

UNEP Contribution to Capacity Building For Division of Ocean Affairs and Law of the Sea Report

Below are a selection of projects and activities which UNEP has participated in and funded, in relation to supporting capacity building for marine science in 2009.

1. UNEP Administered Regional Seas Programmes

Several Regional Seas Programmes have been involved in capacity building activities in 2009. This includes capacity building for government and researchers in ecosystem based management, socio-economic valuation of ecosystem services, the valuation of conservation activities, the cumulative effects of human activities, climate change adaptation and marine spatial planning. Some of the training also aims at addressing the challenge of improving the link between science and policy.

One example of this is in the project 'Addressing land-based activities in the Western Indian Ocean (WIO-LaB)' which seeks to tackle some of the major environmental problems and issues related to the degradation of the marine and coastal environment resulting from land-based activities (LBA) in the Western Indian Ocean (WIO) region. It is funded by the countries of the WIO Region, the Norwegian government, UNEP, and the GEF, and runs from 2005-2010. The project objectives are to:

1. improve the knowledge base, and establish regional guidelines for the reduction of stress to the marine and coastal ecosystem by improving water and sediment quality;
2. strengthen the regional legal basis for preventing land-based sources of pollution;
3. develop regional capacity and strengthen institutions for sustainable, less polluting development.

A lack of adequate technical capacity has been recognised as a restricting factor for many of the region's government, in particular relation to marine science for example in the implementation of the water and sediment quality monitoring programmes. Therefore, developing national capacity is a key focus of the project.

2. Making Mainstreaming Work: driving national action to address marine and coastal challenges

The UNEP/GPA Coordination Office has developed an analytical framework, guidelines and checklist for the mainstreaming of marine and coastal issues into national planning and budgetary processes. To assist governments in the process the GPA organised a series of regional meetings to promote this approach. Workshops were held in the Philippines and in Ecuador, where links between the management of coastal and marine resources, poverty reduction and economic growth, were explored. Countries that embarked on the development of a coherent policy framework to address marine and coastal challenges shared their mainstreaming experiences.

3. Wastewater Management Training

This training focused on capacity building of national and local stakeholders in the use of scientific, technical, legal and financial tools and guidelines to promote the implementation of the GPA, IWRM and the sustainable use of natural resources. The GPA held a total of 47 training courses on Municipal Wastewater Management under the EC-funded project, 'Pollution Reduction through Improved Municipal Wastewater Management in Coastal Cities in African Caribbean and Pacific (ACP) Countries with a Focus on SIDS'. The training courses were carried out in 18 ACP countries and contributed to improving skills and knowledge needed in project identification, planning and financing at the municipal level in water, sanitation and wastewater management.

The training is based on the 'UNEP/WHO/UN-HABITAT/WSSCC Guidelines on Municipal Wastewater Management' and accredited by the UN/DOALOS Train-Sea-Coast Programme. In all, 773 participants were trained in 2009. Participating countries included Bahamas, Belize, Benin, Cameroon, Comoros, Cook Islands, Cote d'Ivoire, Fiji, Madagascar, Mauritania, Mauritius, Nigeria, Republic of Congo, Senegal, Seychelles, St. Kitts and Nevis, Togo, Trinidad and Tobago. More information is available at: <http://www.training.gpa.unep.org>

3. Demonstration Project on Marine and Coastal Ecosystem-based Management

Project location: Kimbe Bay, Papua New Guinea (PNG)

A national workshop on Integrated Environmental Assessment (IEA) and Ecosystem-Based Management was organised in August 2009 by the PNG Department of Environment and Conservation (DEC) through close collaboration and financial support from UNEP¹ to:

1. Identify environmental issues and cross-sectoral policy and management responses;
2. Organise and initiate a national Integrated Environmental Assessment and Climate Change Outlook, including training in IEA methodologies; and to
3. Introduce key principles and operational approaches on marine and coastal ecosystem-based management (EBM) and plan a 6-month marine & coastal EBM demonstration project in the Kimbe Bay region.

Part of this work is to contribute to the Environment Climate Change Outlook (ECCO) report. The project also helps to train national government agencies in IEA tools and methodologies to identify key environmental issues, key drivers and possible management responses. The ECCO process will focus on climate change vulnerability assessments and impacts, mainstreaming and prioritizing of climate change adaptation options, using ecosystem-based adaptation.

4. Regional Training - South Asian Seas Programme in cooperation with the Ministry of Earth Sciences, Government of India

In conjunction with the South Asian Seas Programme and the Government of India and UNEP supported a regional training programme on marine resources sampling, data collection and interpretation. Financial support was provided by the GPA/UNEP as well as the Ministry of Earth Sciences, Government of India. The training targeted 15 government officers from South Asia Seas countries (Bangladesh, India, Maldives, Pakistan & Sri Lanka).

5. Online Access to Research in the Environment (OARE) Programme

Online Access to Research in the Environment (OARE), an international public-private consortium coordinated by the United Nations Environment Programme (UNEP), Yale University, and leading science and technology publishers, enabling developing countries to gain access to environmental science research.

In 2009, UNEP in conjunction with Yemen's Environmental Protection Authority (EPA) and its Ministry of Water and Environment worked together with the World Health Organization (WHO) to train 30 Yemeni researchers, scientists, planners, and lecturers about the use of OARE. Given that Yemen's economy depends largely on the oil and fishing industries, scientific research was been focused on the marine and coastal environments.

6. International Expert Workshop on Adaptive Ecosystem-Based Marine Spatial Management in Face of Environmental Change

¹ Support from UNEP's Regional Office for Asia & Pacific and from UNEP's Division of Environmental Policy and Implementation and the Division of Early Warning and Assessment

A workshop, supported by UNEP and held in Copenhagen was attended by 26 international experts in the field of marine spatial planning, ecosystem-based management, climate change prediction, ocean governance systems, adaptive management and risk assessment. During the workshop the group of experts integrated recent scientific findings and management experiences in designing adaptive marine spatial management tools to cope with environmental change. The workshop considered: Management instruments robust enough to counter the possible effects of climate change; Options for field pilot-projects to develop and demonstrate a conceptual framework for governance dealing with ecosystem uncertainty; and other future UNEP capacity building activities.

The workshop was hosted by Danish National Institute for Aquatic Resources in partnership with UNEP, the Nordic Council of Ministers and IUCN Marine Programme. Participating UN organizations included IOC/UNESCO and FAO.

7. Training and Review Workshop on the Management of Marine and Coastal Invasive Species in the COBSEA Region, Bangkok, Thailand.

The workshop had two main components: A training component (3 days) which provided an introduction into the management of marine and coastal invasive species – based on a training programme which was developed jointly by UNEP Regional Seas and GISP (Global Invasive Species Programme); and a review and brainstorming session (2 days) to consider a draft long-term regional programme on Marine and Coastal Invasive Species in the COBSEA Region. It was attended by twenty three scientists and administrators from research institutions and relevant national authorities from the ten COBSEA countries, and was led by marine invasive species experts from South Africa, Germany and Thailand.

8. Training workshop on Ecosystem Approaches to Coastal and Ocean Management, focusing on Ecosystem Based Management in Eastern Africa.

The training workshop was organised in response to the Conference of Parties decision CP 5/2 on the “Protection of ecosystems and endangered species” adopted at the Fifth Conference of Contracting Parties to the Nairobi Convention held in Johannesburg, South Africa in November 2007. The decision endorses and supports the use of ecosystem approaches, including the involvement of upstream countries, for the conservation of the coastal and marine areas of the Convention area. There were around 30 participants representing nine countries of the Nairobi Convention region (Comoros, Kenya, Mauritius, Madagascar, Mozambique, Seychelles, Republic of South Africa, Somali and Tanzania). The main objective of the workshop was to provide government officials and managers with the necessary tools and skills to develop and implement ecosystem approaches to the management of coastal and marine environment.

9. The Regular Process for global reporting and assessment of the state of the marine environment including socio-economic aspects.

UNEP and the Intergovernmental Oceanographic Commission of UNESCO were requested by the United Nations General Assembly through Resolution 60/30 to co-lead a process for investigating the potential establishment of a "regular" marine environmental assessment process that provides accurate information to decision makers on the state of the marine environment including socio-economic aspects.

The start-up phase of the regular process was concluded following the launch of the “assessment of assessments” report at the UN Headquarters August 2009, during the meeting of the UNGA *Ad Hoc* Working Group of the Whole established to study the report and make recommendations to the 64th session of the UNGA. The report was prepared by a Group of Experts selected with the approval of the Ad Hoc Steering Group from both developed and developing countries with wide

background and expertise on oceans. The experts examined various existing marine assessments, evaluating factors central to the influence of assessments, such as scientific credibility, policy relevance and legitimacy, which also helped identify best practices; thematic, geographic or data gaps, scientific uncertainties, as well as research and capacity-building needs, particularly in the developing world. The report also presented a set of options and recommendations for governments to consider, on ways to move the envisioned “Regular Process” forward. More information is available online at <http://www.unga-regular-process.org/> with online database also available at <http://www.unep.wcmc.org/gramed>

10. Development of methodologies and arrangement for GEF Transboundary Waters Assessment Project (TWAP).

UNEP together with partners is executing and implementing a GEF funded project to develop methodologies for transboundary water systems. This is an international initiative to develop a scientifically sound methodology for assessing the status and changing conditions of the world's major shared freshwater and marine water bodies (groundwater, lakes/reservoirs, rivers, large marine ecosystems and open ocean areas) and to catalyze a partnership and institutional arrangements among relevant agencies and organisations to conduct an integrated global assessment using this methodology. This methodology when developed for the oceans has the potential to be used in the proposed Regular process for the assessment of the marine environment.

11. Adverse, economic, social and environmental impacts of the physical alteration and destruction of marine habitats that may result from land-based and coastal development activities.

Coral reefs, mangroves, seagrasses and nearshore terrestrial ecosystems are highly interconnected by their physical and biological dependence on each other, with pathways and processes that generate ecosystem services ‘flowing’ from one habitats to another. The importance of this interdependence to ecosystem function and service provision is becoming increasingly recognised, particularly in the context of the disruption of impact of human drivers of change.

UNEP-World Conservation Monitoring Centre, Cambridge, UK has developed a guidance document titled ‘Framing the flow: Innovative Approaches to Understand, Protect and Value Ecosystem Services Across Linked Habitats’ (Silvestri S., Kershaw F., (Eds.), 2010) which aims at enhancing the understanding of ecosystem elements and linkages between ecosystems among policy-makers and practitioners. The overall objective of the publication is to help practitioners and decision makers to develop truly integrated management approaches, especially those bridging the divide between watershed management, coastal zone management, and marine ecosystem-based management.