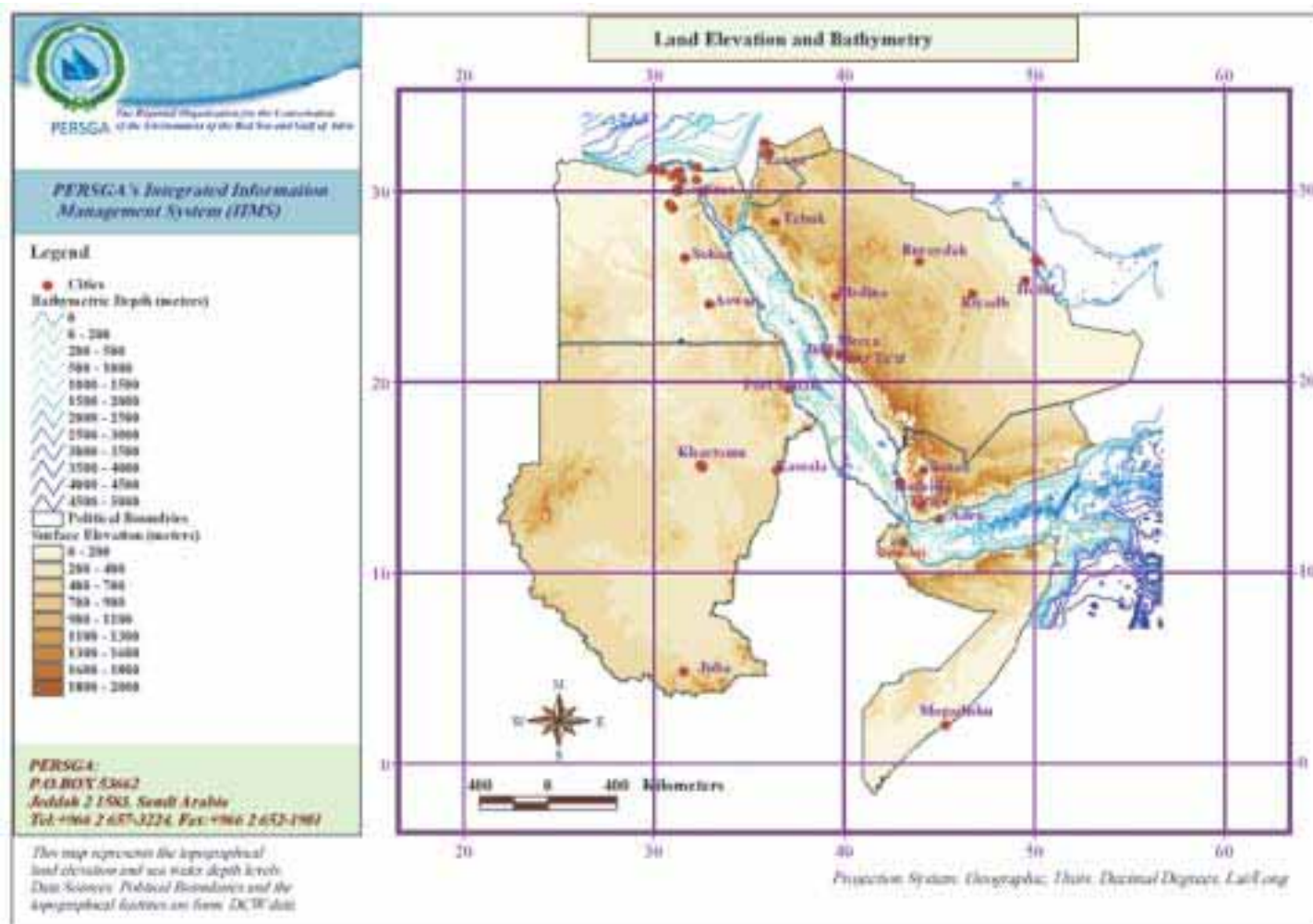
region was also put to test by the breadth, diversity and geographical spread of the activities; the application of adaptive management principles and integrated coastal zone management (ICZM) techniques, however, proved useful in addressing this issue.

As the region's framework for the conservation and management of the coastal and marine environment and resources, the implementation of the first phase of SAP resulted in various actions that addressed the transboundary nature and sustainable development of marine resources for the RSGA region as a whole.

It was also successful in promoting the concept of ICZM as a valuable tool for both small-scale pilot projects and country-wide projects. As a result, a number of ICZM demonstration activities have been implemented in the member countries with GEF funding and PERSGA support.

Other manifestations of change for the benefit of the coastal and marine environment of the RSGA in recent years are as follows:

- Operation of a new vessel traffic separation scheme in the southern Red Sea;



Land elevation and bathymetry of the PERSGA Region (PERSGA IIMS).

The region has also identified four new Marine Protected Areas and once management of these areas start, they will contribute significantly to the ecological well-being of the region due to their potential to serve as reservoirs of genetic stock and seeding grounds to support fishing off reefs in other areas and as sites for much-needed rural ecotourism development.

- Substantial rise in national capacity for fish stock assessment, data collection and analysis, and regionwide collection of essential baseline information;
- Establishment of two training facilities and a reference collection center;
- Recognition and acceptance of the need for a regional fisheries body;
- Capacity of the region's countries to carry out their own biodiversity and habitat studies, prepare species lists and monitor environmental changes without the need for external international assistance;
- Collection of a robust and substantial body of data — against which future data can be compared to detect and measure changes that might occur due to natural events or human interference;
- Establishment of the Regional Marine Emergency Mutual Aid Center (MEMAC) in Hurghada, Egypt, to coordinate activities in the event of oil spills; and
- Signing of a Protocol Concerning the Conservation of Biological Diversity and the Establishment of Protected Areas and a Protocol on the Protection of the Marine Environment from Land-based Sources of Pollution in the RSGA by Plenipotentiaries.

Undoubtedly, a great deal of progress has been made in the region, and much of it may be attributed to the focus and depth



PERSGA undertakes capacity-building activities such as training workshops on Environmental Impact Assessment, where trainees also visit a wastewater treatment plant.

provided by each SAP component's logical framework. The implementation of the four Regional Action Plans is the next crucial stage in the conservation of the key habitats and species of the region. The region has also identified four new Marine Protected Areas, and once management of these areas start, they will contribute significantly to the ecological well-being of the region due to their potential to serve as reservoirs of genetic stock and seeding grounds to support fishing off reefs in other areas and as sites for much-needed rural ecotourism development.

Current Endeavors and Future Prospects: Preparations for the Second Phase of SAP and the Framework of Action for 2006–2010

Today, more people are aware of PERSGA and its activities. This is a testimony to the increased exposure of the organization at national, regional and international levels — a direct consequence of the activities carried out through the SAP. PERSGA has played an active role in promoting regional cooperation and providing support to national environmental plans through meetings, surveys, environmental assessments, legal developments and training workshops.

Building on its experiences and achievements, the region is now in a position to seize new opportunities



A Training Workshop on Environmental Impact Assessment in March 2006.

presented through the SAP to develop and implement sound and sustainable management policies. With the commitment and support of member countries, PERSGA is ready to take a leadership role in the coordination of regional conservation initiatives for the Red Sea and Gulf of Aden, as was envisaged in the Jeddah Convention. The organization is now seeking new opportunities to engage with partners to meet the long-term challenges that face the marine and coastal environment.

After the completion of the GEF-funded SAP project, PERSGA undertook three major actions:

- **Improvement of the organizational structure and manual** – PERSGA contracted the Arab Administrative Development Organization (ARADO) to develop a new structure along with a new organizational manual. In line with this, the Regional Shared Vision and Confidence Building Programme was launched and a

brainstorming retreat was held to gain fresh momentum and provide feedback for incorporation into the work being done by ARADO.

- **Establishment of a new organizational culture** – Following the completion of the SAP, PERSGA faced a shortage of technical staff. Having a Secretariat — however small — staffed with qualified, competent and highly motivated personnel with recognized interpersonal skills is essential in the success of a regional program. Keeping this in mind, new staff were hired, based on a transparent and impartial recruitment process. Currently, all PERSGA Member States are represented within the PERSGA Secretariat.
- **Preparation of the Framework of Action 2006–2010** – Aiming to build on the achievements and lessons learned from the first phase of

By building on the experiences and lessons learned, PERSGA is optimistic that the new phase of SAP implementation will further enhance and strengthen marine management in the Red Sea and Gulf of Aden region.

SAP, PERSGA developed an Operational Framework of Action for 2006–2010. This Framework seeks to improve the sustainable management and use of the RSGA's coastal and marine resources to reduce environmental threats, and to improve livelihoods of participating coastal communities, institutional capacity, and legal and financial arrangements.

In its second phase, PERSGA intends to establish itself as a world center of excellence in coastal and marine management. To create a sound foundation of structures and systems that can efficiently build regional capacity, promote local on-the-ground initiatives and transfer lessons learned across the region will be the foremost priority. This will form the basis for sustainable development and ensure the integration of environmental and socioeconomic aspects.

These initiatives will be further strengthened with the

establishment of partnership activities with other regional and international entities, e.g.:

- Formulation and implementation of the Regional Programme of Action for the Prevention of Pollution from Land-based Activities in cooperation with UNEP;
- Implementation of a program on Persistent Organic Pollutants in partnership with UNIDO and funded by GEF as a medium-sized project over two years;
- Implementation of the GloBallast Partnership Project in cooperation with IMO; and
- Further implementation of the Regional Environmental Monitoring Programme.

Conclusion

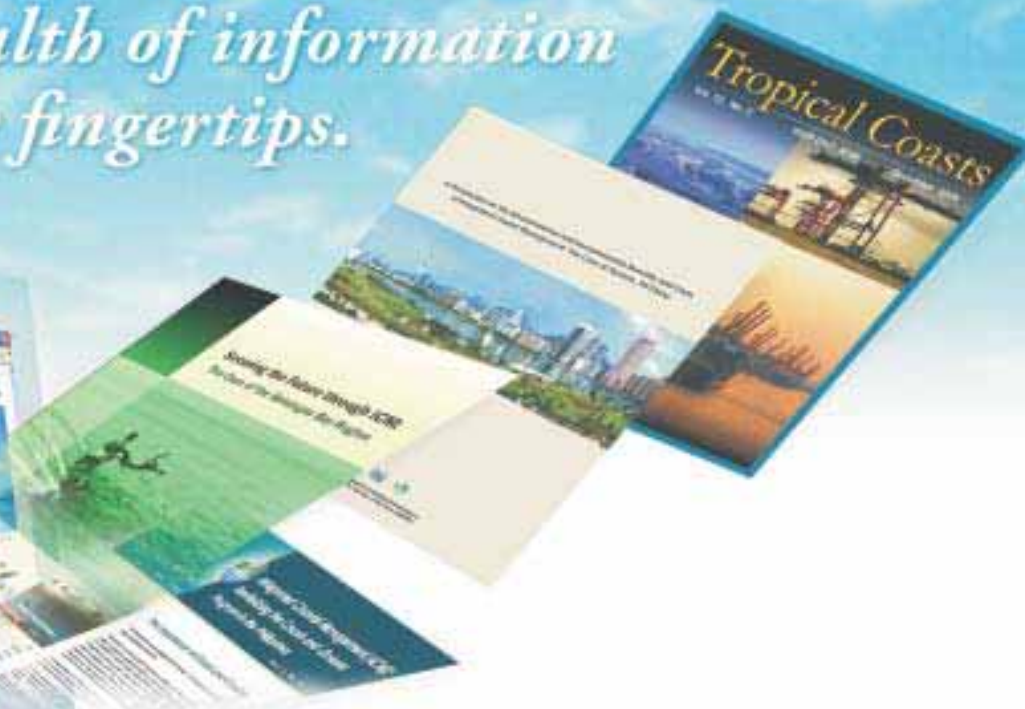
The SAP has contributed immensely in shaping PERSGA as an effective organization. The experience gained over the years

has increased PERSGA's ability to perform its duties and mandates under the Jeddah Convention and other international conventions related to the protection and conservation of the marine environment in the Red Sea and Gulf of Aden. The breadth, diversity and geographical scope of the first phase of SAP activities tested and stretched the capacity of PERSGA to deliver practical outcomes and oversee the Natural Resource Management Program and Integrated Coastal Zone Management in the RSGA. By building on the experiences and lessons learned from the first phase, PERSGA is optimistic that the new phase of SAP implementation will further enhance and strengthen marine management in the Red Sea and Gulf of Aden region. ■

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opportunities and events in the
East Asian Seas region.**



eas congress 2006

The annual congress will share our best practices and wisdom as provided by various national, regional and international organizations (United Nations agencies). The congress will discuss policy issues, present and future, related to the East Asian Seas region, in line with the goals of the congress – "Coastal, Coastal, Sustainable".



e-updates

PEMSEA produces a 1000+ page newsletter (issued by the Secretariat) on a quarterly basis. The newsletter is available in English, Indonesian, Vietnamese and Thai. It provides a comprehensive overview of the region's environmental and development issues.

environmental news

Indonesia: Invasive Species, Deep Seawater Wasting
INDONESIA - An unknown vertebrate about four kilometers off the coast of Sumatra, has officials said its strength was moderate and there was no risk of a tsunami.
Headlines
Japan: Water Pollution Concerns
TOKYO - Japan has drawn up an action plan to speed up efforts to develop the next generation of more environmentally friendly vehicles and batteries to help reduce air pollution.
Headlines
Malaysia: Sustainable Forestry
KUALA LUMPUR - A year-long study has found that the use of forest products from logging in Sarawak is covering about 3,000 kilometers of major highways in a bid to combat the increasing air pollution in the country.

eas youth forum

Co-organized by PEMSEA and The United Nations Development Centre (UNDC), the EAS Youth Forum is a venue for young people in the region to come together and share experiences, and discuss, knowledge and ideas on improving coastal and ocean management.



Visit

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Background

The Wider Caribbean — comprised of the Gulf of Mexico, Caribbean Sea and adjacent areas of the Atlantic — is a fascinating region, characterized by the diversity of races, languages, political status (independent/ associated states, colonies, overseas territories/departments) and levels of economic development among its countries, island states and territories.

In the past, it was an important crossroad from the old world to the new, and as such, most of the region's cultures, traditions, political and legal systems were inherited from former colonial powers. Today, the Caribbean is still a crossroad between north and south, the Atlantic and the Pacific, and poverty and desperation in developing countries and great opportunities in the developed world. It is globally significant for maritime transport and known as a world-class tourist and cruise destination, a valuable trade and energy production area (offshore oil and gas), and a vital source of income. Ironically, however, the region is also known for being a safe haven for sub-standard shipping and flags of convenience, drug trafficking and illegal immigration.

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The Wider Caribbean: A Sea of Diversity and Vulnerability



The Cartagena Tourist Beach in the Caribbean.

Home to around eight percent of the world's coral reefs and the world's second longest barrier reef, the Caribbean is a global biodiversity "hotspot" which has a relatively large number of endemic plants and animals, but at the same time provides habitat and nesting sites for migratory marine mammals, turtles and avian species. The principal coastal ecosystems in the region are wetlands and tidal flats, sandy and rocky beaches, coral reefs, seagrass beds, mangroves and offshore islets.

The smaller national economies in the Wider Caribbean are highly undiversified and dependent on the service sector, so the sun, water and coast are the bread and butter for many countries in the region. The contributions of marine and coastal assets to the Caribbean economies are therefore fundamental, and it would be shortsighted not to realize the importance of well-managed coastal and marine resources and assign appropriate attention to these issues.

Vulnerable Coastlines and Economies

A significant part of the Wider Caribbean, in particular the smaller island states, can be considered coastal zones due to their small land masses and large exclusive economic zones. Because coastlines often provide greater economic opportunities, these areas have become increasingly urbanized, attracting both short-term visitors and developers for second homes or permanent residences.

The growing pressure on the coastal areas of the Caribbean due to population density, coastal land development and other man-induced factors, combined with poorly-planned development (including unmanaged growth in tourism), untreated industrial/urban effluents, inappropriate agricultural practices, ship-generated pollution, non-sustainable exploitation of natural resources and unsustainable fishing have resulted in:

- Habitat alteration, degradation and destruction;
- Direct loss and/or change to biodiversity;
- Changes in water quality; and
- Increased erosion and changed sedimentation processes.

These have heightened the vulnerability of the region to natural disasters (e.g., hurricanes, earthquakes, volcanic eruptions and tsunamis).

Caribbean countries have long recognized that cooperation between states is imperative to address the underlying root causes of major threats to the marine and coastal environment.

Every year, the Wider Caribbean states face death and the devastating socioeconomic impacts of natural hazard catastrophes, mainly hurricanes. During the Atlantic hurricane season, from June to November, an average of ten storms (six of them hurricanes) develop and threaten the region. The magnitude of the threats to human well-being and economies is clearly illustrated by the destruction amounting to \$27 billion (in the United States only) brought on by Hurricane Andrew in 1992; the disastrous flooding, loss of life (10,000 deaths) and \$6 billion in damages caused by Hurricane Mitch in 1998; the devastation of Grenada by Hurricane Ivan in 2004; and the destruction of a large part of New Orleans in the United States by Hurricane Katrina in 2005. Due to the small size of Caribbean economies, catastrophic events such as these generate losses which easily reach double or triple digits as percentage of GDP. For instance, the damages after Hurricane Mitch equaled 80 percent of the GDP in Honduras and 49 percent in Nicaragua, while Hurricane Ivan caused damages equal to 239 percent of Grenada's GDP.

Regional Cooperation in the Caribbean and the Implementation Deficit

Caribbean countries have long recognized that cooperation between states is imperative to address the underlying root causes of major threats to the marine and coastal environment. A range of regional cooperation arrangements (multilateral agreements, technical programs and projects, networks of organizations and other instruments) to address these issues have been established in the Wider Caribbean since the 1970s, spearheaded by the Caribbean Environmental Programme (Box 1) and international organizations, such as the United Nations Environment Programme (UNEP), Intergovernmental Oceanographic Commission, Economic Commission for Latin America and the Caribbean, Food and Agriculture Organization, International Maritime Organization and others. In addition, subregional cooperation schemes like the Caribbean Community and the Organization of Eastern Caribbean States have emerged because of the need to pool limited

Subregional cooperation schemes like the Caribbean Community and the Organization of Eastern Caribbean States have emerged because of the need to pool limited resources to address priority areas.

Box 1: Caribbean Environment Programme

The leading cooperation mechanism regarding marine and coastal environment in the region is the UNEP Regional Seas Programme, which has backstopped the development and implementation of the Caribbean Action Plan since 1981. The legal framework, the Cartagena Convention for the Protection and Development of the Marine Environment in the Wider Caribbean Region, was adopted in 1983, three protocols concerning Cooperation in Combating Oil Spills, Specially Protected Areas and Wildlife (SPAW), and Marine Pollution from Land-based Sources and Activities (LBS) have since been developed. The Caribbean Environment Programme (CEP) is supported by the Caribbean Trust Fund, where the 28 Parties contribute directly to the operation of the regional secretariat in Kingston, Jamaica, as well as to the activities implemented by the Convention. Implementation of the activities is done through four regional activity centers in Cuba, Curacao, Guadeloupe, and Trinidad and Tobago. Today, the main CEP programs are: Assessment and Management of Environmental Pollution; SPAW; Information Systems for the Management of Marine and Coastal Resources (CEPNET); and Education, Training and Awareness.



resources to address priority areas. Other intergovernmental processes (e.g., the work related to Small Island Developing States) have also boosted interregional cooperation on marine and coastal issues during the last decade.

While technical cooperation on marine environmental issues goes back to the 1970s, the countries in the region have only recently come together at the political level through the Association of Caribbean States (established in 1994). Political tension, maritime demarcation disputes, different levels of economic development, diversity in cultures and languages, and traditional bonds with former powers all slowed down the regionalization process, as well as efforts towards the sustainable use of the Wider Caribbean.

Despite this, some progress was made over the last few decades in promoting the sustainable management of marine and coastal resources through international cooperation — particularly with regard to assessments, capacity building, and institutional strengthening. However, few countries can claim to be even partially successful in addressing their respective coastal and marine challenges. Generally speaking, concrete actions to address the root causes of problems have not been achieved at the necessary pace. Further, most initiatives are still at the enabling stage (i.e., agreements, capacity building, strategies,

assessments), and achievements towards remediation have been sparse. As a result, all the major problems related to the degradation of coastal areas and the marine environment identified decades ago either still exist today or have become much worse.

The slow pace of sustainable development efforts in the Wider Caribbean may be attributed to the "Implementation Deficit," or the considerable disparity between far-reaching political goals and statements in regional/ international forums and concrete action at the national level to address shared challenges. This deficit is caused by the lack of capacity to move forward in achieving agreed upon goals due to the small marine/coastal constituency, lack of marine and coastal policy, low technical and scientific capability, lack of political will and limited financial resources of countries.

The implementation flaw can be seen at various levels, starting with the slow ratification process of international agreements. It took ten years to obtain the necessary nine ratifications for the SPAW Protocol to enter into force, while the 1999 LBS Protocol has only been ratified by two countries (Panama and Trinidad and Tobago). Because of this, implementing legislation for recent global and regional treaties has not been put in place, and national legislation remains outdated and



Poverty in the Caribbean coasts.



The need for solid waste management.

fragmented. Without forceful implementation at the national level, the ratification of global instruments means very little towards addressing the real problems and the sustainability of regional cooperation mechanisms could be at risk.

The limited capacity of national administrations is another serious problem. Government

agencies responsible for public works, wastewater, agriculture and industry have a very ad hoc relationship with those responsible for coastal, marine and fisheries management. The general crisis affecting the public sector in the region has resulted in the lack of a suitable institutional structure, deficient legislation, understaffing and lack of financial resources. Even with sufficient

Considering the enormous socioeconomic importance of coastal and marine resources for the Caribbean, efforts to address the sustainable use and development of shared assets must be further strengthened and given appropriate attention.



legislative and regulatory capacity in place, countries would have major difficulties in establishing control and enforcement mechanisms because of the lack of political will and resources, political interference and corruption.

Sustainable funding from local sources is also a major impediment. Despite agreeing upon over-ambitious work programs, the countries often have difficulties in complying with their own financial commitments to the Caribbean Trust Fund; in fact, majority of the Governments are not able to contribute regularly, and some have extremely high arrears. The implementation of priority actions frequently depends on external assistance, thereby increasing the

risk that countries take for granted that their marine and coastal protection activities will be funded through foreign assistance and that they will not give initiatives due attention at the national level.

Conclusion

In a region characterized by national economies highly dependent on vulnerable coastal areas, a large number of small countries with limited human and material resources, and big challenges in the field of marine and coastal management, cooperation between countries is imperative. Although the Wider Caribbean has been able to achieve improvements in assessments, capacity building,

institutional strengthening and other areas since the 1970s, political commitment to improved marine and coastal management at the national level, in terms of policy reforms, enforcement of legislation and budget allocations for investments in remediation, is still lacking. As a result, most problems related to the degradation of the region's marine and coastal environment that were identified decades ago remain or have even grown worse. Considering the enormous socioeconomic importance of coastal and marine resources for the Caribbean, efforts to address the sustainable use and development of shared assets must be further strengthened and given appropriate attention. ■

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NOWPAP

Introduction

The UNEP Regional Seas Programme (RSP), initiated in 1974, is a very good example of cooperation by neighboring countries to protect their shared marine and coastal environment. Under the RSP umbrella, there are now 13 Conventions and Action Plans and five independent partner programmes that cover the Arctic, Antarctic, Baltic and Caspian Seas and the North-East Atlantic. The Northwest Pacific Action Plan is a member of the RSP family and its geographical coverage is illustrated in Figure 1.

The Northwest Pacific Action Plan: Securing the Region's Sustainability for Future Generations



Figure 1. NOWPAP Geographical Coverage.

NOWPAP Establishment

After years of negotiation and preparatory meetings, the Action Plan for the Protection, Management and Development of the Marine and Coastal Environment of the Northwest Pacific Region, or NOWPAP, was adopted by Japan, the People's Republic of China,

the Republic of Korea and the Russian Federation in 1994. The overall goal of NOWPAP is the wise use, development and management of the coastal and marine environment so as to obtain the utmost long-term benefits for the human populations of the region, while securing the region's sustainability for future generations.'In order to facilitate

the achievement of this goal, several objectives were identified:

- To assess regional marine environmental conditions by coordinating and integrating monitoring and data-gathering systems on a regional basis;
- To collate and record environmental data and information to form a comprehensive database and information management system;
- To develop and adopt a harmonious approach towards integrated coastal and marine environmental planning in a pre-emptive, predictive and precautionary manner; and
- To develop and adopt a regional framework for collaboration in the management of contiguous bodies of water and cooperation in the protection of common resources, as well as in the prevention of coastal and marine pollution.

Five priority activities were also identified:

- Establishment of a comprehensive database and information management system;
- Survey of national environmental legislation, objectives, strategies and policies;
- Establishment of a collaborative, regional monitoring program;
- Development of effective measures for regional cooperation in marine pollution preparedness and response; and
- Establishment of Regional Activity Centers (RACs) and their networks.

In order to finance the implementation of these and other NOWPAP activities, the NOWPAP Trust Fund, administered by UNEP, was established in 1994 with an initial UNEP contribution. (Table 1 shows the milestones in NOWPAP history.) Since then, NOWPAP member states have contributed annually to the Fund. (The current total annual member contribution is \$15,000.)

NOWPAP Implementation

NOWPAP's decisionmaking body is the annual Intergovernmental Meeting (IGM), which is participated in by high-level government officials or National Focal Points from each member state and by associated

experts. At the Sixth NOWPAP IGM, the member states agreed in principle to establish a co-hosted NOWPAP Regional Coordinating Unit (RCU) in Japan and RO Korea to serve as nerve centers for directing and promoting NOWPAP activities and for implementing the members' decisions. The two RCUs function as one unit. RCU offices were inaugurated in November 2004 in Toyama, Japan, and in Busan, RO Korea, and by April 2005, both offices were fully staffed and operational. Four professional staff members from PR China, Japan, RO Korea and the Russian Federation, as well as support personnel from the host countries, were recruited by UNEP.

Table 1: NOWPAP History.

YEAR	EVENT
1994	1 st IGM (Seoul, RO Korea): adopted NOWPAP and three supporting Resolutions, including five priority projects
1999	4 th IGM (Beijing, PR China): agreed to establish four Regional Activity Centers (RAC)
2000	6 th IGM (Tokyo, Japan): agreed in principle to establish a co-hosted NOWPAP Regional Coordinating Unit (RCU) in Toyama, Japan, and Busan, RO Korea
2002	7 th IGM (Vladivostok, Russia): agreed on the detailed plan for the establishment of the RCU RAC activities initiated
2003	8 th IGM (Sanya, PR China): adopted the NOWPAP Regional Oil Spill Contingency Plan
2004	Establishment of the NOWPAP RCU Signing of the MOU on Regional Co-operation Regarding Preparedness and Response to Oil Spills
2005	10 th IGM (Toyama, Japan): approved new directions of work for RACs; expanded geographical coverage of the NOWPAP Oil Spill Contingency Plan; and approved the Marine Litter Activity (MALITA)

Ten years ago, the major concerns of NOWPAP member countries were coastal eutrophication, red tides, oil spills, pollutant discharges from industrial effluents and river runoff. In recent years, however, new environmental problems have emerged.

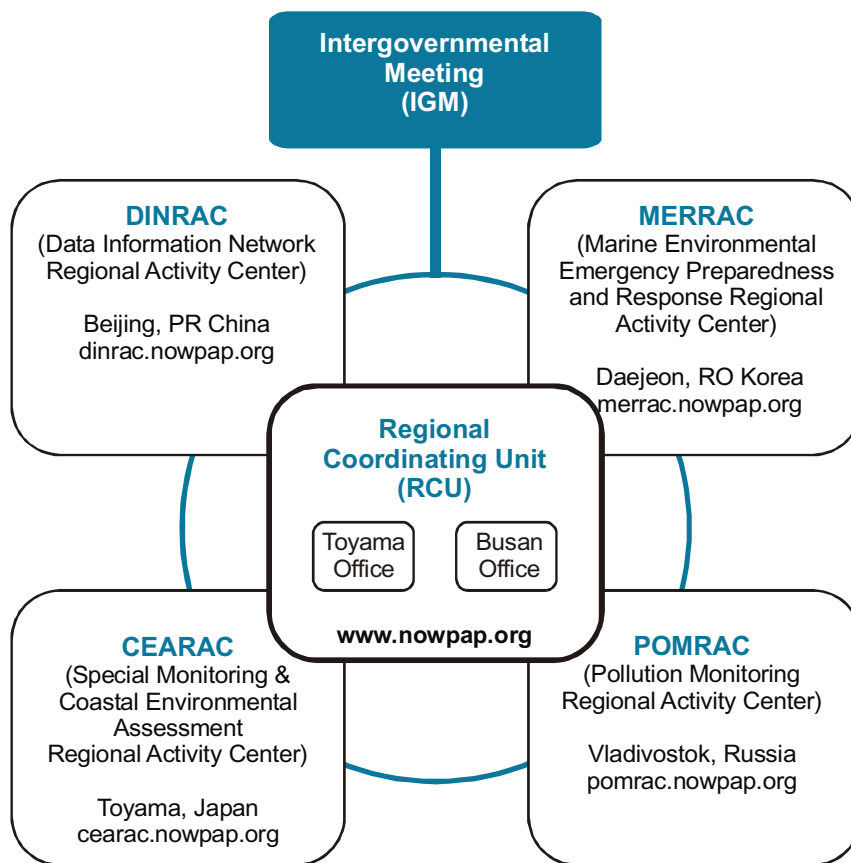


Figure 2. NOWPAP Organizational Structure.

To implement priority NOWPAP activities, four Regional Activity Centers (RACs), each hosted by a member country (Figure 2), were established from 2000–2002. RACs are responsible for carrying out specific projects according to their Terms of Reference. The budget and

work plan for RAC activities for each biennium is approved by the NOWPAP IGM, and projects are financed from the NOWPAP Trust Fund. Each RAC has an advisory body, the Focal Points Meeting, which consists of experts from each member state. Some RACs have

established Working Groups to cover specific issues, while others convene Expert Meetings. Recent developments and achievements of the RACs are as follows:

- Special Monitoring and Coastal Environmental Assessment Regional Activity Center (CEARAC), Toyama, Japan – National reports and integrated reports on harmful algal blooms (HABs) and on applications of remote sensing published in 2005 and widely distributed. New activities to be initiated by CEARAC, in close collaboration with other RACs, will be related to marine litter and land-based sources of pollution.
- Data and Information Network Regional Activity Center (DINRAC), Beijing, PR China – DINRAC is developing a regionwide data and information management system. Regional databases of institutions and individual experts on the coastal and marine environment in the region, as well as national reports on available data and information networks were completed in 2004. More information and links to available environmental data will be provided on the DINRAC website this year, and in the future, DINRAC will play the role of NOWPAP Clearing House.
- Marine Environmental Emergency Preparedness and Response Regional Activity

Center (MERRAC), Daejeon, RO Korea – Three regional reports on shoreline cleanup, environmental sensitivity mapping and dispersant applications were completed in 2005. The NOWPAP Regional Oil Spill Contingency Plan (RCP) and the associated MOU were signed by the ministers of the NOWPAP member countries between 2004 and 2005. RCP geographical coverage will be expanded in 2006 to include offshore oil and gas fields along the Sakhalin Island. This year, MERRAC will initiate new activities dealing with marine litter, spills of hazardous chemicals and other issues.

- Pollution Monitoring Regional Activity Centre (POMRAC), Vladivostok, the Russian Federation – National reports on atmospheric deposition of contaminants on river and direct inputs of contaminants to the marine and coastal environment were published in early 2006. The regional overview of contaminant inputs from land-based sources will contribute to the implementation of the UNEP Global Programme of Action (GPA) for the Protection of the Marine Environment from Land-based Activities.

Though NOWPAP is a relatively young Action Plan, it has achieved an important milestone in the establishment of its institutional infrastructure: IGM – RCU – RAC. This infrastructure, including a relatively

large network of experts working on different environmental issues, sets it apart from other existing mechanisms in the region, such as the Northeast Asian Conference on Environmental Cooperation (NEAC), the North-East Asia Subregional Programme for Environmental Cooperation (NEASPEC) and the Environment Congress for Asia and the Pacific (Eco Asia). In addition to annual meetings, NOWPAP also implements day-to-day interventions on the ground.

NOWPAP: Challenges and Future Directions

Ten years ago, the major concerns of NOWPAP member countries were coastal eutrophication, red tides, oil spills, pollutant discharges from industrial effluents and river

runoff. In recent years, however, new environmental problems have emerged. Issues on marine litter, invasions of alien species with ballast waters and spills of hazardous chemicals have become the top priority on the environmental agenda of the countries concerned and have posed a number of challenges for the NOWPAP RCU, particularly in relation to the need:

1. To obtain more funds to address the new environmental threats;
2. To make the NOWPAP Trust Fund sustainable; and
3. To increase environmental awareness.

Another challenge lies in the implementation of the Strategic Directions for the Regional Seas Programme, 2004–2007, which emphasizes: increasing the RSP contribution to sustainable



Marine litter on the shore of Oki Island, Japan.

Another challenge lies in the implementation of the "Strategic Directions for the Regional Seas Programme, 2004-2007," which emphasizes increasing the RSP contribution to sustainable development; enhancing visibility and increasing country ownership of the RSP; and introducing proactive, creative and innovative partnerships.

development; enhancing visibility and increasing country ownership of the RSP; and introducing proactive, creative and innovative partnerships.

The Tenth IGM held in Toyama in November 2005, addressed

most of the above-mentioned issues, by resolving to:

- Launch the Marine Litter Activity (MALITA) in the NOWPAP region;
- Enhance the geographical coverage of the NOWPAP Regional Oil Spill Contingency Plan to



Beach cleanup campaigns in Toyama, Japan.

- include the areas of oil and gas exploration along Sakhalin Island;
- Initiate new projects of the NOWPAP RACs, including, among others, Integrated Coastal Zone and River Basin Management, Hazardous Chemicals Spills and State of Marine Environment Reporting; and
- Support the PDF-B proposal to the Global Environmental Facility (GEF) on land-based sources of Persistent Toxic Substances.

These decisions are already reflected in the work plans and budgets of the NOWPAP RCU and RACs for the 2006-2007 biennium. As for the financial sustainability of the implementation of NOWPAP activities, member states have agreed in principle to increase their total annual contributions to meet the target amount of \$500,000. The RCU has developed a Resource Mobilization Strategy and has started to attract additional funds for the implementation of specific projects. The private sector and other potential donors are also being approached. It should be emphasized, however, that in the long run, only contributions from the member states can guarantee the financial sustainability of NOWPAP.

The RCU has also developed and is implementing its Public Awareness Strategy. There are several important components of the Strategy, including: the building of close collaborative relationships with potential partners in the region; development of the NOWPAP website;

production of NOWPAP promotional materials (brochures, posters, pens, calendars, etc.); participation in regional and local meetings and campaigns; and close contact with media. The activities of the NOWPAP RACs have certainly contributed substantially to public awareness building in the region and to increased NOWPAP visibility.

Increased country ownership of NOWPAP is reflected in several ways. First, each member state hosts one RAC and covers staff salaries, office rent and equipment costs. Japan and RO Korea support the two RCU offices in Toyama and Busan, respectively, including staff salaries, premises and equipment costs. Second, host countries also generously support the implementation of specific projects, e.g., those related to marine litter. For the new GEF project on persistent toxic substances (PDF-B), Japan and the RO Korea will also provide substantial co-financing.

Conclusion

The Northwest Pacific region has diverse ecosystems with spectacular marine life and commercially important fishing resources. However, the region is one of the most densely populated parts of the world, resulting in enormous pressures and demands on the environment.

There are numerous regional organizations, projects and programs working on marine environmental issues in the Asia-Pacific Region: GEF/UNDP/IMO Regional Programme on Partnerships in Environmental



Beach cleanup campaigns in Busan, RO Korea.

Management for the Seas of East Asia (PEMSEA); UNDP/GEF Project on the Yellow Sea Large Marine Ecosystem (SLME); North Pacific Marine Science Organization (PICES); UNESCO/IOC Sub-Commission for the Western Pacific (WESTPAC); and many others. NOWPAP recognizes that it cannot and should not work independently from those potential partners. Building partnerships with such international and nongovernmental organizations, projects and programs in the region will help avoid duplication of activities and will allow all concerned to share strengths, resources and experiences.

NOWPAP, as a relatively young organization, still has a lot to learn in order to work efficiently toward its goal. Therefore, partnerships are crucial to the success of the NOWPAP mission. Through close cooperation with the participating countries and other partners in the region, NOWPAP will be able to continuously confront

the many challenges that lie ahead and contribute to the achievement of the sustainable development and management of the coastal and marine environment in the region. ■

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Introduction

The Benguela Current ecosystem is situated along the coast of southwestern Africa, stretching from the east of the Cape of Good Hope in the south, northwards into Angolan waters, and encompassing the full extent of Namibia's marine environment (Figure 1). It is one of the four major coastal upwelling ecosystems of the world lying at the eastern boundaries of the oceans.

Like the Humboldt, California and Canary systems, the Benguela is an important center of marine biodiversity and marine food production. Its distinctive bathymetry, hydrography, chemistry and trophodynamics combine to make it one of the most productive ocean areas in the world, with a mean annual primary productivity of 1.25 kg of carbon/m/yr — about six times higher than that of the North Sea ecosystem (Brown et al, 1991). The Benguela's high level of primary productivity supports an important global reservoir of biodiversity and biomass of zooplankton, fish, sea birds and marine mammals, while nearshore and offshore sediments hold rich deposits of precious minerals (particularly diamonds), as well as oil and gas reserves.

The Integrated Management of the Benguela: A Case Study



The Benguela fits the Large Marine Ecosystems (LME) concept well; however, it is unique compared with other upwelling systems worldwide, in that it is bounded to the north and south by two major warm water systems — the equatorial eastern Atlantic and the Indian Ocean's Agulhas Current and retroflexion area (Shannon and Nelson, 1996). Much of the marine environment, particularly off Namibia and Angola, is naturally hypoxic or even anoxic at depth as a result of subsurface flow southwards from the tropical Atlantic (Bubnov, 1972; Chapman and Shannon, 1985; Hamukuaya, et al, 1998), and there are teleconnections between the Benguela and processes in the North Atlantic and Indo-Pacific Oceans, e.g., El Niño. The southern Benguela is also located at a major choke point in the Global Climate Conveyor Belt, where warm water is moved from the Pacific into the North Atlantic via the Indian Ocean. As a result, its marine and coastal environments are potentially extremely vulnerable to any future climate change or increasing variability in climate.

Resource Issues

The rich resources of the Benguela Current Large Marine Ecosystems (BCLME) are threatened by overfishing and changes in the environment. Stocks of commercially exploited fish (i.e., hake and pilchard/sardines) and crustacean fisheries (i.e., rock lobster) — important sources of food and livelihood for coastal communities in some areas of the BCLME — have declined considerably during the last 30 years (Figure 2).

Rapid development in the marine diamond mining and offshore oil and gas production industries has also caused detrimental effects on the coastal zone, water quality, the pelagic ecosystem and benthos of the area. Although information on the full impacts of these activities on the BCLME is largely unknown, one of the main concerns is the cumulative effects of intensive operations over a long period on the living marine resources of the BCLME.

Nearly all of the problems in the

BCLME, which require scientific investigation and management action, are common to Angola, Namibia and South Africa. This is because:

- Most of the region's important harvested resources are shared between the countries or move across national Exclusive Economic Zone (EEZ) boundaries at times;
- Mining impacts and pollution, while seemingly localized, are really generic issues, as are harmful algal blooms (HABs) and the loss of biodiversity;
- Environmental variability and change impact on the ecosystem as a whole causes poor predictability of its consequences; and
- Human and infrastructure capacity building in the region is a problem (with a strong gradient in marine science and technology) from south to north (Shannon and O'Toole, 2003).

The BLCME Programme

In order to respond to the environmental and sustainable development issues facing the region, the Global Environment Facility (GEF), through the United Nations Development Programme (UNDP), facilitated the development of a comprehensive BCLME proposal via a PDF Block B Grant in 1998. This process was lengthy and complex,

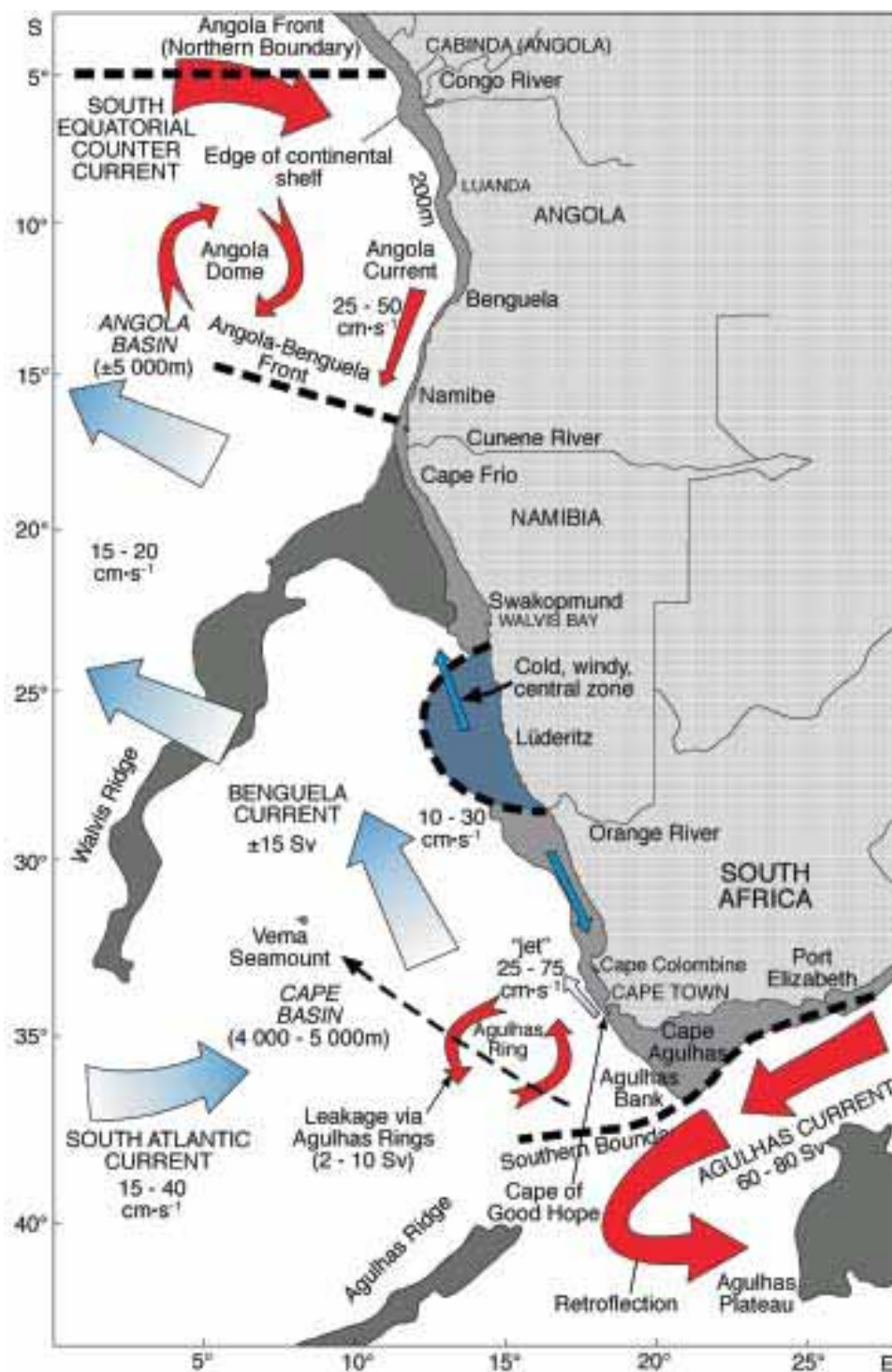


Figure 1. External and Internal Boundaries of the Benguela Current Large Marine Ecosystem, Bathymetric Features and Surface Currents.

involving a prescribed procedure and broad consultations with stakeholders through numerous meetings and two major regional workshops (O'Toole,

et al., 2001). Through these consultations, consensus was built and a comprehensive Transboundary Diagnostic Analysis (TDA) which

Rapid development in the marine diamond mining and offshore oil and gas production industries has also caused detrimental effects on the coastal zone, water quality, the pelagic ecosystem and benthos of the area.

prioritized the essential elements was undertaken, as per the following path: issues > problems > causes > impacts > uncertainties > socioeconomic consequences > transboundary consequences > activities/ solutions > priorities > costs (BCLME TDA, 1999).

The TDA identified seven major transboundary problems and their transboundary characteristics, as follows:

a. Decline in BCLME commercial fish

stocks and non-optimal harvesting of living resources;

- b. Uncertainty regarding ecosystem status and yield in a highly variable environment;
- c. Chronic and catastrophic deterioration in water quality;
- d. Habitat destruction and alteration, including modification of seabed and coastal zone and degradation of coastscapes;
- e. Loss of biotic integrity (changes in community

composition, species and diversity, introduction of alien species, etc.) and threat to biodiversity, endangered and vulnerable species;

- f. Inadequate capacity to monitor/assess ecosystem resources, environment and variability; and
- g. HABS.

The common root causes of these problems were the:

- Complexity of the ecosystem and high degree of variability (resources and environment);
- Inadequate human/ infrastructure capacity development and training;
- Poor legal framework at regional and national levels;
- Inadequate implementation and enforcement of available regulatory instruments;

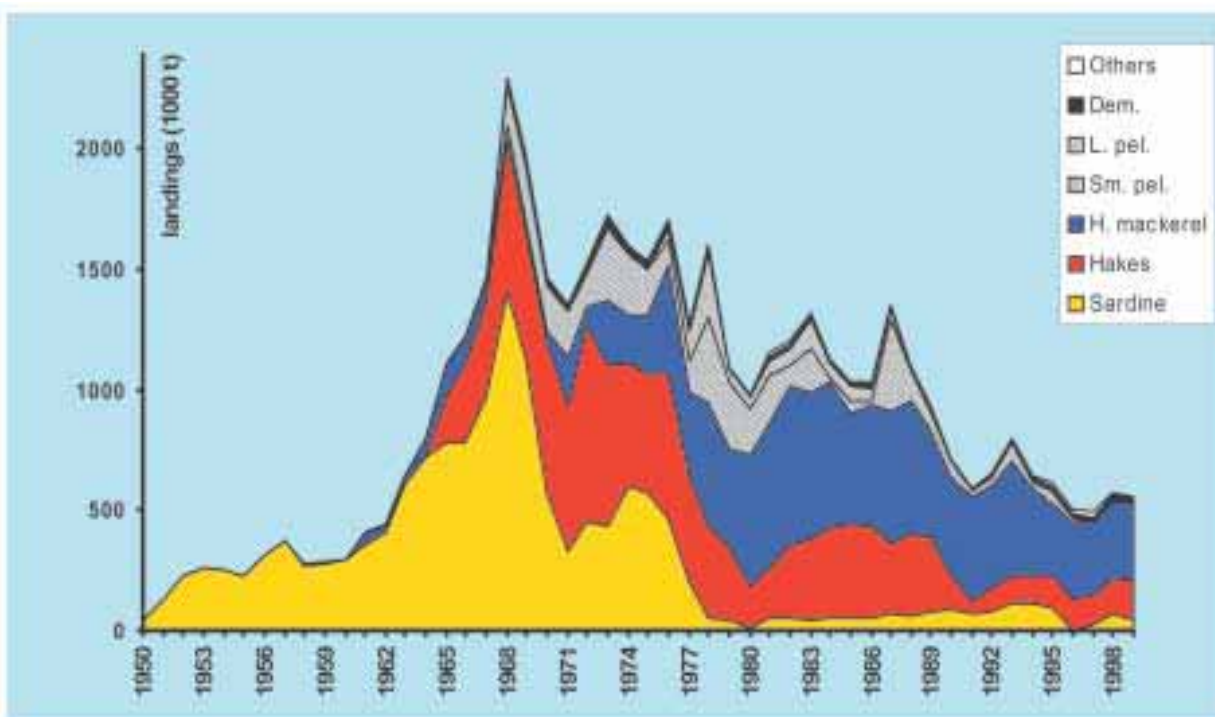


Figure 2. Trends in Fish Catches off Namibia, 1950–1998 (Hampton, et al., 1999).

- Inadequate planning at all levels;
- Insufficient public involvement; and
- Inadequate financial mechanisms and support.

A Strategic Action Programme (BCLME SAP, 1999), which attempted to address the above issues, was developed and signed by the three countries in 1999. The Project Brief and full implementation phase of the BCLME Programme was approved by the GEF Council in late 2001 and commenced in March 2002 following the completion and signing of the Project Document. The SAP spells out challenges/regional problems; establishes principles fundamental to integrated management in the region; specifies the nature, scope and timetable for deliverable management policy actions; details the institutional arrangements/structures necessary to ensure delivery; elaborates on wider cooperation (i.e., between the BCLME region and external institutions); specifies how the BCLME Programme will be financed during the start-up and implementation phases; and outlines approaches to ensure the long-term self-funding of the integrated management of the LME.

Highlighted in the SAP were the application of the precautionary principle, promotion of anticipatory actions (e.g., contingency planning), use of clean technology, and polluter pays principle, promotion of cooperation among Southern Africa Development Community (SADC) states, fostering of transparency and public participation within the BCLME

Recent studies (Cullinan, et al., 2004; Sumalia, et al., 2004) found that the net benefits from regional cooperative management of the BCLME within the framework of a regional commission are likely to be substantial, provided that there is strong political will, country support and co-financing with development partnerships, especially during the initial phase.

Programme and pursuit of a co-financing policy with industry and donor agencies.

The BCLME Programme was launched in March 2002 with the establishment of the Programme Coordination Unit (PCU), the three Activity Centers and the recruitment of staff. In addition, specialist task, consultative and advisory groups were established to formulate projects to address the issues and threats outlined in the SAP.

Some 80 projects dealing with Environmental Variability, Living Marine Resources and Biodiversity, Ecosystem Health and Pollution have been developed and contracted out mainly to clients in the region, including universities, government agencies and nongovernmental organizations (NGOs). They address transboundary fisheries, as well as

environmental and pollution issues shared by the three countries. Some of the key projects being implemented are related to the:

- Establishment of an ecosystem approach to fisheries management in the region;
- Evaluation and mitigation of the by-catch of seabirds, pelagic sharks and turtles in longline fisheries;
- Determination of the optimal harvesting strategies for hake and longline fisheries in Namibia and South Africa;
- Development of a responsible aquaculture policy for the region;
- Monitoring of the BCLME (using top predators as indicators of ecosystem change);
- Assessment of the cumulative effects of marine diamond mining on the BCLME;
- Development of a regional oil spill contingency plan;

The establishment of a Commission is seen as the first step in strengthening ecosystem-wide regional marine and coastal management and in overseeing the delivery of the key outputs of the SAP.

- Modeling of the cumulative effects of offshore petroleum exploration and production activities on the region's marine environment;
- Development of regional capacity for real-time observation and forecasting of HABs in the LME;
- Development of an early warning system for the Benguela El Niño, including warm and cold water and catastrophic low oxygen events; and
- Development of an annual State of the Environment and Ecosystem Report for the LME.

What Lies Ahead

A substantial coordinated effort will be required in the years ahead to address the overexploitation of the BCLME resources and meet the targets of the UN Millennium Development Goals (MDGs) and the World Summit for Sustainable Development (WSSD), as well as to implement the Ecosystem Approach to management. This will need a sustained effort, not only by the three countries bordering the Benguela, but also by all stakeholders, including the international community.

The three BCLME countries have committed themselves to cooperate in a range of ways in relation to the management of the marine environment through various binding treaties (e.g., UNCLOS, Reykjavik Declaration of 2001, SADC Protocol on Fisheries 2001) and through their support of other nonbinding international instruments (e.g., FAO Code of Conduct for Responsible Fishing) and the SAP. These obligations and commitments cover such issues as: information sharing and exchange in relation to marine living resources, the marine environment, aquaculture, conservation and scientific knowledge; confirmation and management of the aquatic environment; and regional and global cooperation in relation to fisheries, aquaculture, pollution and the conservation and management of marine living resources and the marine coastal environment. At present, the institutional structures for implementing these commitments are either non-existent or inadequate.

Recent studies (Cullinan, et al., 2004; Sumalia, et al., 2004) found that the net benefits from regional

cooperative management of the BCLME within the framework of a regional commission are likely to be substantial, provided that there is strong political will, country support and co-financing with development partnerships, especially during the initial phase. The results concluded that, to implement an ecosystem approach to the BCLME, it will be necessary to establish institutional structures for ongoing cooperation between the three BCLME countries, which at a minimum will deal with human activities that could potentially bring significant negative impacts on the Benguela Current ecosystem as a whole.

An economic case for taking an ecosystem approach to fisheries management relative to traditional fisheries management models was strongly made with recommendations to optimize domestic and regional benefits from regional cooperation in scientific investigations, joint stock assessment, enforcement and environmental monitoring.

The establishment of a Benguela Current Commission (BCC) was justified on several grounds, including the need for an appropriate institutional mechanism to implement the ecosystem approach and to fulfill existing international obligations and undertakings of the three BCLME countries. Such a structure would also help towards developing a better understanding of the BCLME, improve the management of human impacts, protect the

ecosystem for future generations, facilitate the building of regional science and technological capacity, and increase the benefits derived from shared living and nonliving marine resources.

Angola, Namibia and South Africa are currently in the final stages of negotiating the establishment of a BCC through an Interim Agreement. The structure of the BCC will consist of a Ministerial Conference, a Joint Management Board with country representatives and observers and three subcommittees (Living Marine Resources, Ecosystem Health, and Mines and Petroleum). The Commission will have a Secretariat comprising an Executive Secretary and an Ecosystem Coordinator with two administrative staff. An Ecosystem Advisory Committee linked to various Working Groups — i.e., fisheries, environment, mines and petroleum, ecosystem health and pollution, socioeconomics and governance — will report back to the Joint Management Board via the Secretariat. The working groups will coordinate the scientific research and monitoring activities in relation to the implementation of ecosystem-based management in the BCLME.

The BCC will focus on the implementation of an ecosystem-based management and in particular, cooperative management of shared fish stocks and the linkages between environmental factors and fluctuations in these populations. The establishment and operationalization of an early warning system, including

routine monitoring lines and an ecosystem information reporting mechanism, would also be part of any cooperative agreement.

The establishment of a Commission is seen as the first step in strengthening ecosystem-wide regional marine and coastal management and in overseeing the

delivery of the key outputs of the SAP. This process would need to continue and be further developed over the next few years into a more comprehensive agreement or convention through a sustained negotiation and review that would ultimately be supported by a sustainable funding mechanism by contributions from the countries themselves. ■

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Introduction

In recent decades, the world has witnessed an increased emphasis on coastal and ocean protection and development. Cognizant of the issues and significance of the coasts and oceans to sustainable development, many countries and regional sea areas around the world have entered into a number of agreements, conventions and institutional mechanisms as an expression of their political commitment to develop a common framework and standards for the management of the coastal and ocean environment.

Although most regional sea areas have forged binding instruments, in the South Asian Seas, Northwest Pacific and East Asian Seas, countries continue to rely on nonbinding agreements.¹ Both types of instruments have their share of advantages and disadvantages.

Regional Arrangement for the Implementation of the SDS-SEA: A Partnership Approach



Binding instruments are considered as embodying the highest form of commitment. While they are not prerequisites to the establishment of regional mechanisms, they are considered significant in that they provide the overall framework for actions undertaken by countries or regions. They are seen as more stable since they are obligatory, enforceable, and formulated with a long-term objective. However, forging binding agreements entails higher transaction costs and longer procedures — consultation and negotiation usually take years and even decades. Nonbinding instruments, on the other

hand, are considered simpler and more flexible; and, while they are not obligatory in nature, the participatory decisionmaking process and the commitments generated through consensus tend to produce an outcome that is morally binding in nature.² The flexibility of nonbinding agreements also provides more room for maneuver and "encourages learning and adaptation during the implementing phase" (Lowry, 2004). As such, some countries find nonbinding agreements more effective and suitable, particularly in addressing pressing/immediate concerns.

¹ Binding instruments are often in the form of treaties or conventions and defined by the 1969 Vienna Convention as "international agreement[s] concluded between States in written form and governed by international law, whether embodied in a single instrument or in two or more related instruments and whatever [their] particular designation." Nonbinding instruments, on the other hand, are agreements between or among states that do not have the force of law (Wells, 1996). They are often in the form of declarations, recommendations, resolutions, action plans and codes of conduct.

² Hildebrand, et. al., 2002, quoted by K. Lowry (2004).

In an effort to continuously enhance the management of the ocean environment, different strategies, methods and approaches have been explored and developed by various regional mechanisms and entities. One such approach, which is non-conventional yet, widely endorsed in environmental management, is the building of partnerships. Partnership makes cooperation and collaboration amongst diverse stakeholders possible and it promotes a paradigm shift in coastal and ocean management by providing a more open and flexible means of cooperation. Various partnership initiatives are already found at subnational levels; at the regional level, the East Asian Seas has opted to take the partnership approach.

The East Asian Seas Region

The East Asian Seas region is one of the few that is yet to forge a binding instrument on environmental management of the coastal or ocean areas. While the countries in the region are parties to various international instruments related to the management of coastal and marine areas, there is a broad range of practices in the implementation of international instruments in the region — some countries require preparatory measures before ratification/accession, while others ratify before taking any steps towards implementation — and this makes compliance difficult.

Partnership makes cooperation and collaboration amongst diverse stakeholders possible and it promotes a paradigm shift in coastal and ocean management by providing a more open and flexible means of cooperation. Various partnership initiatives are already found at subnational levels; at the regional level, the East Asian Seas has opted to take the partnership approach.

Another possible reason for not having regional conventions is the wide diversity among East Asian countries in almost every aspect — geographical, cultural and historical, sociopolitical and economic. The Association of Southeast Asian Nations (ASEAN), established in 1967 and grown from five countries then to the current ten, is still without a legal instrument; and yet the organization has become the recognized regional representation of Southeast Asia, and provides a forum for regional cooperation in many functional areas, including the environment

ASEAN is a relatively successful regional body, acquiring the commitment of all its member countries from the highest to the lowest level of government. However, the "ASEAN way" which entails dialogue, consensus and a policy of

non-interference usually result in a very slow process of decisionmaking and agreements, as well as implementation, among countries.

ASEAN has had an Environmental Programme, including action on the marine environment, since 1978, and several declarations on sustainable development. Currently, the basis for actions on sustainable development of the regional seas is the ASEAN Vision 2020 agenda and the 2004 Vientiane Action Programme (VAP). The VAP is intended to be a "living document" to flexibly address issues that concern the group of countries. Other ASEAN agreements related to environment include the following:

- ASEAN Agreement on the Conservation of Nature and Natural Resources – Signed as a



treaty in 1985, but never came into force as only five countries ratified the Agreement (Koh, 2003).

- ASEAN Agreement on Transboundary Haze Pollution – The only regional convention in effect in Southeast Asia. Indonesia is the only country yet to ratify the convention.
- ASEAN Framework Agreement on Access to Biological and Genetic Resources – Completed in 2003. Currently being revised to conform to the Bonn Guidelines.

The smaller group of countries in the Mekong River Basin has been successful in establishing the Mekong River Commission (MRC) through the Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin (1995), which has the status of an international treaty, among Cambodia, Lao People's Democratic Republic, Thailand and Vietnam. The MRC maintains a dialogue with the two upper countries of the Mekong, PR China and Myanmar. Implementation of the instrument faces serious constraints, including financial dependence on international contributions and limited capacity.³

However, it has managed to maintain focus and enjoy achievements by structuring its work around three core programs: the Water Utilization Programme, Basin Development Plan and Environment Programme. A fourth core program, the Flood Management and Mitigation Programme, began operation in January 2005 (MRC, 2003; MRC, 2005).

There is a higher number of nonbinding regional cooperation agreements than binding ones in the region. Foremost among these are those under the United Nations Environment Programme (UNEP) Regional Seas Programme, the East Asian Seas Regional Coordinating Unit (EAS/RCU) which acts as the Secretariat for the Coordinating Body on the Seas of East Asia (COBSEA), and the Action Plan for the Protection, Management and Development of the Marine and Coastal Environment of

the Northwest Pacific Region (NOWPAP). COBSEA, with ten participating countries (including Australia), implements the Action Plan for the Protection and Sustainable Development of the Marine Environment and Coastal Areas of the East Asian region; its work has been with the environmental sector of the participating countries. NOWPAP is currently focusing on the prevention and management of marine pollution. (*Editors' Note: Please see related articles on COBSEA and NOWPAP in this issue.*)

Aside from the aforementioned arrangements, there are a number of other regional programs and offices run by UN agencies and other organizations in the East Asian Seas.⁴ As there is a certain level of overlap in the activities of the different regional mechanisms, coordination is needed to avoid duplication (Tan, 2003).

PEMSEA and the SDS-SEA: Evolution of a Regional Mechanism

In 1994, the Global Environment Facility (GEF)/United Nations Development Programme (UNDP)/

³ And, it may be added, historical animosity between the member countries.

⁴ Including the following: IOC Sub-Commission for the Western Pacific (IOC/WESTPAC); Asia Pacific Economic Co-operation (APEC) Working Group on Marine Resource Conservation; Asia-Pacific Economic Cooperation (APEC) Fisheries Working Group (FWG); Association of Southeast Asian Nations (ASEAN) Working Group on Coastal and Marine Environment (AWGCM); ASEAN Sectoral Working Group on Fisheries (ASWGF); Food and Agriculture Organization (FAO) Asia Pacific Fishery Commission (APFIC); Southeast Asian Programme in Ocean Law, Policy and Management (SEAPOL); Regional Co-operative Agreement (RCA) of the International Atomic Energy Agency (IAEA); and UN Economic and Social Commission for Asia and the Pacific (UNESCAP); and the Southeast Asian Fisheries Development and Cooperation (SEAFDEC).

International Maritime Organization (IMO) Regional Programme for the Prevention and Management of Marine Pollution in the East Asian Seas (MPP-EAS) started with 11 member countries (Brunei Darussalam, Cambodia, China, DPR Korea, Indonesia, Malaysia, Philippines, RO Korea, Singapore, Thailand and Vietnam). Intergovernmental, interagency and multisectoral cooperation in management was the guiding principle of the project, and its approaches were based on integrated coastal management (ICM), the implementation of international conventions, science as an input to management, coordination between local and national policy, and the application of integrated approaches to the management of subregional seas. After six years, the Regional Programme entered into its second phase as the GEF/UNDP/IMO Regional Programme on Partnerships in Environmental Management for the Seas of East Asia (PEMSEA) and increased its number of participating countries to 12 (when Japan joined in 2002). Building on the lessons and experiences during the first phase, the programme progressed to management of the marine environment.

In its 12-year, two-phase existence, the Regional Programme, through a comprehensive set of activities, concentrated on building partnerships and consensus through stakeholder and multisectoral participation, the building of capacity to manage coasts and marine areas at local, national and regional levels

through science, and meeting international commitments. It promoted "north-south" and "south-south" cooperation by bringing various donors and experts from outside the region to work with the member countries, and inter-country cooperation. It succeeded in maintaining the participation of the very diverse countries of the region, bringing on board Japan in 2002, and lately, Lao PDR and Timor-Leste. Its flagship ICM approach is being scaled up in four dimensions: policy, function, coastline coverage and partnership (PEMSEA, 2006).

Through a stepwise process, delineated below, the Regional Programme has been able to develop consensus on the establishment of a regional seas mechanism for East Asia.

Developing a Regional Strategy

The decision to develop the Sustainable Development Strategy for the Seas of East Asia (SDS-SEA) stemmed from the East Asian countries' recognition that despite its diversity, the region is politically, economically, socially, culturally, and ecologically interconnected, and there is a need to harmonize these diversities and unify to protect and manage the rich marine resources in the region. Transboundary concerns, as well as the need to sustain the socioeconomic benefits provided by the seas of East Asia, were envisioned to be addressed through stakeholder partnership arrangements.

The SDS-SEA was developed over three years through consultation and consensus building among the countries and other regional stakeholders (PEMSEA, 2005a; 2005b). Its successful acceptance can be attributed to its timeliness, comprehensiveness, intersectoral integration, applicability at all levels, clear connection between environment and socioeconomic development, recognition of the roles of different stakeholders, and its viability as a platform for international and intraregional assistance and support.

The SDS-SEA incorporates relevant international conventions, and does not create a new set of obligations but rather complements existing ones. Even those that are not specifically mentioned, or those adopted after the Strategy can fit easily into the framework provided by the SDS-SEA. Further, stakeholders find their specific interests addressed by the Strategy which covers sectoral and multisectoral concerns and sustainable development as a whole. The integrated approach is useful to all, and not only to the developing countries, as the shift to a coordinated multisectoral management approach by governments is relatively recent. Based on the foregoing, the SDS-SEA has the potential to fill the need for a regional instrument on the environment and on the regional seas by providing a framework for regional cooperation in addressing ocean issues.

Nonbinding Adoption of the Strategy (Putrajaya Declaration)

The SDS–SEA was adopted, at the ministerial level, by the 12 PEMSEA countries through the Putrajaya Declaration of Regional Cooperation for the Sustainable Development of the Seas of East Asia on 12 December 2003 in Putrajaya, Malaysia.

Keeping the process of approval of the SDS–SEA simple by limiting it to the relevant Ministry of each country allowed the governments to proceed at their own respective pace of awareness building and consultation, and avoided the long and arduous political process for treaty ratification. (While national–level consultation did take place, understanding and integration did not automatically follow.)

The nonbinding option taken in the East Asian Seas region allows countries to comply with prescribed actions in the context of a program or on a voluntary basis. Given the varying economic status of the countries in the region, the countries find the nonbinding approach as favorable as it provides them with an option to explore other means of contributions that are within their respective means and capacities. Moreover, it provides the flexibility to consult and engage various stakeholders, complemented by flexible and non–standard mechanisms at finding solutions, thus, providing a more inclusive

form of management and governance.

Developing a Programme of Activities for the Strategy

After the adoption of the SDS–SEA, the next question was where and how to begin its implementation, as the Strategy was so comprehensive. This was addressed by the decision in the regional meetings following the Putrajaya Declaration⁵ to develop a programme of action for the implementation of the SDS–SEA. The resulting Programme of Action identified the regional priorities for the next ten years, reflected in six activities and including a ten–year regional framework programme and individual national framework programmes to support implementation of the SDS–SEA. Among its numerous objectives, much importance was given to the narrowing of capacity gaps between East Asian countries.

In the course of development of the Programme of Action, it was agreed that a regional mechanism was required for the sustainable implementation of the SDS–SEA. Thus, the very first component of the Programme of Activities was the establishment of institutional arrangements for a long–term regional mechanism in the form of a regional partnership arrangement.

Establishing a Regional Mechanism to Implement the Strategy

In the process of reaching a decision on a regional mechanism, it was recognized that PEMSEA was already implementing the SDS–SEA (de facto) (PEMSEA, 2004b). As such, the 10th PEMSEA Programme Steering Committee (PSC) Meeting (PEMSEA, 2004c) endorsed the transformation of PEMSEA from a project–based entity into a Partnership, for a more lasting arrangement.

A draft Partnership Agreement and Partnership Operating Arrangements outlining the institutional arrangements and terms of regional cooperation were adopted by the 11th Meeting of the PSC (PEMSEA, 2005c). The Partnership Agreement will transform PEMSEA from the existing project–based arrangement to an effective, self–sustaining regional collaborative mechanism, while the Partnership Operating Arrangements indicates the institutional arrangements for meaningful engagement of the stakeholder partners. The draft documents, which are currently under review by the countries and potential stakeholder Partners, are not legally binding in nature but call for commitment from the countries as well as other Partners.

The institutional arrangements identified in the Partnership Operating Arrangements are

⁵ See the Proceedings of the Preparatory Meeting (PEMSEA, 2004a), the 1st Working Group Meeting (PEMSEA, 2004b) and the 10th PSC Meeting (PEMSEA, 2004c).

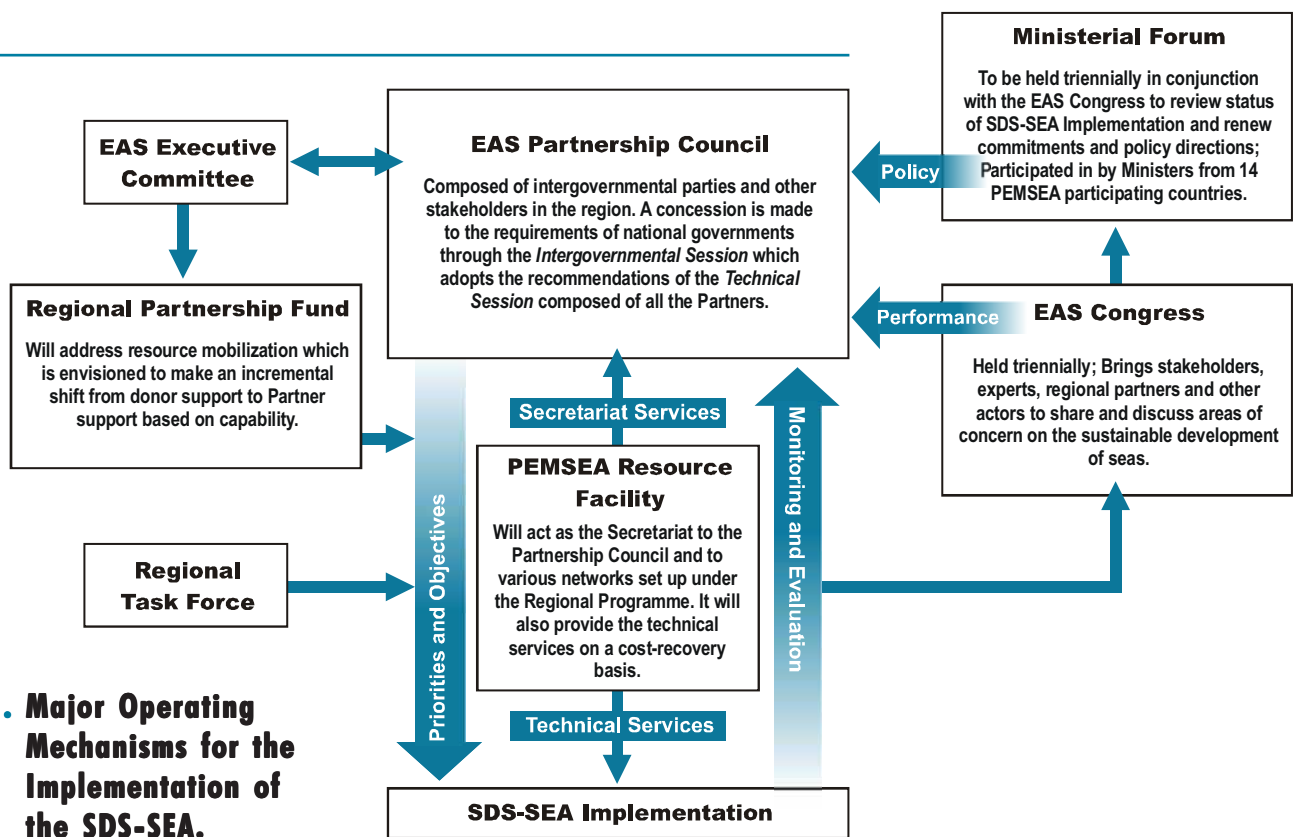


Figure 1. Major Operating Mechanisms for the Implementation of the SDS-SEA.

composed of the following interrelated components (Figure 1):

- a. The East Asian Seas (EAS) Partnership Council;
- b. The PEMSEA Resource Facility (PRF);
- c. The Regional Partnership Fund (RPF);
- d. The EAS Congress; and
- e. The Ministerial Forum.

The 11th PSC also adopted a transformation strategy through which the Regional Programme will transition into the Partnership Arrangement and the PEMSEA Regional Programme Office into the PRF.

Some countries committed to support the PRF Secretariat Services through voluntary cash and in-kind contributions. Recognizing this as a big step forward in terms of practical commitment, it was nevertheless

found that the technical services needed external support before a cost-recovery system for services rendered could be evolved as part of the regional mechanism operations. This combination of needs resulted in the application for GEF support for the implementation of the SDS-SEA. The Regional Programme on the Implementation of the SDS-SEA is structured into three phases over ten years. The first two three-year phases will be the transitional period (2007-2010, in which the partners will develop, agree on and commence the implementation of a ten-year framework of partnership programs under the SDS-SEA) and the transformation period (2010-2013, in which national level policies, legislation and programmes in coastal and ocean governance and ICM will be fully implemented, evaluated and refined). The last four-year period (2013-2017) will be the

sustainable operation period in which the GEF will exit as a major regional sponsor of the project and the Partners will take full responsibility for SDS-SEA implementation. (GEF funding has been approved for the first phase.) This arrangement allows the Partnership Arrangement to exist under the UN umbrella and lay the foundation for its development into an independent legal entity.

Partnership Arrangement: A New Approach to Coastal and Ocean Governance

In deciding to take the nonbinding approach for the regional implementing mechanism at this time, the PEMSEA countries had two basic considerations: the readiness to fully support the mechanism; and the need for new approaches in taking up

the challenge of the sustainable development of the seas of East Asia.

The 12-year experience of PEMSEA, as well as that of other programs, has shown that involving stakeholders other than governments is very important in the management of coasts and oceans. The Partnership approach has become widely endorsed as an effective approach in environmental management. In fact, international instruments such as the Rio Declaration and the Johannesburg Plan of Implementation advocate for the creation and promotion of partnerships to incorporate and mobilize various stakeholders from the local, national, regional and global level to join hands, establish environmental sound management mechanisms for the achievement of "widely shared goals of sustainable development."⁶

A particular case using the Partnership approach is the IUCN, by which not only national governments but local governments, NGOs, international organizations, and even individuals can participate as members. Then there is the "NGO Forum" model whereby a conference of NGOs meets prior to the conference proper, and a representative then presents the NGO Forum's conclusions and recommendations at the Conference proper. This was done at UNCED, and has been used in related international conferences since then.

Partnership is an innovative approach to foster the cooperation and collaboration with other non-traditional parties or stakeholders in coastal and ocean governance. Partnership building stems from the recognition that in order to enhance coastal and ocean management and to effectively address the growing concerns of the coastal and ocean environment, multisectoral, interagency and intergovernmental cooperation is necessary.

The Partnership approach entails the building of trust and understanding. This element enables the establishment of cooperation and collaboration even with conflicting or disparate parties, leading to a paradigm shift in coastal and ocean management by providing a more open and flexible means of cooperation.

The East Asian Seas region opted to take the partnership approach in the implementation of the SDS-SEA, not just to avoid the difficulties of the conventional approach, but to innovate the institutionalization of stakeholder involvement. Thus, all participants, countries or otherwise, are to be known as "Partners." For the past 12 years, PEMSEA has established partnerships at the local (i.e., ICM sites in various areas in the region, PEMSEA Network of Local Governments, etc.), subregional (i.e., Joint Statement for Oil and Chemical

Spill Preparedness, Response and Cooperation in the Gulf of Thailand by Cambodia, Thailand and Vietnam, Manila Bay Declaration, Bohai Sea Declaration, etc.), and regional levels (i.e., Putrajaya Declaration and adoption of the SDS-SEA).

The Partnership approach should help the countries of the region as well as other Partners settle into the habit of cooperation, and become comfortable with the idea of "institutionalized" mechanisms, which calls for binding instruments. This process can be facilitated by building on the strengths and values of the SDS-SEA and addressing the inevitable weaknesses and negative factors by pursuing a step-wise, incremental approach to implementation, undertaking confidence-building measures, meeting promises of assistance and recognition, and taking advantage of the "pragmatism" of the Partners and stakeholders toward achieving effectiveness.

A New Paradigm for Regional Cooperation — A Process- and Partnership-Oriented Regional Mechanism

The overall framework that the SDS-SEA provides, complemented by a mechanism that is based on the spirit of partnerships, will introduce an innovative approach in the governance of coasts and oceans in the region. In December 2006, Ministers of the 14 East Asian

⁶ From the WSSD Plan of Implementation. Principle 27 of the Rio Declaration also clearly states that "States and people shall cooperate in good faith and in a spirit of partnership in the fulfillment of the principles embodied in this Declaration and in the further development of international law in the field of sustainable development" (Rio Declaration on Environment and Development, 1972).

countries are expected to adopt the Haikou Partnership Agreement. This will usher in a new paradigm for regional cooperation that differs from those of regional conventions, in that the mode of regional cooperation is based on the moral obligation of partners, be they governments or otherwise, to comply with agreed principles, objectives and activities guided by a shared vision. Partnering stakeholders are required to sign the Partnership Operating Arrangements which delineates roles and responsibilities and is an annex to the Partnership Agreement. The new regional mechanism made up of the five interrelated components will be different from the conventional approach which generally consists of a secretariat and an intergovernmental council.

In implementing the SDS-SEA, the regional mechanism will facilitate establishment of linkages or synergies with various stakeholders at the international, regional, national and local levels, with a view to enhance regional coordination, promote policy and functional integration and establish or link regional, subregional and subnational agreements. In particular, the mechanism will encourage the establishment or formulation of site- or issue-specific subregional agreements within the overall framework of the SDS-SEA, as exemplified by the subregional agreement between Cambodia, Thailand and Vietnam on oil and chemical spill preparedness, response and cooperation in the Gulf of Thailand. Implementation will be

The 12-year experience of PEMSEA, as well as that of other programs, has shown that involving stakeholders other than governments is very important in the management of coasts and oceans.

strengthened through the cooperative framework of the SDS-SEA. This approach will enable the region to streamline regional or subregional agreements and ensure a more effective, cohesive and vision-focused regional cooperation. Similarly, the PEMSEA Network of Local Governments (PNLG), based on a subnational agreement in the form of a Charter signed by participating local governments for the implementation of ICM in the region, exemplifies the new modes that will be part of the partnership. Such arrangements provide a stronger bond between partnering stakeholders as these are based on common concerns (Figure 2).

The new regional mechanism is process- and results-oriented in establishing and consolidating its operational functions. This allows the mechanism to mature through succeeding phases, ensuring effectiveness, trust and commitment.

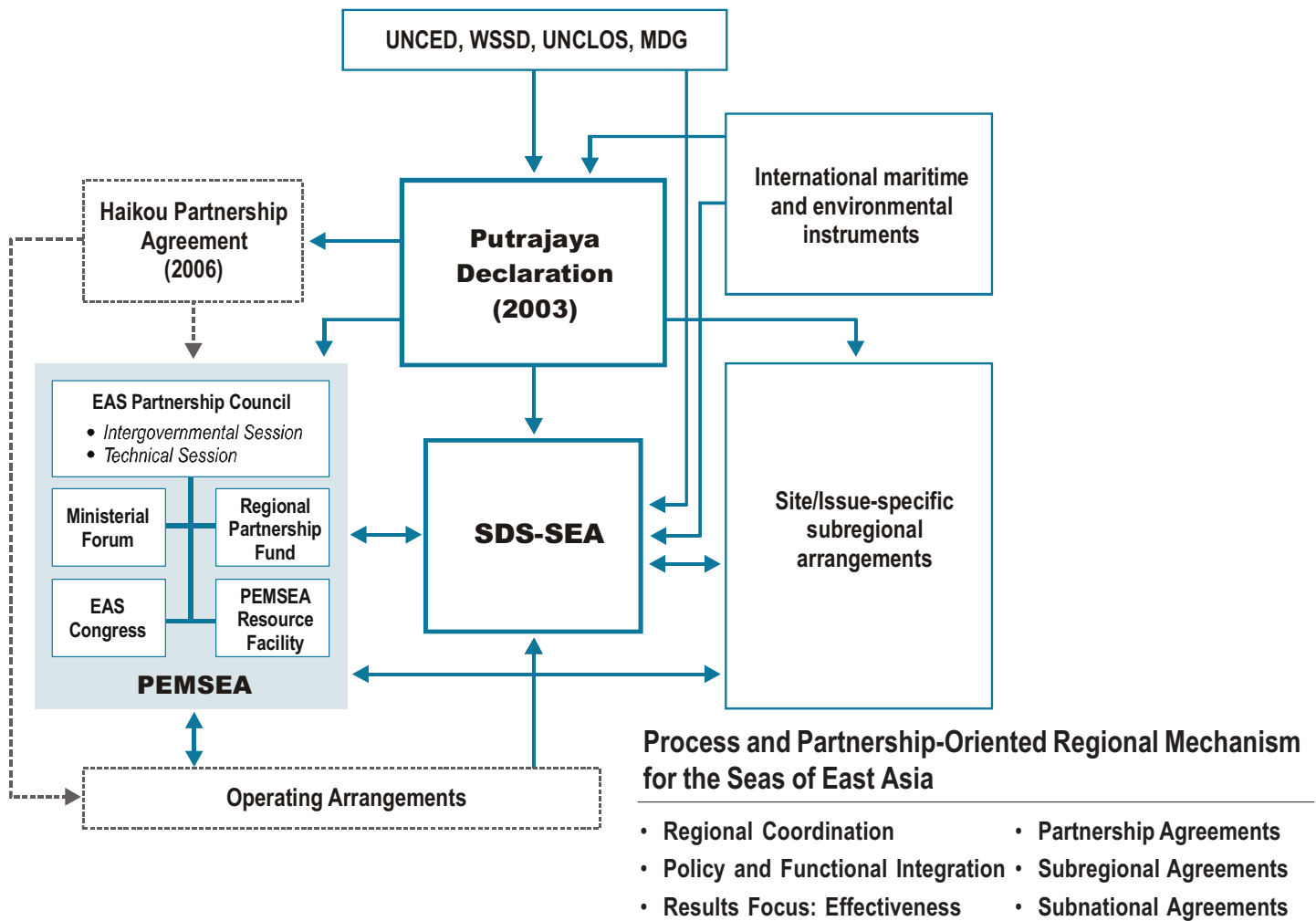
Conclusion

The establishment of a regional mechanism for the implementation of the SDS-SEA will bring about a paradigm shift in regional

cooperation for the Seas of East Asia, that will: (a) demonstrate a shift in coastal and ocean governance from an intergovernmental approach to a partnership involving both governments and stakeholders; (b) establish a process- and vision-oriented regional mechanism that will consolidate regional efforts in achieving target-focused action programs; (c) mobilize the human and financial resources of stakeholder partners through a common platform and framework for coastal and ocean governance; (d) synergize and re-orient existing fragmented projects and programs related to coastal and ocean management towards achieving common visions and a common program framework; and (e) instill a dynamic process to enable advocacy, monitoring, and evaluation of progress and impacts.

An effective regional arrangement is the best argument for legally binding commitments. Effective implementation of the SDS-SEA will create stronger cooperation and collaboration among various coastal and ocean management initiatives, including regional and international organizations, in fulfilling their

Figure 2. A New Paradigm for Regional Cooperation.



ocean-related mandates as well as strengthening individual management efforts in the six large marine ecosystems of the region. Sustainability of the regional mechanism very much depends on its effectiveness. Participating countries and stakeholders need to gain confidence and trust before agreeing to a more permanent and binding arrangement. Once it is shown that the arrangement works, the Partners will be more ready to take that step.

The question that may need to be answered, however, is whether a regional convention would be the right option for the region, as such an instrument involves only national governments as parties and exclude

the other stakeholder Partners. Thus, it is quite possible that the region will innovate a new kind of regional instrument using the Partnership approach that includes not only countries as parties but all stakeholders as well.

At the present time, there is a limited number of models for the Partnership approach. The regional mechanism for the implementation of the SDS-SEA may well be the first of its kind, and could provide a first example of a successful regional regime of countries and other stakeholders in a committed and effective cooperation towards sustainable development of the regional seas. ■

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NEWS

Philippines Adopts ICM as a National Policy Framework, Manila Bay Project Cited

PASAY CITY, PHILIPPINES — Philippine President Gloria Macapagal-Arroyo announced the country's adoption of integrated coastal management (ICM) as a management framework for the sustainable development of coastal and marine environment and resources during the National Forum on Sustainable Development of Coastal Marine Resources, held on 7 June at the Hotel Philippine Plaza.

Executive Order No. 533 (EO 533), signed by the President, stresses the role of ICM in promoting sustainable development of the country's coastal and marine environment and resources in order to achieve food security, sustainable livelihood, poverty alleviation and reduction of vulnerability to natural hazards, while preserving ecological integrity. The integrated approach of ICM is crucial in addressing interlinkages among associated watersheds, estuaries, wetlands and coastal seas. EO 533 specifically mandates the Department of Environment and Natural Resources (DENR) to develop a national ICM Program, in consultation with other concerned agencies, sectors and stakeholders within one year. The national ICM Program will identify the relevant principles, strategies and action plans after balancing national development priorities with local concerns, define national ICM targets, and develop a national ICM coordinating mechanism. It is expected to provide direction, support and guidance to the local government units and stakeholders in the development and implementation of their local ICM programs.

In the same forum, the President also recognized the achievements of the Manila Bay Environmental Management Project, and cited its important role of serving as "a good test case to demonstrate that the country's most important bay can meet the needs of all sectors relying on it for food, livelihood, commerce and transportation, while protecting it from further degradation." In 2001, President Arroyo endorsed the Manila Bay Coastal Strategy, which laid down the framework of action for the Manila Bay region aimed at sustaining its capacity to provide food, resources and livelihood to an estimated 23 million Filipinos.

Dr. Chua Thia-Eng, PEMSEA Regional Programme Director, emphasized "that the case of Manila Bay requires constant attention and careful management because the challenges encountered by the country's coastal and marine management are overwhelming." He noted further that there is a need for concerted action to protect the seas. "The Philippines, together with its neighboring countries, recognizes that the problems besetting the East Asian Seas are too complex for governments to handle alone," Dr. Chua explained.

The Forum was co-organized by the DENR and was attended by representatives from national and local governments, NGOs, media and the private sector. ■

PEMSEA's Terminal Evaluation Calls for Renewed Support from GEF to Sustain the Programme's Gains

QUEZON CITY, PHILIPPINES — After more than two months of comprehensively assessing performance and finding areas for improvement, the Terminal Evaluation of PEMSEA ended with the official submission of the Terminal Evaluation Report on 26 April to the United Nations Development Programme and the International Maritime Organization, PEMSEA's Implementing and Executing Agencies, respectively. The 50-page report contains the findings, recommendations and lessons learned by PEMSEA's Terminal Evaluation Team, led by Dr. Gunnar Kullenberg, with Dr. Kem Lowry and Dr. Cielito Habito as team members.

In partial fulfillment of the monitoring and evaluation requirements for all full-sized projects in the Global Environment Facility's International Waters portfolio, PEMSEA's Terminal Evaluation ushered the final stages of the current phase's project life. To ensure the accuracy and relevance of gathered information, the Terminal Evaluation Team undertook rigorous evaluation procedures and methods, including dialogues with the Regional Programme Office management and staff, field visits to selected PEMSEA project sites (Manila Bay, Bataan and Batangas in the Philippines; Chonburi and Bangkok Port in Thailand; Sihanoukville in Cambodia and Danang in Vietnam), telephone interviews with PEMSEA's partners and project managers, desk reviews of PEMSEA documents and publications, and participation in PEMSEA's stakeholder workshops on SDS-SEA implementation.

Among the salient findings and recommendations of the Terminal Evaluation Team were:

- Continued GEF funding support for the PEMSEA project;
- Sustaining the momentum of progress already built in the region through the PEMSEA initiatives;
- Pursuing the proposal to establish the East Asian Seas Partnership Council with the accompanying Ministerial Forum; and
- Continued monitoring of the progress at the local, national and subregional levels established through partnerships and networks.

In addition, the Terminal Evaluation Report cited three important lessons learned:

- Success and sustainability hinges on the proper combination of key Programme ingredients;
- Partnerships must be inclusive, harnessing efforts and resources from all relevant stakeholder groups at various levels and in all aspects of the work; and
- PEMSEA's combination of "top-down" and "bottom-up" impetus is effective in securing necessary political commitment.

With the publication of the Report, it is hoped that PEMSEA's achievements and lessons learned will benefit similar GEF projects and other interested parties. ■

Bohai Sea Project Hailed in National Consultation, but Serious Challenges Still Ahead

SHANDONG PROVINCE, PR CHINA — The State Oceanic Administration (SOA) and the Provincial and Municipal Governments of Liaoning, Hebei, Shandong, Tianjin and Dalian, in collaboration with PEMSEA, organized the Bohai Sea Forum and the National Consultation on the Implementation of the Sustainable Development Strategy for the Seas of East Asia (SDS-SEA), held 15-18 May in Yantai, Shandong Province. The event distilled lessons learned from the implementation of the Bohai Sea Environmental Management Project (BSEMP) and generated valuable inputs as the country begins to draw up its national program for the implementation of the SDS-SEA.

More than 50 participants representing agencies and local government units involved in the Bohai Sea project presented their studies and activities. The projects in Shuangdaizhi Estuary and tourism beaches in Qinhuangdao demonstrated positive and tangible results in habitat protection and pollution abatement.

Mr. Haiqing Li, Director-General of SOA's Department of International Cooperation, commended BSEMP for developing a legal and organizational framework for interagency and intergovernment collaboration as well as the Bohai Sea SDS and site-specific action plans, adding that the mobilization of stakeholders and a team of national professionals is an important project legacy for the governments of various levels to carry forward. Dr. Chua Thia-Eng, Regional Programme Director of PEMSEA, lauded the achievements of the Bohai Sea project and at the same time emphasized the need for an effective supervision, monitoring and assessment platform for management interventions.

The Consultation following the forum incorporated the lessons from the Bohai Sea project to enrich the inputs in the design of the national program

for the SDS-SEA implementation from 2007-2010. The SDS-SEA is a regional platform for collaborative actions for the sustainable development of the Seas of East Asia, endorsed by 12 countries through the Putrajaya Declaration in 2003. The national program is expected to reflect country and regional priority activities, particularly the development of a national coastal and ocean policy, the scaling up of integrated coastal management programs, ecosystem-based management, knowledge management and sharing, public and private sector partnership, and the development of the regional coordinating mechanism for the SDS-SEA implementation. Mr. Li stressed the three important principles in designing the national program - land and sea integration, integrated management of environment and natural resources, and sustainable development. Further stakeholder consultations will be conducted by SOA to sharpen the future project focus.

On another note, Mr. Wang Shicheng, Deputy Director-General of Shandong Provincial Department of Ocean and Fisheries, proposed the reconstruction of the "Jiao-Lai Canal," across Shandong Peninsula, connecting Jiaozhou Bay bordering the Yellow Sea with Laizhou Bay bordering the Bohai Sea. The Jiao-Lai Canal was built in ancient times to facilitate grain transportation. The reconstruction would provide a circum-peninsular circulation between the Yellow Sea and the Bohai Sea that is expected to increase their environmental carrying capacity. The proposal generated the interest of the participants and initial studies are expected to ensue.

Participants believe that the GEF Bohai Sea project, together with other initiatives, has helped slow down the deterioration of environmental quality in the Bohai Sea. However, existing efforts are far from sufficient when taken in view of the overall pollution status in the region. Devolution of more management responsibilities for, and enhancement of collaboration among, the local governments and stakeholders bordering the Bohai Sea and its river drainage basins may offer new hope for effective pollution abatement. ■

Financing Water, Sewage and Sanitation — A Major Theme at the East Asian Seas Congress

QUEZON CITY, PHILIPPINES — Financing water, sewage and sanitation projects will be one of the major issues to be addressed during the East Asian Seas Congress 2006, which will be held from 12-16 December in Haikou City, Hainan Province, PR China.

Water supply, sanitation and sewage are major issues facing the rapidly growing population of the East Asian seas region. According to the World Water Development Report 2002, 715 million people lacked access to improved water supply while 1.9 billion lacked access to improved sanitation in Asia. The situation is aggravated by the fiscal and capacity limitations faced by local government units in allocating funds and resources for much-needed water supply, sanitation and sewage treatment projects.

The theme entitled "Local Government Financing for Water, Sewage and Sanitation" explores the ways and means to finance environmental improvement infrastructure for wastewater and solid waste management in small and secondary townships. The concept of and experiences related to public-private sector partnerships and the paradigm shift in waste management will be further discussed. Various workshops and seminars around this theme will also be organized together with multilateral financial institutions with the objective of providing valuable information on project development and sustainability, and effectively obtaining, generating and managing funding for water, sanitation and sewage projects.

For more information on the EAS Congress 2006 or to pre-register, please visit www.pemsea.org/eascongress or email congress@pemsea.org. ■

NEWS

PEMSEA Signs Three MOUs with KORDI, KMI and KEI

SEOUL, RO KOREA — Three Korean research institutions pledged cooperation with PEMSEA to broaden knowledge sharing and capacity building in integrated coastal management in the East Asian Seas region.

PEMSEA, represented by the Regional Programme Director, Dr. Chua Thia-Eng, signed two Memoranda of Understanding with the Presidents of Korea Maritime Institute (KMI) and Korea Ocean Research and Development Institute (KORDI) on 9 May at the National Consultative Workshop, held in Plaza Hotel, Seoul, RO Korea. Another MOU was signed with the President of the Korea Environment Institute (KEI) on 11 May, during his visit to KEI.

The cooperation aims to enhance the knowledge and capacities of East Asian countries in the sustainable use and management of the region's coastal and marine environment. In particular, the agreements provide a formal framework for organization of joint training and technical workshops, knowledge sharing, development of research initiatives and staff exchange. Long-term partnership programs for collaboration will be developed for the three institutions, and these serve as basis for the signing of Partnership Operating Arrangements at the upcoming East Asian Seas Congress 2006. ■

National Forum on SDS-SEA Implementation Successfully Concluded in Seoul


SEOUL, RO KOREA — The government of RO Korea and other stakeholders in the country expressed commitment to play a stronger role in strengthening coastal and ocean management in the region through the implementation of the Sustainable Development Strategy for the Seas of East Asia (SDS-SEA). This was the general consensus reached at the recently concluded National Consultative Workshop on RO Korea's implementation of the SDS-SEA, which was co-organized by the Korea Maritime Institute (KMI) and sponsored by the Ministry of Maritime Affairs and Fisheries (MOMAF).

The Workshop was opened by Dr. Lee Jung-Hwan, KMI President, and congratulatory remarks were delivered by Mr. Shin Pyong-Sik (Director General of MOMAF) on behalf of Minister Kim Sung-Jin, Dr. Yum Ki-Dae (KORDI President) and Dr. Chua Thia-Eng. The Workshop focused on the following objectives: to build the awareness of national and local leaders on the SDS-SEA; identify baseline activities, major gaps and country priorities for the national implementation of SDS-SEA; identify specific country activities for the GEF/UNDP Project on the Implementation of the SDS-SEA; and confirm the interest/commitments of potential collaborative institutions. About 70 officials and experts from the national government agencies, research institutions, universities, private sector, NGOs, Korea International Cooperation Agency (KOICA), Korea Ocean Research and Development Institute (KORDI), and other relevant institutions in RO Korea participated in the Workshop.


These objectives were reached through effective and successful presentations, information exchange and discussion during the Workshop. In particular, the panel discussion on RO Korea's program of activities for the implementation of the SDS-SEA provided an opportunity to brainstorm on the current issues facing coastal and ocean governance in the country as well as the actions to be taken to address these. The active participation of the

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PUBLICATIONS
HOT OFF THE PRESS




Integrated Information Management System for Coastal and Marine Environment (User Manual, 62 pp., with CD-Rom; and Guide to Establishing IIMS, 169 pp.).



Sustaining Benefits, 38 pp.



Policy Brief on Integrated Coastal Management (ICM): Revitalizing the Coasts and Oceans Program in the Philippines, 8 pp.



Policy Brief on Sustainable Development and Management of Manila Bay: A Focus on Water Quality, 8 pp.

Private and Public Sectors Engage Sihanoukville Community in Solid Waste Management

About a three-hour drive from the capital Phnom Penh lies Sihanoukville — home to the only deepwater port in Cambodia and perhaps the most pristine beaches in the region.

Recent improvements in transportation and road networks have made Sihanoukville even more accessible to tourists, with local tourists increasing from 4,585 in 1993 to 83,888 in 2003, and foreign tourists from 8,428 to 33,604 during the same period.

Like all developing tourist areas, Sihanoukville is faced with the daunting task of waste management, which has been complicated by a web of challenges ranging from poor infrastructure and solid waste facilities, limited budget for enforcement and lack of a systematic process in waste collection, to poor information among communities on health and sanitary measures. The municipality's capacity to address solid waste management (SWM), therefore, has become more difficult due to rapid industrialization and as industries and business sectors shift to nonbiodegradable materials in the production of goods, thereby increasing the volume of wastes being disposed every day.

Based on a 2001 study, only 30 percent of generated wastes are being collected. Projects on SWM, therefore, need to focus not only on improving waste collection facilities and services, but on involving communities in waste management.

A pilot project on community-based SWM in Village 1 Sangkat 4 is an initial step in involving the community in SWM. Supported by the PEMSEA Project in Sihanoukville, the Municipal Government, through the Department of Environment and the Commune Council, works with community members and the CINTRI Waste Company. The project has collected and properly disposed 175

T of wastes that have accumulated in the commune since 1992. Sangkat 4 is located at the town center where most business establishments are situated. Village 1 is in the inner part of the town center, which makes waste collection more difficult for the waste company.

The SWM Project includes baseline data gathering, training, a clean and green campaign, and household involvement in community cleanup and waste segregation. Getting the school children to participate is also an important aspect of the project. About 70 percent of the households in Village 1 are composed of children 6-17 years of age, which emphasizes the essential role of the youth in the project. Extensive information campaigns are being done to inculcate proper waste management practices.

The project, while relatively small in scale, provides a venue where common problems of waste management are being solved through more flexible public-private partnerships. Aside from the CINTRI Waste Company, the Royal University of Phnom Penh (RUPP) - Department of Environmental Science, provides the necessary technical support in the analysis of baseline information and conduct of community training. ■

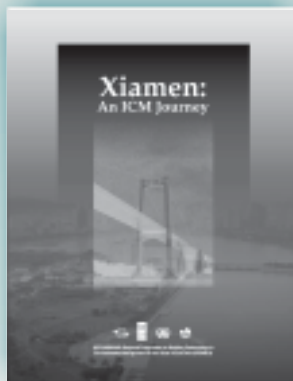
National Forum on SDS-SEA...

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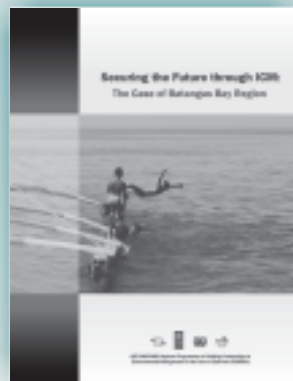
stakeholders and various government agencies helped enormously in bringing about a successful outcome of the Workshop.

The Workshop is one of the many initiatives being undertaken by PEMSEA as part of the preparations for the implementation of the SDS-SEA. The SDS-SEA, which was endorsed by the 12 East Asian countries in December 2003 through the Putrajaya Declaration, provides a common framework of action for the sustainable use and development of the region's coastal and marine environment and resources. The draft Partnership Agreement and Partnership Operating Arrangement that will establish the regional implementing mechanisms for the implementation of the SDS-SEA are currently being reviewed by PEMSEA participating countries and potential partners. These documents are expected to be endorsed at the EAS Congress in December 2006. ■

Visit the PEMSEA Media Center or the online bookstore at www.pemsea.org.



Xiamen: An ICM Journey, 93 pp.



Securing the Future through ICM: The Case of Batangas Bay Region, 84 pp.



A Perspective on the Environmental and Socio-economic Benefits and Costs of Integrated Coastal Management: The Case of Xiamen, PR China, 132 pp.



PEMSEA Terminal Evaluation Report, 177 pp.

NEWS

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Training Course on IEIA for Coastal and Marine Areas Held in Hong Kong

HONG KONG, PR CHINA — "What fascinated me was the concept of Integrated Environmental Impact Assessment which considers the combined impacts of various development projects on a given area and provides appreciation and comprehension of cumulative, synergistic and antagonistic impacts," said Nguyen Thanh Lam of the Institute for Scientific Information in Vietnam on the training course on "Integrated Environmental Impact Assessment for Coastal and Marine Areas," held at the City University of Hong Kong on 4-10 June.

Participated in by 32 representatives from Cambodia, PR China, Indonesia, DPR Korea, Malaysia, Philippines, Thailand and Vietnam, the training is the fourth of the five-part training on IEIA being organized by PEMSEA, Coastal Management Center (CMC) and the Centre for Coastal Pollution and Conservation, City University of Hong Kong. This is one of the initiatives under the Area of Excellence (AoE): Marine Research and Innovative Technology (MERIT) awarded to the Centre for Coastal Pollution and Conservation. The training was coordinated by Prof. Rudolf Wu and Dr. Paul Shin.

During the workshop, participants were given the chance to learn from experts from various departments of the City University of Hong Kong, including the Centre for Coastal Pollution and Conservation/Department of Biology and Chemistry and Department of Public and Social Administration, and the Department of Ecology and Biodiversity of the University of Hong Kong. An expert from the Environmental Protection Department, Hong Kong SAR Government was also invited as lecturer. The Training Manual on the IEIA for Coastal and Marine Areas produced by PEMSEA was used as a main reference material for the training. Case study presentations also increased the understanding of the application of IEIA in various contexts.

Following the training course, a one-day workshop on "Environmental Pollution and Applied Ecotoxicology" provided the participants additional information on using different toxicity tests for screening and risk assessment. The workshop included three presentations with guest speakers from City University of Hong Kong, Hong Kong Baptist University and Ghent University, Belgium, and was attended by all the participants including some 40 people from local government offices, universities, consulting firms and testing laboratories. ■

China and ROK Gear Up for EAS Congress

QUEZON CITY, PHILIPPINES — The People's Republic of China and the Republic of Korea expressed overwhelming interest to participate in the East Asian Seas (EAS) Congress 2006.

In recent PEMSEA forums and activities in the two countries, PR China and RO Korea recognized the significant opportunity that the EAS Congress will provide for the further enhancement of cooperation in the sustainable development of the East Asian Seas.

The Ministry of Maritime Affairs and Fisheries (MOMAF), Korea Ocean Research Development Institute (KORDI), Korea Maritime Institute (KMI), and Korea Environment Institute (KEI) believe that the Congress will provide a good avenue for the experts of RO Korea to interact and share their experiences with various other PEMSEA partners. The event will also allow participants from different disciplines to come together and discuss varied issues on coastal and marine development. It was estimated that about 50 participants from RO Korea will attend the event.

The State Oceanic Administration (SOA) of China and the Chinese Institute of Marine Affairs (CIMA) have also stepped up preparations for the Congress. The SOA, as host agency of the event, will provide the necessary support to ensure the smooth conduct of the conference. CIMA, on the other hand, is planning to organize and conduct a side meeting of directors of the Marine Affairs Institute of East Asia. The Director of CIMA, Dr. Gao Zhiguo, also expressed willingness to invite other participants to the meeting as well as provide supporting staff to the Congress.

The active involvement of PR China and RO Korea in the EAS Congress shows the countries' willingness to strengthen actions and commitment for the protection and sustainable development of the seas in the region.

The EAS Congress will be held in Haikou City, Hainan Province, PR China, on 12-16 December 2006. Further information on Congress activities can be found at www.pemsea.org/eascongress. Questions and comments on the Congress can be sent to congress@pemsea.org. ■

The East Asian Seas Congress

2006

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Timeline of Key Events in Regional Cooperation for Coastal and Ocean Governance



REFERENCES

Black Sea Commission. www.blacksea-commission.org

CEP. www.cep.unep.org

Caspian Environment Programme. www.caspianenvironment.org

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COBSEA. www.cobsea.org

CPPS. www.cpps-int.org

HELCOM. www.helcom.fi

Mediterranean Action Plan. www.unepmap.gr

Nairobi Convention. hq.unep.org/easternafrica/index.cfm

NOWPAP. www.nowpap.org

OSPAR Commission. www.ospar.org

PAME International Secretariat. www.pame.is

PERSGA. www.persga.org

PEMSEA. www.pemsea.org

ROPME. www.ropme.net

SACEP. www.sacep.org

SPREP. www.sprep.org.ws

UNEP Regional Seas Programme. www.unep.org/regionalseas

¹ The Paris and Oslo Conventions were combined into the OSPAR Convention.

² Not yet in force.