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SOUTH ASIAN SEAS

The Newsletter of the South Asian Seas (SAS) Programme

SACEP

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Editorial

Welcome to the first Issue of South Asian Seas; the Newsletter of the South Asian Seas Programme, dedicated to protect and manage the South Asian Coastal and Marine Resources.

The South Asian Seas (SAS) Region, located in the Northern Indian Ocean is divided by the Indian landmass into the Arabian Sea and the Bay of Bengal. Included in this region are five maritime countries, which can be categorised into two distinct geographical groups; Maldives and Sri Lanka are island nations while Bangladesh, India, and Pakistan are situated on the Asian mainland. The total land area covered by these countries is approx. 4.5 million sq.km, and it holds a population of about 1.21 billion people.

The SAS region has an extensive system of diverse marine and coastal habitats such as mangroves, sea grass beds and coral reefs, which support some of the richest concentrations of biodiversity in the world. Among the endangered species, which inhabit these unique habitats, are the royal bengal tiger, marine turtles, whales, dolphins and dugongs.

Reef in Maldives (Photo: Susie Westmacott)

Population growth combined with poverty and unsustainable development practices inflict heavy pressures on this coastal and marine resource base. Except Sri Lanka,the other four countries have high population growth rates. The coastal areas of this region are characterised by the location of some of the largest population concentrations in the world (Karachi, Bombay, Madras, Calcutta and Dhaka). The entire population of the Maldives can be considered as coastal, while in Sri Lanka more than 32% of population is found in the coastal belt. The livelihoods of many people living in the coastal areas are dependent on exploitation of coastal resources and the main economic activities associated with the coastal zone are fishing and tourism.

Global warming and the associated sea level rise is a major threat to the region and the Maldives has become an endangered nation due to this phenomenon. One-meter rise in sea level will inundate 23,000 km^2 of major populated areas of Bangladesh. The Arabian Sea and parts of the Bay of Bengal lie on the oil tanker route and several incidents of medium and small sized oil spills in the coastal waters have been reported from the region.

As a response to the concerns voiced over increased degradation of coastal and marine ecosystems of the region, the South Asia Co-operative Environment Programme (SACEP) in collaboration with its member states initiated the South Asian Seas Programme as a part of UNEP's Regional Seas Programme. Under this programme, an Action Plan for the Protection and Management of the Marine Environment and the related Coastal Ecosystems of the South Asian Seas Region was adopted in 1995.

This inaugural issue of South Asian Seas Newsletter provides a comprehensive overview of the South Asian Seas Programme and the projects being implemented under it.

Towards a Regional Programme for Saving the South Asian Seas

The Regional Seas Programme was established by UNEP in 1974 as a global programme, implemented through regional components, for the control of marine pollution and the management of marine and coastal resources.

The programme currently includes 14 functional regions with the participation of over 140 coastal states and territories. In addition there are 3 partner programmes, which is not included in UNEP's Regional Seas framework.

UNEP works with the concerned governments in the preparation of a Regional Action Plan and each plan is formulated according to the needs of the region as perceived by the states. The Plan outlines activities related to Environmental Assessment, Management, Legislation, Institutional and Financial arrangements

Whenever appropriate, the Regional Seas Conventions and Action Plans have served as a main mechanism for implementing various ocean- related global initiatives and conventions. The more mature Regional Seas Conventions have developed protocols complimentary to global conventions and agreements such as the Convention on Biological Diversity (CBD), the Basal Convention and the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities.

The overall co-ordination provided by UNEP ensures that the activities for the Regional Seas Conventions and Action Plans that it has helped to negotiate, although implemented regionally, remain essentially global in nature.

Existing Action Plans and the Year of Adoption:

1. Mediterranean Sea, 1975
2. Red Sea and Gulf of Aden, 1976 revised in 1982
3. Kuwait region, 1978
4. West and Central African Seas, 1981
5. Wider Caribbean region, 1981
6. East Asian Seas region, 1981
7. South-East Pacific region, 1981
8. South Pacific, 1982
9. Eastern Africa, 1985
10. Black Sea, 1993
11. North-West Pacific region, 1994
12. South Asian Seas, 1995
13. North East Pacific, 2001

In Preparation:

14. Upper South-West Atlantic, since 1980

Partner Programmes:

15. Arctic
16. North-East Atlantic (OSPAR)
17. Baltic (HELCOM)

The South Asian Seas Programme and the Development of the Action Plan

The emergence of the South Asia Co-operative Environment Programme (SACEP) in 1981, led to the request for launching of a Regional Programme for the South Asian Seas by its member states at the UNEP's Governing Council Meeting in 1981. As a result, a decision was taken at the 10th Session of the UNEP's Governing Council held in May 1982, to send a mission to the coastal states of SACEP region to ascertain the views of the Governments regarding the conduct of a Regional Seas Programme.

In May 1983, by the decision 11/7 of the eleventh Governing Council Meeting, the South Asian Seas (SAS) region was designated as a part of the UNEP's Regional Seas Programme to be implemented in close co-operation with SACEP and the Governments of the South Asian Seas Region.

The development and adoption of the Action Plan for the South Asian Seas Region took another 12 years due to a variety of reasons. The following table highlights the major activities undertaken between 1984-1995, in pursuance of the objective of establishing the South Asian Seas Action Plan.

Year & Place	Event	Major Activities/Initiatives Undertaken
• March 1984 Bangkok	First National Focal Points Meeting for the Development of an Action Plan for the region	The geographical scope of the Action Plan was agreed upon and 8 priority areas of regional concern were identified. The preparation of country and regional report/s were also recommended
• December 1986 Bangkok	A Meeting of Experts of the SAS Region	The review of the Country Reports and the draft Regional Report took place at the Meeting. The draft Action Plan for the Protection and Management of the SAS region was also reviewed and revised.
• December 1987 Bangkok	Second National Focal Points Meeting for the Development of an Action Plan for the Region	Agreement reached for the setting-up of a Trust Fund to support the implementation of the Action Plan, and SACEP entrusted with the task of its management
• February 1990 Bangkok	Meeting of Legal and Technical Experts	The review and revision of the draft umbrella Convention and 3 draft Protocols prepared by UNEP in connection with and as the legal framework of the SASAP.
• December 1993 Colombo	ESCAP/UNEP/SACEP Workshop on Management Strategies for the Protection of the Coastal and Marine Environment for the SAS Region.	An overview of the coastal environment of the South Asian Seas Region was presented at the meeting. A thorough assessment of capacity-building requirements in the region was carried out and recommendations were formulated to address the issues.

• May 1994 New Delhi	ESCAP/UNEP/SACEP Intergovernmental Meeting on Capacity Building in Coastal and Marine Environment in SAS region	Endorsement of the 4 priority activities of the Action Plan, as priority elements for environmentally sound coastal zone management in the region in accordance with Chapter 17 of Agenda 21.
• November 1994 Colombo	Third National Focal Points Meeting for the Development of the Action Plan	The member states came to an agreement on the institutional arrangements for the implementation of the Action Plan
• March 1995 New Delhi	Fourth National Focal Points meeting for the Development of the Action Plan	The meeting was held immediately prior to the meeting of Plenipotentiaries to review and finalise the text to be adopted by the Plenipotentiaries.
• March 1995 New Delhi	Meeting of Plenipotentiaries of the Member States	The Member States of SASR formally adopted the Action Plan for the South Asian Seas Programme.
• The South Asian Seas Action Plan came into force in *January 1997*, when the Government of Bangladesh ratified the Final Act.		

The Structure of the South Asian Seas Action Plan

Objective and Priority Activities

The South Asian Seas Action Plan (SASAP) contains 3 Resolutions on the Implementation Strategy, Institutional Arrangement and Financial arrangements.

The overall *objective* of the SASAP is to protect and manage the marine environment and related coastal ecosystems of the region in an environmentally sound and sustainable manner. This objective is to be achieved through:

- Establishing and enhancing consultations and technical co-operation among States of the region
- Emphasising the economic and social importance of the resources of the marine and coastal environment and
- Establishing a regional co-operative network of activities concerning concrete subjects/projects of mutual interest for the whole region.

The Action Plan in addition to specifying the needs under the main components of Environmental Assessment, Environmental Management, Environmental Legislation & Institutional and Financial Arrangements, identified the areas where priority activities need to be developed for implementation under the Action Plan.

The priority activities are in the following four specific areas.

1. ***Integrated Coastal Zone Management:***

Preparation of coastal profiles, analysis and forecasting; Definition of goals and strategies; Formulation of integrated management plans and policies and implementation of plans.

2. ***Development and implementation of National and Regional Oil Spill Contingency Plan:***

Updating the South Asian Marine Pollution Emergency Plan; Assessment of infrastructure requirements and development of mechanisms to implement the plan; Assist the legislation, Prepare manpower development and training plans for monitoring; Information collection; and dissemination; Prepare technical guidelines for member states.

3. ***Human Resources Development through Strengthening Regional Centres of Excellence:***

Development of research programmes and projects; Sharing experiences in empowerment of local communities; Development of guidelines for multi disciplinary research in ICZM based on implementing pilot project; Training, institutional development and capacity building.

4. ***Protection of the Marine and Coastal Environment from Land-based Activities.***

Monitoring of coastal and marine pollution; Development of strategies for pollution control; Introduction of cleaner production technologies, training, institutional development and capacity building.

The successful implementation of the priority activities of the SASAP will depend on the following two key factors;

- Systematic planning and programming
- Realistic project identification, formulation and execution

Institutional Arrangements

For the implementation of the South Asian Seas Action Plan, a close co-ordination mechanism is needed between the relevant national, sub regional, regional and international institutions and organisations.

To ensure the harmonious and integrated evolution of each of the components of the Action Plan, SASAP identified the following categories of co-ordaining arrangements;

1. **The Intergovernmental Meeting of Ministers (IMM)**

Represented at Ministerial Level, the IMM meets once in every two years. IMM acts as the principal deliberative and review body responsible for determining policies, programmes and projects and modalities and methodologies for implementation.

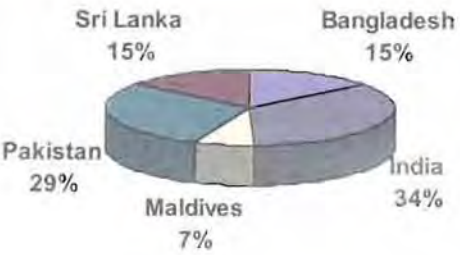
2. The Consultative Committee (CC)
Consists of the representatives of the Diplomatic Missions of the member countries resident in Colombo and the representative of the Focal Point of Sri Lanka. The main function is to provide the SAS Secretariat with policy guidance on the implementation of the decisions taken at the Meeting of Ministers. It is the duty of the Director General of SACEP to convene quarterly meetings of CC at the SACEP Secretariat.

3. The Secretariat
SACEP has been designated as the Secretariat for the implementation of the Action Plan, and the Director General of SACEP acts as the Head of the SAS Secretariat. SACEP is responsible for the technical and administrative co-ordination of the Action Plan, with the support and close co-operation of UNEP and other donor agencies. It will assist the IMM, the CC and the National Focal Points in the implementation of the priority activities stipulated in the Action Plan.

4. The National Focal Points
Each participating Government has identified a National Focal Point, for the efficient and well co-ordinated co-operation at national and regional level. The activities identified under the Action Plan will be implemented on project basis and in order to achieve successful implementation of projects, the National Focal Points will identify National Project Co-ordinators for each project.

Financial Arrangements

The Action Plan provides for the establishment of the South Asian Seas Trust Fund (SASTF) and for the Director General of SACEP to assume responsibility for administering the Trust Fund. All participating states contribute to the SASTF on an annual basis, according to the same ratio's in the SAARC Scale of Assessment agreed upon by SAARC member states (maximum of 35% & a minimum of 5%). This will meet the institutional costs of the Secretariat.



With reference to *funds required for the implementation of projects* identified under the Action Plan, the financial contribution by the member states will be on project basis and the countries involved in a particular project will contribute on a mutually agreed basis.

Financial contributions in support of implementation of the Action Plan may also come from donor agencies such as UN Organisations, GEF, ADB, NORAD and also from any other sources agreed by the Member States

First Intergovernmental Meeting of Ministers and the Project Cycle

The first **Intergovernmental Meeting of Ministers (IMM)** was held on 26th of March 1999 in Murree, Islamic Republic of Pakistan. Hon. Makhdoom Syed Ahamad Mahmud, Minister of State for Environment Local Government and Rural Development of Pakistan was elected as the Chairman, while senior officials from India, Maldives and Sri Lanka attended the meeting. It was also attended by Observers from the following UN Agencies and International Organisations: United Nations Environment Programme (UNEP), United Nations Industrial Development Organisation (UNIDO), Asian Development Bank (ADB), World Conservation Union (IUCN), & Intergovernmental Oceanographic Commission (IOC).

The Meeting reviewed the progress of the implementation of the Action Plan and decided on the institutional, organisational and financial aspects as well as policy and programme priorities for the implementation of the SAS Action Plan. During this meeting following ***Priority Projects were identified for the Programme Cycle 1999-2002,*** based on the current level of environmental problems prevalent in the region.

1. *Integrated Coastal Zone Management (ICZM)*
- Capacity building for the Control of Coastal Erosion in the context of Integrated Coastal Zone Management in the South Asian Seas Region - 1999-2002
- Integrated Management of the Environmentally Sensitive Coastal and Marine Ecosystems – 2001-2
- Assessment of Areas Vulnerable to Sea Level Rise in the South Asian Seas Region

2. *National and Regional Oil Spill Contingency Planning:*
- Capacity Building in the Development and Operation of National Oil Spill Contingency Planning –1999-2000
- Updating and Finalising of the SAS Oil Spill Contingency Plan –2001-2

3. *Human Resource Development through Strengthening Regional Centres of Excellence*
- Identification of Capacity Building Requirements in Coastal and Marine Environmental Protection & Management 1999-2000
- Strengthening the capacity of the Regional Centres of Excellence in the Protection and Management of Coastal Resources – 2001-2002

4. *Protection of the Marine and Coastal Environment from Land-based Activities*
- Identification and Assessment of the nature, extent, problems and causes of Marine Pollution from Land based Activities and the Preparation of a National Programme of Action for Control of Landbased Sources of Pollution 1999-2001
- Development of National Water Quality Criteria for Different Uses of Sea water - 2001-2
- Draft Project Proposal to GEF for a PDF Block B Grant

Endorsement of the Project Proposals

In March 2000 a Meeting of National Focal Points with the participation of Regional Consultants was held to review and endorse the Detailed Project Proposals presented at the IMM. With the preparation of these project proposals, the SAS Secretariat is now in a position to approach funding agencies for possible assistance in their implementation. The Norwegian Institute for Water Research (NIVA) has shown interest in supporting the project "Development of National Water Quality Criteria/Standards for Different Uses of Sea Water". Negotiations are currently underway between the SACEP and NORAD officials and the project is expected to start in mid 2001. SACEP is currently seeking assistance from the bi-lateral and multi-lateral donor community for the speedy implementation of the other proposed projects.

Oil Spill Contingency Plan For the Region

South Asia not only imports a significant percentage of its annual requirements of oil, most of which comes from the Arabian Gulf, but India, Maldives, Pakistan and Sri Lanka lie close to the main shipping route from the Gulf to the Far East, which carries a large tonnage of crude oil. Additional maritime oil spill risks arise from non-tanker shipping carriage of refined products, offshore exploration and production operations and the transfer of oil cargoes at sea.

With the exception of India, the South Asian countries do not have the capability to deal effectively with a spill of more than 50-100 tonnes in harbour or calm waters. They have no capability to deal with a serious spill at sea and would be able to do so only by calling on India and other countries to help them. Therefore the objective of the South Asian Oil Spill Contingency Plan is to provide a cooperative plan for mutual assistance from member states and organizations in the event of major oil spill incident, which exceeds the response capability of the national government or oil industry.

A draft *South Asian Marine Pollution Emergency Action Plan* (SAMPEAP) was prepared by the International Maritime Organization (IMO) in *1989*, based on the inputs received from the member countries. In order to reflect the present and future scenario, SAMPEAP update was necessary.

The ESCAP/UNEP/SACEP Intergovernmental Meeting on Capacity Building in Coastal Environmental Management in SAS Region, held in 1994 endorsed the Development and Implementation of National and Regional Oil Spill Contingency Planning as a priority element.

At a Meeting of the Regional Seas Secretariats held in *July 1999*, SACEP secured funding support from UNEP for updating and finalising of the South Asian Oil Spill Contingency Plan. This funding was pooled together with funding secured by the IMO for this activity, and the preparation of the Plan was undertaken as a joint IMO/UNEP/SACEP project.

As a first step in *November 1999*, an IMO consultant undertook a mission to assess the current status of the region. A Meeting of the Senior Officials of the five countries along with representatives from IMO, SACEP and other interested bodies was held in *December 1999* at Colombo to discuss the Draft South Asian Regional Oil Spill Contingency Plan. The draft Regional Contingency Plan amended at the meeting was subsequently circulated among the five countries for further consideration and comments. At this meeting it was also affirmed that National Plans are an essential foundation for a regional plan, and therefore national plans should be prepared or updated. *India* has already prepared their national plan in 1993 and has make regular revisions to it. The *Sri Lankan* Plan, which was prepared in 1995, was revised in 1998 and 1999 and received the Cabinet approval only in the latter part of the year 2000.The other three countries are in the process of finalising their Contingency Plans.In *December 2000*, IMO jointly with SACEP convened a High Level Meeting with the financial support from UNEP, to approve the draft Contingency Plan and the Memorandum of Understanding for Co-operation on the response to Marine Oil Spills in the South Asian Region.

Updating and finalising of the South Asian Seas Oil Spill Contingency Plan has now been completed. The Regional Oil Spill Contingency Plan will be formally adopted and the Memorandum of Understanding (MoU) signed at the 2nd Intergovernmental Meeting of Ministers of the South Asian Seas Programme scheduled for the latter part 2001.

SAS Regional Component of the Global Programme of Action (GPA) for the Protection of Marine Environment from Land-Based Activities

In November 1995, at an Intergovernmental Meeting held in Washington DC. 108 Governments declared their commitment to protect and preserve the marine environment from the harmful effects of land-based activities. The GPA's main purpose is to identify the sources of land-based pollution or harmful activities and to prepare regional, sub-regional and national priority action programmes on measures to reduce and alleviate them. This is in accordance with Part XI of the United Nations Convention on the Law of the Sea of 1982, which came into force in November 1994.

In the Washington Declaration, the governments declared their intention to co-operate on a regional basis to coordinate GPA implementation efforts. UNEPs Regional Seas Programme has been identified as an appropriate framework for facilitating implementation of the GPA, especially with regard to developing countries and Small Island Developing States. In this context, seven technical workshops of government-designated experts were convened by UNEP, during the period 1996-1998, to identify regional priorities and to develop regional programmes of action.

Main Pollutant Source Categories and the Lead Agency acting as the Clearinghouse

Sewage - WHO
Persistent Organic Pollutants (POPs) - UNEP
Heavy Metals - UNEP
Radioactive Substances - IAEA
Nutrients - FAO
Sediment Mobilization - FAO
Oils (hydrocarbons) -IMO
Litter - UNEP
Physical Alteration and Destruction of Habitats - UNEP

As a priority, the governments recommended the establishment of a clearing-house mechanism to facilitate the programme.

For the South Asian Region, SACEP is functioning as the central node and the member countries are represented by lead organisations nominated by states.

Following discussions SACEP had with GPA Secretariat in Nairobi during the UNEP Governing Council 1997, a Workshop on Implementation of The Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities in the South Asian Seas Region was held in Colombo, Sri Lanka from 20 - 23 October 1997.

Sedimentation of river water due to deforestation in Nepal

Representatives of five governments: namely India, Maldives, Nepal, Pakistan & Sri Lanka, World Health Organisation (WHO), International Atomic Energy Agency (IAEA), Global Coral Reef Monitoring Network (GCRMN) and International Ocean Institute (IOI) of India, attended the Workshop.

The major recommendations of the workshop were:

1. Development of National Action Plans for the implementation of the GPA by the member countries of SACEP as per agreed terms of reference.

2. Convening of a Regional Workshop to (i) inform member countries of SACEP of the National Action Plans (ii) review the finalised draft Regional Report on the land-based activities that impact on the marine and associated freshwater environment which is to be completed by SACEP with the assistance of UNEP and (iii) develop an agreed SACEP Regional Action Plan for Implementation of the GPA.

3. Mobilisation of financial resources for the implementation of the National Action Plans and the SACEP Regional Action Plan for Implementation of the GPA.

Special Service Agreement between SACEP and National Focal Points for the Preparation of National Plan of Action for the Implementation of the GPA commenced in August 1999.

Recognizing the role of the two land-locked nations, Bhutan and Nepal in any approaches, which gives consideration to management of coastal environment, which integrates with watersheds and sediment yield, the scope of the South Asian GPA activities was expanded to include these two nations.

Other than Bhutan and Maldives, the remaining countries have come up with their National Action Plans. Based on the National Action Plans a Regional Consultant has already prepared a draft Regional Overview plus a Draft Action Plan. A Regional Workshop will be convened during 2001 to review the Regional Overview and approve the Regional Action Plan.

Disposal of untreated Sewage on the beach at Chennai, India

OTHER PROJECTS UNDERTAKEN BY SACEP AND GPA

• UNEP/GPA STRATEGIC ACTION PLAN ON SEWAGE INVENTORY OF SOCIO-ECONOMIC OPPORTUNITIES AND CASE STUDIES

The Twentieth Session of UNEP Governing Council requested the Executive Director to explore the feasibility for UNEP to convene a global conference to address sewage as a major land-based source of pollution affecting human and ecosystem health. UNEP/GPA office developed a Strategic Action Plan on Sewage to meet the above request. The inventory of socio-economic opportunities and the identification of the socio-economic benefits related to sewage are considered as important components of the Strategic Action Plan. In this contest, UNEP requested SACEP as the Secretariat for the SASAP to provide an overview of socio-economic opportunities for addressing sewage and an overview with a compilation of land based activities from the South Asian Seas Region.
As a response, SACEP recruited a Regional Consultant to prepare the following two documents ;

1. An overview of socio-economic opportunities related to the protection of coastal and marine environment from land based sources of pollution particularly urban and domestic sewage in the South Asian Region
2. An overview with a compilation, description and analysis of case studies for the South Asian Region on socio-economic benefits from addressing sewage.

These have been successfully completed and included in the GPA web page.

• PHYSICAL ALTERATIONS AND DESTRUCTION OF HABITATS: GUIDELINES FOR ACTION AND THE ROLE OF STAKEHOLDERS

As a follow-up of the Regional Seas Coordinators Meeting in Monaco in November 2000, UNEP's GPA Secretariat has secured funding from Belgium for a project on GPA and Physical Alterations and Destruction of Habitats. The Belgian Government has confirmed that they are supporting this project. South Asian Seas Programme was one of 3 Regional Seas programmes that were invited to participate in this project.
The project focus is on economic sectors as the main threat to coastal and marine habitats. It is envisaged that 12 "small" sectoral regional meetings (4 in each region) will be convened. A regional consultant is to be selected in consultation with SASP and the GPA Office and he/she will have to organise most of these meetings and develop sectoral and regional specific checklists. At the global level, an officer in the GPA Office will be responsible for the whole project, and will assist the regional consultants in their task.

Current Priorities for Action in Integrated Coastal Zone Management

The participants of the International Tropical Marine Ecosystems Management Symposium (ITMEMS), in their renewed Call to Action on Corals, call upon governments, UN Agencies, bilateral and multilateral financial institutions, scientists, NGOs, local communities and the private sector to implement the Call to Action and the Framework for Action, taking into account the new annexes and Priorities for Action produced at ITMEMS. Further, they call upon the global community to recommit to urgent action to address the threats to coral reefs and tropical marine ecosystems. In reaffirming the Call to Action and Framework for Action ITMEMS participants have identified the following priorities for action to amplify and strengthen the efforts of all in the ICRI partnership:

1. **Ignorance is destroying coral reefs and related ecosystems.**
   - Launch multi-faceted, global-to-local-level mass marketing awareness campaigns to change the behaviour of people.
   - Bridge the gap between global knowledge and local action through creation of national coral reef initiatives.
2. **Pollutants, including sediments and nutrients from land-based human activities severely threaten the health of coral reef ecosystems.**
   - Develop and implement equitable, participatory, integrated coastal management plans that incorporate watersheds.
3. **Destructive and unsustainable fishing practices, such as cyanide, explosives, trawling and other forms of drag-netting, as well as over-exploitation are destroying coral reefs and related ecosystems.**
   - Commit to eliminating fishing practices that are not demonstrably sustainable, by promoting effective enforcement, alternative methods, and market incentives.
4. **Activities of the private sector, including tourism and trade of coral reef products, can protect or destroy coral reef ecosystems.**
   - Work with the private sector to foster appreciation of the value of coral reefs and encourage the private sector to use and protect coral reefs and related ecosystems in ecologically sustainable ways by introducing incentives, such as awards and accreditation for better environmental practices.
5. **An ecosystem approach to management, which conserves and restores the values and functions of coral reefs and related ecosystems.**
   - Implement an integrated approach to management that includes effective marine protected areas, including no-take zones, as a vital component in managing human activities within larger biogeographic frameworks.

6. **Recognition of traditional knowledge and management systems is vital.**
   - Increase the confidence and capability of communities to sustainably manage and conserve resources through capacity building and validation of their traditional practices. Integrate traditional and modern approaches to management for effective results.
7. **Projects have failed because they have not taken into account socioeconomic and cultural factors.**
   - Socio-economic and cultural factors are essential components in developing community-based management programs, for tailoring management to local conditions, and for demonstrating the value of tropical marine ecosystems to policy-makers and users.
8. **Managers and communities are not getting the information and management tools they need to make sound management decisions.**
   - Create and use networks of knowledge-based management systems through networks of people, ideas and information to promote science based management and public participation in that process.
9. **Data produced by the GCRMN, Reef Check and other innovative programs has proven the value of monitoring to global reef assessment and local management.**
   - Strengthen biophysical and socioeconomic monitoring efforts at all scales to improve management effectiveness; secure long-term financing.
10. **Lack of funding undermines actions to address threats to coral reefs, monitor their health, and assess the impact of management practices.**
    - Develop financing in a strategic manner at local, regional and international levels.
11. **Coral Reef Ecosystems are the life-support systems for the existence of small island developing states and many coastal communities of developing tropical countries**
    - Urge governments that support the goals of ICRI, to promote consideration of this report during the next session of the UN Commission on Sustainable Development (CSD), as part of its review of Small Island Developing States, Oceans and Sustainable Tourism issues in 1999. The CSD is urged to recognise this vital relationship and support immediate and effective action to understand and address the threats to these ecosystems.
    - Urge governments to promote ICRI goals within the Ramsar Convention, in the implementation of the Convention on Biological Diversity and its Jakarta Mandate as well as other relevant international and regional instruments

Regional Training for Management of Protected Areas and Coral Island Ecosystems in the Indian Ocean

Strengthening of national and regional capabilities and co-operation for the management of protected areas has been identified as one of the activities, which would serve to strengthen the ability of the Governments to adopt appropriate environmental policies in accordance with the SAS Action Plan. In view of this, the short training course was developed by SACEP with the help of a panel of Experts at a Steering Committee meeting held in Sri Lanka in July 1997. Funding for the project was provided by Norwegian Agency for Development Co-operation (NORAD) and the Course Material was developed with technical assistance from Great Barrier Reef Marine Park Authority (GBRMPA). The targeted audience was potential and actual middle level coastal and marine protected areas administrators/managers and practitioners. The first training course was held in Republic of Maldives from 3rd - 10th September 1998 and the following table indicates, objectives and the contents of the seven modules prepared for the training course.

Topic of the Module	Objective	Contents
1. Coastal & Marine Ecosystems and Ecological Process	To provide an understanding on the types of coastal and marine ecosystems and the nature of impacts affecting them	• Ecosystem types & inter-relationships • Natural variability • Anthropogenic influences
2. State of Environment Reporting - Key Indicators for Management	To provide an understanding on key indicators for the State of Environment Reporting and appreciate the role of monitoring in management decision making & review.	• Purpose of SoE Reporting • Biodiversity conservation reporting needs • Global & Regional reporting mechanisms • Monitoring techniques
3. Stakeholder involvement in Management of Coastal and Marine Protected Areas	To provide an understanding on how to recognise the need for, and mechanisms of, involvement of stakeholders in coastal and marine protected area management.	• The importance of stakeholder involvement in management • Techniques for stakeholder identification and involvement
4. Planning for Coastal and Marine Protected Areas	To provide an understanding on different approaches to coastal & marine protected area management and to recognise the steps for identification & declaration of marine protected areas.	• The range of options (e.g. prescriptive / community based • Conventional criteria for site identification & nomenclature • Concepts, types and selection of MPA's • Planning techniques
5. Environmental Impact Assessment in Coastal & Marine Protected Areas	To provide an understanding on how to relate the principal components of EIA and be able to identify whether a project proposal requires a formal EIA approach	• Justification of EIA (Biodiversity Convention) • The need for and component of EIA • Project screening

6.	Tools for Coastal & Marine Protected Areas Management	To provide an understanding on how to identify and understand the roles of the major tools for management.	• Decision support systems (e.g. GIS) • Surveillance and enforcement • Legislation • Cost benefit analysis • Funding options and budgeting
7.	Programming for Operational Management of Coastal and Marine Protected Areas	To provide an understanding on how to prepare an outline for a plan for operational management of a coastal or marine protected area.	• Programme development & review • Staff management & training • Establishing a field presence • Fieldwork procedures and protocols • Dealing with the public

Environmental Education and Training for Sustainable Development

The South Asian Seas Region

The South Asian Seas Region has an extensive system of diverse marine and coastal habitats, which support some of the richest concentrations of biodiversity in the world. These vital ecosystems are currently under severe threat due to the combined impact of population pressure, poverty, over exploitation and other destructive human activities. It has been increasingly recognized that an integrated and holistic approach is necessary for the sound and sustainable management of these invaluable life support systems. In this context Environmental Education and Training assumes a pivotal role.

Education is the Key to Sustainability

Environmental Education and Training (EE&T) has been recognised as an essential element in the sustainable development process by all member states of the South Asia Co-operative Environment Programme (SACEP) and the South Asian Seas Programme (SASP). In fact EE&T has been one of the 14 priority subject matter areas of SACEP since its inception on the 7th of January 1982. Undoubtedly, the launching of the EE&T Action Plan by SACEP with UNEP assistance signifies another positive step in guiding South Asia to its ultimate goal of sustainability.

The Most Pressing Problems

Some of the most pressing problems of South Asia include air and water pollution; depletion of both renewable and non-renewable resources; haphazard solid waste disposal; unsustainable agricultural practices; loss of biodiversity; unplanned urbanisation; poverty; population pressure; over consumption and wasteful production. More often than not industrial growth and urbanisation in the region have been at the cost of the environment.

Meeting the Challenges

The challenges to sustainable development are staggering in number, scale and complexity. The region needs to develop and to modernise in less wasteful ways than is the current paradigm, without losing the sound social and cultural values and practices which underpin the traditional way of life. The region needs to find alternative paths to an alternative goal; a goal which ultimately is the true goal of development; an environmentally sound and sustainable quality of life, which is socially just and equitable.

Education for Sustainable Development

Sustainable Development is a process of change in which the exploitation of resources, direction of investment, orientation of technological development and institutional changes are made consistent with present as well as future social and economic needs. An effective educational system is the fundamental prerequisite for sustainable development. The core themes of education for sustainability include lifelong learning, interdisciplinary education, multicultural education, partnerships and empowerment.

Needs and Priorities

The need for environmental education and training has been explicitly recognised by government policies of the countries of the South Asian region, and in many cases, policy directives exist for the incorporation of Environmental Education and Training into mainstream education. Many countries in the region have already initiated the process of re-orienting formal education to meet the needs of a sustainable future. They have also recognised the need for creating widespread environmental awareness among the general population, as well as sensitising key groups of decision-makers. Training for better environmental management is another area, which the countries of the region are turning their attention to. Many governments, NGOs, and regional and international agencies in the region are creating systems and structures for training key professionals in a range of environmental skills, tools and techniques for sustainable development.

Aims and Objectives

The primary purpose of the Action Plan is to present an overall regional framework to educate and train people to deal with major environmental problems such as degradation of ecosystems, depletion of natural resources, loss of biodiversity, soil, water and air pollution and haphazard urbanisation and industrialisation. Also, it is aimed at sensitising people on the need to eliminate the root causes of environmental degradation such as poverty, population pressure, overpopulation, wasteful production, human greed and underdevelopment. Above all, it attempts to focus on the need to move forward from the traditional environmental protection and conservation approach to an integrated and holistic sustainable development paradigm.

Target Areas

The Action Plan has been specially directed to resolving issues in four critical target areas; namely; formal and non formal education; planning and decision making; public awareness and peoples participation; and in information, networking, communication and collaboration. The implementation strategy has spelt out 13 priority actions for project formulation and implementation during the period 2000 to 2005.

By: K.H.J. Wijayadasa, UN Consultant in Environmental Management

Regional Approach for Protecting the Coral Reefs

GCRMN South Asia Node: Phase 2 Activities (December 1999- April 2002)

The South Asia node of the Global Coral Reef Monitoring Network (GCRMN) entered a second phase of activities in December 1999 following the successful completion of Phase 1 in March 1999. Support for the node comes from the Department for International Development (DFID) of the UK with GBP327,400 as an accountable grant to IOC-UNESCO over 2.5 years. The 4 core activities of the node are:

1. **Demonstration site monitoring**

Demonstration site monitoring is currently underway in all three countries (Mahatma Gandhi National Park, Andaman Islands, India; Agatti & Kavaratti Islands, Lakshadweep, India; Vaavu Atoll, Maldives; and Unawatuna & Kandakuliya, Sri Lanka). GCRMN support has targeted socio-economic monitoring, while national government and other donor funds (e.g. CORDIO) have supported biophysical monitoring at these sites. Demonstration site monitoring will be linked to coral reef management through the development of community level management plans at demonstration sites.

2. **Training**

– **Biophysical survey design, data analysis and reporting training:**

Regional training was undertaken in Chennai, India in May 2000 and aimed to provide the participants with a comprehensive grounding in the knowledge and skills needed to design ecological and environmental surveys, a range of statistical techniques to analyse the data collected and written and oral skills to present the findings. 21 participants took part [11 Indian, 5 Maldivian & 5 Sri Lankan].

– **Socio-economic monitoring training:**

Four national on-site training workshops in socio-economic monitoring have taken place in Sri Lanka (November2000), Maldives (January2001), Andaman Islands, India (February2001) and Lakshadweep, India (April2001). These workshops have targeted demonstration site monitoring activities and ground level monitoring staff.

– **GCRMN database training:**

Database training is currently planned at 4 database centers in the region responsible for maintenance of national coral reef database (National Institute of Oceanography, India west coast; Zoological Survey of India Marine Biological Station, India east coast; Marine Research Centre, Maldives; and National Aquatic Resources Research & Development Agency, Sri Lanka). Training will focus on data entry procedures and protocol for the GCRMN national databases.

3. **Database development**

The node is currently designing national coral reef databases to collate biophysical and socio-economic monitoring data and provide support for coral reef management decision-making. Following database training, database centers will be supported to undertake a period of data entry. It is anticipated that all three countries will have functional national databases by September 2001 and that these will be combined into a regional database for release on CD by December 2001.

4. **Reporting**

Regional and national reports on the status of coral reefs, monitoring and management were presented during the 9th International Coral Reef Symposium at Bali in October 2000 by participants from the region (8 India, 4 Maldives, 3 Sri Lanka).

By: Emma Whittingham
South Asia Regional Co-ordinator, GCRMN

A Programme created to respond to the degradation of coral reefs throughout the Indian Ocean

The CORDIO is a program created to respond to the degradation of coral reefs throughout the Indian Ocean. The extensive bleaching and mortality of corals that occurred during 1998 initiated the programme. CORDIO is supported by Sida (Swedish International Development Cooperation Agency), the World Bank, FRN (Swedish Council for Planning and Coordination of Research), MISTRA (Foundation for Strategic Environmental Research) and WWF (Worldwide Fund for Nature).

Activities within the program are conducted in Kenya, Tanzania, Mozambique, Madagascar, Seychelles, Reunion, Comoros, Mauritius, Maldives, India and Sri Lanka and co-ordinated from subregional secretariats in Kenya, Sri Lanka and Reunion.

Scientists and experts from the region are implementing a number of monitoring and research projects supported by CORDIO. Projects are focused on investigating ecological and socio-economic aspects of coral reef degradation in the coastal areas of the Indian Ocean region. In addition, the program investigate mitigation or rehabilitation measures and study the natural patterns of recovery in coral reef communities. Futhermore, CORDIO support the establishment of long-term monitoring programs that will facilitate the continuous assessment of the status of coral reefs in the central and western Indian Ocean. In addition, pilot projects will be initiated that aim to identify and provide alternative livelihoods to those communities that have been adversely affected by the extensive coral morality In several of the participating countries certain projects under CORDIO are being conducted by M.Sc. and Ph.D.candidates, thereby enhancing the level of local expertise. Implemented projects within the South Asian Seas Region:

1. Impact of coral bleaching on reef communities in Sri Lanka.

2. Monitoring and assessment of socio-economic aspects of coral bleaching and degradation in Sri Lanka.
3. Alternative livelihoods for people dependent on coral resources in Sri Lanka.
4. Socio-economic impacts of the 1998 coral-bleaching event in Sri Lanka.
5. Reef Recovery Processes: Evaluation of succession and coral recruitment in the Maldives.
6. Assessing bioerosion and its effects on reef structure following a bleaching event in the Maldives.
7. Building a data base: The economics of coral reef deterioration with special reference to bleaching.
8. Socio-economic impacts of the 1998 coral bleaching event in the Maldives.
9. Recovery and future monitoring.
10. Assessment of the effects of coral mortality on reef communities.
11. Socio-economic implications of coral bleaching in India.
12. Remote sensing as a tool for assessing reef damage.

Please refer to website ***http://www.cordio.org/frameset.htm*** for further details.

International Conventions Related to Sustainable Utilisation of Coastal and Marine Resources

1. **The United Nations Convention on the Law of the Sea (UNCLOS):** The Convention establishes national sovereignty over marine resources lying within coastal waters and was opened for signature on 10 December 1982 in Montego Bay, Jamaica. This marked the culmination of more than 14 years of work involving participation by more than 150 countries representing all regions of the world, all legal and political systems and the spectrum of socio/economic development. The Convention, which entered into force on 16 November 1994, embodies and enshrines the notion that all problems of ocean space are closely interrelated and need to be addressed as a whole. It obligates Parties to protect and preserve the marine environment by cooperating regionally and globally. To address certain difficulties with the Convention's seabed mining provisions that had been raised, primarily by the industrialized countries, the Secretary-General convened a series of informal consultations which culminated in the adoption, on 28 July 1994, of the *Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea*. The Agreement entered into force on 28 July 1996.
   Web site: ***http://www.un.org/Depts/los/index.htm***

2. **The Convention of Biological Diversity (CBD):** The CBD was signed in 1992 at the UN Conference on Environment Development in Rio de Janeiro and ratified in 1993. It is a comprehensive, binding agreement covering the use and conservation of biodiversity and provides a forum for continuing international dialogue on biodiversity-related issues through the annual Conferences of the Parties (COPs).

   The issues on conservation and sustainable utilization of marine and coastal resources are dealt in the policy decision of the 1995 COP meeting held in Jakarta. The Jakarta Mandate is a global consensus on the importance of marine and coastal biological diversity and is a part of the Ministerial Statement on the implementation of the Convention on Biological Diversity. The Regional Seas Conventions and Action Plans are considered to have a major role to play in the promotion of the Jakarta Mandate at the regional level.
   Website : http://www.biodiv.org

3. **The United Nations Framework Convention on Climate Change (UNFCC):** The UNFCC is the centerpiece of global efforts to combat global warming and was adopted in 1992 at the Rio earth Summit. Its ultimate objective is the stablilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.
   The **Kyoto Protocol** to the UNFCC strengthens the international response to climate change and was adopted by consensus at the third session of the Conference of the Parties (COP-3) in December 1997. The Protocol contains new emission targets for developed and developing countries.
   Website : http://www.unfccc.de

4. **International Maritime Organisation (IMO) Conventions on the prevention of pollution of the marine environment:** The most important convention regulating and preventing marine pollution by ships is the IMO International Convention for the Prevention of Pollution from Ships of 1973, as modified by the protocol of 1978 (MARPOL 73/78). It covers accidental and operational oil pollution as well as pollution by chemicals, goods in packaged from, sewage, garbage and air pollution. IMO's *Intervention* Convention affirms the right of coastal state to take measures on the high seas to prevent, mitigate or eliminate danger to its coastline from a maritime casualty. *The International Convention on Oil Pollution Prevention (OPRC)*, 1990 provides a global framework for international co-operation in combating major incidents or threats of marine pollution. A protocl to this convention (*HNS Protocol*) covers marine pollution by hazardous and noxious substances.
   IMO also has Secretariat responsibilities for the *Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (LDC)*, 1972, which is generally known as the London Convention. The Marine Environment Protection Committee (MEPC) is IMO:s senior technical body and is aided in its work by a number of sub-committees.
   Website: http://www.imo.org

5. **Convention on Wetlands of International Importance, especially as Waterfowl Habitat (Ramsar Convention):** The convention came into being in 1971 and seeks to promote the worldwide conservation and the "wise use" of wetlands through national and international actions. The treaty is based on the rationale that progressive encroachment on and loss of wetlands constitute serious and sometimes irreparable environmental damages that must be avoided. There are presently 119 Contracting Parties to the Convention, with 1023 wetland sites

including shallow coastal and marine areas, totaling 74.9 million hectares, designated for inclusion in the Ramsar List of Wetlands of International Importance. The Ramsar Secretariat is located at IUCN headquarters in Switzerland.
Website: *http://www.ramsar.org/*

6. **The Basel Convention on the Transboundary Movement of Hazardous Wastes:** This global agreement, ratified by 135 member countries and the European Union (as of April 2000), for addressing the problems and challenges posed by hazardous waste was adopted in 1989 and entered into force in 1992. Its purpose is to control and reduce transboundary movements of specified wastes, minimize the generation of hazardous wastes and assist developing countries in the environmentally sound management of such wastes. The Secretariat, in Geneva, Switzerland, facilitates the implementation of the Convention and related agreements. It also provides assistance and guidelines on legal and technical issues, gathers statistical data, and conducts training on the proper management of hazardous waste. The Convention makes special reference to the Parties responsibilities with respect to the protection and preservation of the marine environment in the context of the Convention.
Website: *http://www.basel.int*

7. **Convention on Migratory Species (also known as CMS or the Bonn Convention):** The CMS aims to conserve terrestrial, marine and avian migratory species throughout their range. It is one of a small number of intergovernmental treaties concerned with the conservation of wildlife and wildlife habitats on a *global* scale. Since the Convention's entry into force on 1 November 1983, its membership has grown steadily to include 70 (as of 1 October 2000) and these members agree to restrict harvesting, conserve habitats and control other adverse factors. The Convention has two appendices: Appendix I lists endangered migratory species while the Appendix II lists migratory species to be subject to agreements. The species covered include marine mammals, sea turtles and sea birds. Several Agreements have been concluded to date under the auspices of CMS;

   - Cetaceans of the Mediterranean and Black Seas
   - Small cetaceans of the Baltic and North Seas
   - Seals in the Wadden Sea
   - African-Eurasian migratory water birds
   - Marine turtles
   - Bats in Europe
   - The Siberian Crane
   - The Slender-billed Curlews

   Website: ***http:/www./wcmc.org.uk/cms.htm***

8. **World Heritage Convention:** This International agreement, established by UNESCO in 1972, allows contracting states to nominate sites within their territory to the World Heritage Committee for consideration for designation as natural and cultural sites of "outstanding universal value". To date more than 150 states have adopted the World Heritage Convention and it has inscribed 630 sites on the list. Many coastal and marine sites such as Australia's Great Barrier Reef, Ecuador's Galpagagos Islands and Costa Rica's Cocos Island Natural Reserve are among those inscribed. Efforts are now under way to draft an international convention on the protection of the underwater cultural heritage.
   Website:*http://www.unesco.org/whc/nwhc/pages/homepage.htm*

9. **International Convention for the Regulation of Whaling:** The 1946 International Convention for the Regulation of Whaling provides for the proper conservation of whale stocks and thus make possible the orderly development of the whaling industry. It contains a provision that the utilization of whale stocks should be based on "scientific findings' so that optimum levels of whale stocks could be achieved and maintained.
   Website:
   http://ourworld.compuserve.com/homepages/iwcoffie/Convention.htm

10. **Convention on International Trade of Endangered species of Wild Fauna and Flora (CITES):** The international wildlife trade, worth billions of dollars annually, has caused massive declines in the numbers of many species of animals and plants. The scale of over-exploitation for trade aroused such concern for the survival of species that an international treaty was drawn up in 1973 to protect wildlife against such over-exploitation and to prevent international trade from threatening species with extinction. The CITES entered into force on 1 July 1975 and now has a membership of 152 countries. These countries act by banning commercial international trade in an agreed list of endangered species and by regulating and monitoring trade in others that might become endangered.
    Species are listed in three appendices according to their conservation status. Appendix I covers endangered species, trade in which is to tightly controlled; Appendix II covers species that may become endangered unless trade is regulated; Appendix III covers species that any party wishes to regulate and requires international cooperation to control trade; and Appendix IV contains model permits. Marine mammals are found on all three appendices. Other listed marine animals include sea turtles, dolphins and sharks.
    Website: *http://www.cites.org*

NEWS FLASH

Environmental Issues take Center Stage at IMO Meeting

At the 46th session of the Marine Environment Protection Committee (MEPC) Meeting held in April this year, delegates from 158 IMO member states agreed to a number of important new measures aimed at further increasing protection of the marine environment from pollution.

The committee finalized a draft convention to eliminate the use of toxic anti-fouling paints on ships, which is scheduled to be adopted at a Conference in October. The existing anti-fouling paints used by ships to prevent barnacles and other marine life attaching themselves to ship's hull works by slowly leaching metallic compounds into the sea and studies have shown that these compounds persist in the water, killing sea life and possibly entering the food chain.

The essence of the proposed Convention is that ships should no longer be allowed to apply organotin compounds after 1 January 2003, leading to a complete ban by 1 January 2008.

The MEPC also continued working towards convening a Diplomatic Conference to adopt a Convention on the management and control of ballast water in 2003 as the management of ballast water has become an important issue in international efforts to reduce pollution from ships. When a ship takes on ballast water, it may also inadvertently ingest a soup of microscopic aquatic organisms, some of which may be toxic, others potentially harmful if removed from their own local ecosystem and introduced in to another when discharged. Alien species that have no natural enemies can reproduce dramatically and cause tremendous damage.

Another important outcome of the meeting is the production of a timetable that will see most single-hull oil tankers eliminated by 2015 or earlier. Double-hull tankers offer greater protection of the environment from pollution in certain types of accident. All new oil tankers built since 1996 are required to have double hulls.

MEPC 46 approved new draft Guidelines for the Designation of Special Areas under MARPOL 73/79 and new draft guidelines for the Identification of Particularly Sensitive Sea Areas (PSSAs). There are currently two designated PSSAs: the Great Barrier Reef of Australia and the Sabana-Camaguey Archipelago in Cuba.

Please refer to web site http://www.imo.org/Newsroom for further details.

First Intergovernmental Review Meeting on the Implementation of the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities

The above Meeting will be held in Montreal, Canada between 26-30th November 2001, with the goal of securing commitments from a full range of partners to advance GPA implementation, based on defined specific activities, targets, and relevant stakeholders at the national, regional, and global level.

The Specific Products of the Intergovernmental Review Meeting will be:

- ***A work programme for 2002-2006*** to further the implementation of the GPA, with identification of specific priorities and activities, targets and financial implications to be undertaken by Governments, international and regional governmental and non-governmental organizations, private sector, international financing institutions, regional banks and commissions, civil society, other major groups and the UNEP/GPA Coordinating Office.
- ***A Ministerial/High Level Declaration*** adopted by Governments and other stakeholders and major groups addressing concrete action required to further the implementation of the GPA.
- ***Endorsement of the "Recommendations for Decision-Making on Municipal Wastewater"***, and agreement that a similar approach taken in preparing the GPA strategic action plan on municipal wastewater be used to address other GPA pollutant source categories.
- ***Sharing experience and expertise*** among Governments and a wider range of stakeholders in support of GPA implementation.

The IGR will bring together senior representatives from over 100 governments, a large number of international organizations, global and regional non-governmental organizations, and the private sector. These partners are the essential players involved in both the current and future implementation of the GPA. Please visit website www.gpa.unep.org for further information.

The Global Conference on Oceans and Coasts at Rio+10

The Global Conference on Oceans and Coasts at Rio+10: Assessing, Progress, Addressing Continuing and New Challenges, will be held at UNESCO headquarters in Paris, from December 3-7, 2001, with the objective of providing an overall assessment of progress achieved on oceans and coasts since the Earth Summit and to provide inputs to the discussion by governments which will take place in June 2002.

The Major Conference topics are as follows:

a. Implantation and harmonization of the major ocean related agreements (e.g., Law of the Sea, Biodiversity, Climate Change)
b. Implementation of the Rio Principles on Environment and Development
c. Implementation of the oceans and coasts chapter of Agenda 21
d. Status of marine biodiversity, critical habitats and species at risk
e. Climate change effects in coastal areas
f. Small island issues
g. Cross-cutting issues and institutional framework for ocean governance
h. Addressing persistent challenges with renewed commitment
i. Emerging issues in coastal and ocean management
j. Addressing new challenges
k. Issues for the global agenda on oceans and coasts in the next decade

The two planned conference outputs are:

1. The publication of Conference findings
2. The publication of a book and special issues in several international journals

Please refer to website http://ioc.unesco.org for further details.

UNEP's New Initiative on Coral Reefs

The United Nations Environment Programme Coral Reef Unit was established on 1st December 2000, with the purpose of providing leadership to international efforts to save the planet's threatened coral reefs.

The new unit will be responsible for UNEP's participation in the International Coral Reef Action Network (ICRAN), a partnership of international organizations involved in coral reef science and conservation, created with the financial support of the United Nations Foundation.

Through the co-ordinationg units of UNEP's Regional Seas Conventions and Action Plans in the Caribbean, the Pacific and the Indian oceans, ICRSN will work to demonstrate better reef management practices through practical action in the field, as well as to improve reef assessment and increase public awareness of the importance of reef resources.

The Coral Reef Unit is part of UNEP's Division of Environmental Conservation. It will work closely with the Division of Early Warning and Assessment and UNEP DTIE.

Source: UNEP (October-December 2000): Industry and Environment, Volume 23, No.4 and Website http://www.unepch/coral/crunit.htm

Indian Ocean – South-East Asia Marine Turtle MoU Concluded under Convention of Migratory Species

Co-operation efforts to conserve globally threatened marine turtles received a boost in last July with the adoption of the text of a Memorandum of Understanding (MoU) on the Conservation and Management of Marine Turtles and their Habitats of the Indian Ocean and South- East Asia. The memorandum is the second of its kind to be concluded under auspices of the Convention of Migratory Species.

Twenty-four States were represented at the negotiation session, hosted by the Malaysian Department of Fisheries from 11-114 July 2000.

The MoU recognises that marine turtles migrate and disperse over vast distances, which makes their survival dependent on their conservation over a wide area and in a wide range of marine and coastal habitats. It acknowledges that human activities that may threaten marine turtle populations directly or indirectly include harvesting of eggs and turtles, inappropriate hatchery operations, destruction or modification of habitats, coastal development, pollution, fishing activities, mariculture and tourism.

Common name	Scientific Name
1. Loggerhead turtle	*Caretta caretta*
2. Olive ridley turtle	*Lepidochelys olivacea*
3. Green turtle	*Chelonia mydas*
4. Hawksbill turtle	*Eretmochelys imbricata*
5. Leatherback turtle	*Dermochelys coriacea*
6. Flatback turtle	*Natator depressus*

The objective of this Memorandum of Understanding is to protect, conserve, replenish and recover marine turtles and their habitats, based on the best scientific evidence, taking into account the environmental, socio-economic and cultural characteristics of the signatory States.

The Meeting agreed to work towards finalising a Conservation and Management Plan at the next intergovernmental session to be held in June 2001 in Manila, where the Memorandum of Understanding will be open for signature. The Memorandum further envisages the development of sub-regional plans, where these are not already in place; to give effect to the specific actions needed to conserve the region's marine turtles and their habitats.

Please refer to web site: http://www.wcmc.org.uk/cms/ for further details

Asian Wetland Symposium2001: Bring Partnerships into Good Wetland Practice : 27-30th August, Penang, Malaysia

Wetlands are among the most valuable natural ecosystems bringing benefits to millions of people in the Asia-Pacific region and due to various unsustainable practices, these unique systems are alarmingly being depleted. The above symposium is organized in order to provide avenues for discussion in matters pertaining to wetland management, conservation and restoration in region.

The symposium will provide a much-needed platform to achieve the following objectives:

- To review and discuss the trends and emerging issues in the wise use of wetlands, their resources and biodiversity in the Asia- Pacific region.
- To formulate guidelines and recommendations of good practices in wetland management and conservation in the region.
- To explore opportunities for developing strategic cooperation between universities and research organizations and developing collaboration and regional capacity in wetland conservation.
- To enhance public awareness on importance of wetlands, their resources and biodiversity for the region.
- To empower indigenous/local people/communities on wise use of wetlands, their resources and biodiversity in the region.

In recognition of the importance of wetlands in the Asia-Pacific Region especially in Malaysia, The Hon. Prime Minister of Malaysia, Dr Mahathir Mohammad will be invited to officiate at the Symposium.

Deadline for Submission of abstracts, Registration and Exhibition booth confirmation is 31st May 2001.

Refer to web site: http://aws2001.domainvalet.com

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To Be Continued in the next Issue.....

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3. Maldives	Mr. Mohamed Khaleel, Director Environmental Affairs, **Ministry of Home Affairs, Housing & Environment**, Male. Fax: 960 324739, Tel: 960 - 324861
4. Pakistan	Mr. Mahboob Elahi, Director General, **Ministry of Environment, Local Government and Rural Development**, 7th Floor, UBL Building, Jinnah Avenue, Blue Area, Islamabad. Tel: 92 - 51 920 1145, Fax: 92 - 51 920 2211
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We welcome, articles, news items, letters and comments from the readers for publication in the coming issues.

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STATEMENT BY
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SACEP has struck an enduring and mutually reinforcing partnership with the United Nations Environment Programme (UNEP) and it's Regional Office for Asia and the Pacific especially in areas such as the South Asian Seas Programme, Environmental Law, Environmental Assessment and Information Management, Environmental Education and Training and Environmental Management. Through this partnership we have successfully brought to the countries in South Asia the unique expertise and experience of UNEP in environmental protection, management and sustainable development.

At present, South Asia is at the crossroads between old established and newly emerging environmental problems. It is already evident that the consequences of these problems do not respect any geographical boundaries. They cross the boundaries affecting the ecological balance. For the solution of many of the common and transboundary issues facing the region, collaborative action among countries is necessary.

Conservation and protection of natural resources coupled with their sustainable use is the only solution to the challenge of harmonising the imperatives of nature conservation on the one hand and the need for economic development and prosperity on the other. Solving this problem can only be meaningfully achieved through co-operation at all levels, particularly at the regional level. I am happy to inform this meeting that SACEP in collaboration with UNEP, ESCAP, NORAD, IMO and ADB is responding to this challenge with a country driven programme of work on assessment of environmental resources, preparation of state of environment reports, preparation of action plans to combat air pollution and transboundary effects, conservation of coastal and marine ecosystems and environmental capacity building.

UNEP has made a lasting contribution to the environmental safety and stability of our sub region through the initiation and continued support afforded to the South Asian Seas Programme. The South Asian Seas region has an extensive system of diverse marine and coastal habitats, which are now under serious threat due to the dumping of solid waste, sewage, industrial waste and oil pollution. Even though UNEP on a proposal by SACEP designated the South Asian Seas region as a separate entity in 1981; the South Asian Seas Action Plan saw the light of day only in 1995. It was finally ratified by all the 5 member states in 1997. Since its ratification considerable progress has been made. Already a portfolio of 9 projects has been developed with UNEP assistance. We need funding assistance for their implementation and solicit the support of UNEP in finding donors. Also much work and effort have gone into the development of a Regional Oil Spill Contingency Plan for South Asia with assistance from UNEP and IMO and this would soon be a reality in the immediate future. Similarly the South Asian Seas Programme has worked very closely with the GPA Secretariat in The Hague and many meaningful activities have taken place in connection with the implementation of the Washington Declaration on Marine Pollution from Land-based Activities.

This brings me to the most critical challenge of our times, which is poverty reduction. Unfortunately UNEP has not yet addressed this issue comprehensively. Already the Asian Development Bank has declared poverty reduction as its overarching goal and the central focus of ESCAP is poverty alleviation. In South Asia almost all the environmental problems have their roots in poverty, population pressure, over exploitation, wasteful production and human greed. Paradoxically, underdevelopment as well as the haphazard development process is also responsible for this precarious situation.

There is an urgent need to discard old ways of thinking, deciding and executing and embrace new ways if this malaise is to be resolved. There is also a need to make poverty reduction the central theme of sustainable development through people centred development. A truly pro-poor sustainable development model should take into account the need to improve the quality of life of the poor, draw them to the centre stage of sustainable development make them partners in progress and restore equity and social justice.

This is easier said than done. How can this be accomplished? The 3 parameters of poverty reduction, social mobilisation and sustainable development should be fully integrated.

The poverty reduction drive should be coupled with a moral crusade for changing the mindset of people and for the restoration of social values. Today's values and attitudes of consumerism and acquisitiveness should give way to those that are more humanistic, accommodating and of the "caring and sharing" type. A people-centred poverty reduction strategy should be worked out wherein social mobilisation, empowerment of people, participatory development and equity and equality considerations are given prominence. Macroeconomic reforms should be undertaken to make markets more effective and efficient in allocating resources. There should be complementary changes in government's monetary, regulatory and fiscal policies. Elimination of subsidies and allowing for externalities will be very vital.

A massive awareness, education, training and skills development program focused on poverty, equity, environment and growth should be launched. The conventional approach to governance and administration should be drastically changed to a poverty reduction oriented, pro-poor and people centred development outlook and outfit respectively.

UNEP has a key role to play in this global crusade of poverty reduction and social mobilisation for sustainable development. UNEP being the lead agency in the world for environmentally sound and sustainable development as well as the principal catalytic and co-ordinating body in this field should set the tone as well as the pace today; for tomorrow may be too late; considering the volatile nature of poverty and the rate of environmental degradation.