STAKEHOLDER FORUM BRIEFING PAPER SERIES

INTEGRATED MANAGEMENT APPROACHES: A BACKGROUNDER FOR THE GPA ONLINE DIALOGUE

Coastal urbanisation leads to a sharp convergence of economic, environmental and demographic pressures in the world's coastal zones. This has often created conflicts in coastal zones over access to the coastline. Hence integrated management of coastal areas requires careful balancing of a wide range of ecological, social, cultural, governance and economic concerns. The GPA promotes the integrated management and sustainable development of river basins, oceans and seas via Integrated Coastal Area and River Basin Management (ICARM), Integrated Water Resources Management (IWRM) and Integrated Coastal Zone Management (ICZM). As part of the GPA's contribution to internationally agreed goals and targets for the sustainable development of oceans, coasts and islands, governments are also encouraged to apply the Ecosystem Approach, which requires planning based on ecosystem boundaries rather than on political or jurisdictional borders, and Circular Economy/Life Cycle or 3R (reduce, reuse and recycle) approaches, which call for very high efficiency in resource flows as a way of sustaining improvements in quality of life within natural and economic constraints. The UNEP/GPA Secretariat promotes the effective implementation of international instruments and domestic laws and policies for the integrated management, conservation and sustainable use of coastal and marine resources and ecosystems. Integrated Management Approaches such as the integrated coastal management, the ecosystem approach and the life cycle approach will feature prominently at the Second Intergovernmental Review Meeting (IGR-2) in Beijing in October 2006. This background note provides a brief overview of the integrated management approach, and introduces several questions for discussion on how the Second Intergovernmental Review Meeting of the GPA (IGR-2) in October 2006 can strengthen global, regional and national commitment to address the land based sources of marine pollution.

Integrated Coastal Management

Every major international convention and agreement concerning the oceans and coasts, since the United Nations Conference on Environment and Development in 1992, has mandated an integrated approach to coastal and marine resource management. These approaches have different names depending on their scope, including Integrated Coastal Area and River Basin Management (ICARM), Integrated Water Resources Management (IWRM), Integrated Coastal Zone Management (ICZM) and Integrated Coastal Area Management (ICAM). The UN Food and Agriculture Organization has also elaborated a set of guidelines for the management of agriculture, forestry and fisheries within coastal area management and developed specific guidelines for Integrated Coastal Fisheries Management (ICFM) to assist the fishery sector in dealing with this growing concern.

There are more and more attempts to establish a close link between freshwater and coastal management. To date some river basin management plans address the "downstream" effects of "upstream" activities, and some coastal management projects will address the effects of upstream activities and river inflows. Increasingly international programs such as the GPA, the Global Environmental Facility, and Large Marine Ecosystems are beginning to address the linkages in what is termed Integrated Coastal Area and River Basin Management (ICARM). Many challenges exist to putting Integrated Coastal Management into practice. Any given coastline will cover many different jurisdictions, all with different regulations concerning coastal development. Co-ordinating such regional differences, as well as often conflicting user groups/stakeholders, can be a major challenge for coastal management. Furthermore, management in many areas is currently highly sectoral with numerous different organisations and local authorities trying to manage areas either next to or overlapping each other. This can result in the duplication of work, contradiction of plans, and little or no communication or co-operation between the various parties. An Integrated Coastal Management approach encourages local and national legislation to complement each other instead of conflict.

Integrated Coastal Management addresses many factors including: resource depletion, pollution, biodiversity, natural hazards, sea level rise, eroding shorelines, land use, hinterlands, landscape and resource conflicts; all in the effort to manage development and conserve natural resources at the

same time. Planning is an integral part of the Integrated Coastal Management process. The purpose of planning is to produce a framework to guide decision makers in the immediate and future allocation of scarce resources, e.g. space, land, capital investments, fish, water, amongst competing interests. Without management the very reasons for living by the coast (habitat, resources, wildlife, location) will no longer exist in a functioning state.

The Ecosystem Approach

The Ecosystem Approach to the sustainable development of oceans has been recognized as a valuable conceptual framework for analyzing and acting on the linkages between people and the environment. The Ecosystem Approach also calls for planning based on ecosystem boundaries rather than on political or jurisdictional borders. This approach to the management of oceans and their resources were consolidated in Agenda 21 and the Johannesburg Plan of Implementation. In order to ensure the sustainable development of oceans, the World Summit on Sustainable Development encouraged governments and other stakeholders to countries to apply the ecosystem approach by 2012. The ecosystem approach is also the primary framework for action under the Convention on Biological Diversity, which defines it as "a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way… It is based on the application of appropriate scientific methodologies focused on levels of biological organization, which encompass the essential processes, functions and interactions among organisms and their environment. It recognizes that humans, with their cultural diversity, are an integral component of ecosystems."

Circular Economy / Life Cycle Approach and 3R (Reduce, reuse and recycle) Approaches

These integrated management approaches call for efficiency in resource flows as a way of sustaining improvements in quality of life while operating within natural and economic constraints. The idea of a Circular Economy is to dramatically cut the use of basic materials by boosting recycling and re-using waste products, including energy, water and materials. All economic activities pursue low resource exploitation, maximum efficiency in using materials and energy, and low waste generation. Similarly the Life Cycle approach aims to optimise consumption and production systems that are contained within the capacity of the ecosystem. China, the host of the IGR-2, adopted the concept of Circular Economy in 2003. Other related approaches include the 'UNEP and the Society for Environmental Toxicology and Chemistry Life Cycle Initiative' to contribute to the 10-year framework of programmes to promote sustainable consumption and production patterns, and the 3R approach (reduce, reuse and recycle). If fully implemented these approaches could contribute to high resource efficiency, while reducing pollution of coastal and marine environments, particularly those that stem from the pollution source categories identified by the GPA, namely: sewage, persistent organic pollutants, radioactive substances, heavy metals, oils, nutrients, sediment mobilisation and litter.

Looking Forward

Although integrated approaches to planning and management have existed for decades, these have not been applied systematically to the problems dealt with by the GPA. As the perception of the nature of these problems evolves it is increasingly accepted that there are benefits in moving away from a sectoral approach and towards a broader integrated management framework. The consideration of economic, development, social and environmental goals in the context of both freshwater and marine ecosystems is seen as the way forward.

The Second Intergovernmental Review Meeting of the GPA (IGR-2), which will take place in Beijing China from 16-20 October 2006, will aim to strengthen the implementation of the GPA, including defining the programme of work for the UNEP/GPA Coordination Office for the period 2007-2011. IGR-2 provides an important opportunity to advance international cooperation on the sustainable development of oceans and coasts. The draft guidance document for the implementation of the GPA 2007-2011 identifies the need to use the GPA as an instrument to further promote the integration of water, coasts and oceans management into all economic and development activities emphasising the need to address poverty while ensuring environmental sustainability. IGR-2 thus provides an important opportunity to address how integrated management approaches, particularly those targeted at National Action Programmes and Regional Seas Organisations, can support the mainstreaming of the GPA into the sustainable development of oceans, coasts and freshwater systems.

Key Questions for Discussion:

- What role is there for different stakeholders in supporting integrated management approaches?

- What role can GPA play in enhancing integrated management approaches?

- How can the mainstreaming of the GPA be furthered at the global, regional and national levels, with reference to the following targets:
    - Intergraded Water Resource Management
    - 2010 Biodiversity Target
    - Marine Protected Areas
    - Water and Sanitation Targets; and the
    - Outcomes of CSD-13

- What best practice, regarding the integrated approach at the policy or project level, can be shared with delegates at IGR-2?

Links

UN Atlas of the Oceans:
Environmental Impact of Other Activities
http://www.oceansatlas.org/servlet/CDSServlet?status=ND0xMjI3NyY2PWVuJjMzPSomMzc9a29z

UNEP/GPA:
The State of the Marine Environment, Trends and Prospects
http://www.gpa.unep.org/document_lib/en/pdf/global_soe.pdf
Programmes for the Development and Periodic Review of Environmental Law (Montevideo Programme)
http://www.gpa.unep.org/bin/php/legislation/c&ml/montevideo.php
Integrated Coastal Area Management
http://www.gpa.unep.org/bin/php/cm/coastal.php

Intergovernmental Oceanographic Commission:
Integrated Coastal Area Management
http://ioc.unesco.org/icam/

Convention on Biological Diversity:
Ecosystem Approach
http://www.biodiv.org/programmes/cross-cutting/ecosystem/default.shtml

United Nations Environment Programme (UNEP):
Implementing the 10-Year Framework of Programmes on Sustainable Consumption and Production
http://www.un.org/esa/sustdev/sdissues/consumption/Marrakech/UNEP-TF-Meeting-Repor-Final.pdf
Reduce, reuse and recycle concept (the “3Rs”) and life-cycle economy
http://www.unep.org/GC/GC23/documents/GC23-INF11.pdf

Global Forum on Oceans, Coasts and Islands:
International Workshop on Freshwater coastal-Marine Management Interlinkages
http://www.globaloceans.org/freshwater/pdf/Freshwater2OceansMexicoWorkshopReport.pdf