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## ***A partnership to strengthen the implementation of Agenda 21***



### ***Linking Integrated Water Resources Management (IWRM) and Integrated Coastal Zone Management (ICZM)***

#### ***Freshwater/Coast - the Problem***

Some of the world's most precious aquatic ecosystems like estuaries, lagoons, mangroves, and coral reefs are located in the coastal zone. But the coastlines are sagging under the impact of human activities. About 50% of human population live within 200 km of the coast line, and more are coming every day. Moreover, a majority of urban centres are located in coastal zones.

It is widely recognised that there are important linkages between the freshwater issues in the upstream river basins and the water issues in their adjoining coastal zones. Changes in stream flows caused by irrigation, hydropower and water supply have changed salinities in estuaries and lagoons. Landuse changes, in particular deforestation and intensive "green revolution agriculture" have increased the loads of sediment, nutrients and toxic pesticides. Discharges of household wastewater and toxic industrial chemicals have deteriorated the water quality and caused significant adverse impact in coastal ecosystems, and on the living conditions of millions of poor people, depending on coastal fisheries.

#### ***The Development of Integrated Approaches***

It is also recognized that the solution to such problems calls for integrated approaches. Thus, the terms Integrated Water Resources Management (IWRM) and Integrated Coastal Zone Management (ICZM) are increasingly appearing high on the international agenda, following the declarations from United Nations Conference on Environment and Development in Rio de Janeiro and the Agenda 21 in 1992. To quote the Rio Declaration of Agenda 21:

*"The fragmentation of responsibilities for water resources development among sectoral agencies is proving to be an even greater impediment to promoting integrated water resources management than had [previously] been anticipated".*

This equally applies to the issue of ICZM and its relations to IWRM

The concepts and general principles within IWRM (based on the Chapter 18 of the Agenda 21 on freshwater) are now fairly well established and are being consistently promoted, for instance by the Global Water Partnership and its regional arms. The principles have been restated

and elaborated at major international conferences in Harare and Paris, 1998 and by the UN Commission on Sustainable Development (CSD) at its Rio follow-up meeting in 1998. The World Water Forum in The Hague in March 2000 further consolidated the principles, and a "ToolBox" on best practises and experiences is now being developed.

A parallel development is ongoing regarding approaches for coastal zone management which similarly has its offset in the Agenda 21 namely the chapter 17 on Protection of the Oceans, all kind of Seas, including Enclosed and Semi-enclosed Seas, and Coastal Areas and the Protection, Rational Use and Development of their Living Resources. In its recommendations, this chapter calls for the promotion of adaptable and flexible processes of integrated coastal and marine management (ICAM). However, there is still found a number of different perceptions, which ranges from ICZM in a purely hydrodynamic context to ICZM as the physical planning of the land allocation and use in a coastal fringe and to the management of the use, conservation and protection of the coastal eco-systems.

Although slowly progressing, a transition process towards implementation of IWRM and ICZM has been initiated in many places. Unfortunately, the concepts of IWRM and ICZM are mostly being developed independently from each other by separate management bodies and organisations. This leaves in some cases the downstream coastal areas at the mercy of the river managers. In the past lack of linked freshwater and coastal management has had drastic consequences, most drastically demonstrated by the deterioration of the Aral Sea, and little attention is still given to this important link in the development of IWRM and ICZM.

There is, therefore, a clear need to show ways how national and regional approaches to ICZM and IWRM – and also international conventions and agreements - can take into consideration each other's objectives, targets, or approaches. Some conventions and declarations already mention this important relationship (e.g. Convention on the Protection and Use of Transboundary Watercourses and International Lakes and its Protocol on Water and Health, the Washington Declaration, Global Programme of Action for the Protection of the Marine Environment from Land-based Activities, and the EU Water Framework Directive). Moreover, UNEP has, through pilot projects and guideline development put focus on Integrated River Basin and Coastal Area Management (ICARM) since a few years.

### **Main Objectives of the Partnership**

The objective of the partnership initiative is to promote feasible and efficient ways and means to enhance protection of the biodiversity and productivity of coastal ecosystems through:

a) Identification of key issues and locations where the joint implementation of IWRM and ICZM through Integrated Coastal Area and River basin Management (ICARM) is mandatory.

b) Outlining key principles for ICARM implementation in respect to:

- Establishing an enabling environment for protection of the aquatic environment through integrated and sustained development of water supply, irrigation, fisheries and aquaculture, hydropower, etc.
- Creating responsive and efficient institutional frameworks, including involvement of civil society and private sector business
- Developing effective management instruments for achievement of management objectives and goals
- Proposing specific actions for introduction of ICARM, such as e.g.:
  - Systematic collection and dissemination of experiences and lessons learned in a ICARM toolbox, and updated guidelines
  - Mobilization of political and administrative support for ICARM
  - Initiation of pilot projects and experiments in specific sites
  - Capacity building through learning networks

### **The Immediate Activities of the Partnership**

The point of departure for the partnership will be UNEP's past and ongoing ICARM activities such as pilot projects, ICARM Guidelines, websites etc. as well as the practical ICARM related experience of the gradually growing group of partners.

Some specific activities in this *Dialogue* will include:

- Identification of case studies, practises and experiences with respect to ICARM.
- establishment of a discussion group in the Virtual Water Forum on ICARM.
- a Technical Workshop in South East-Asia ultimo 2002
- establishment of an internet based ICARM ToolBox in close cooperation with the IWRM ToolBox of the Global Water Partnership (GWP)
- a session at the Third World Water Forum with a multi-stakeholder dialogue on the Synthesis Report

The partnership aims at bringing together a multi-stakeholder forum of concerned politicians; government

authorities; stakeholders from civil society and private business; management experts and sector specialists.

The Regional Workshop in December 2002 will introduce, by presenting case studies and the results from both the Virtual Water Forum and the preparatory multi-stakeholder meeting to be held, the pro's and con's of an enhanced integration of both management approaches. The session will invite the audience to indicate which issues will benefit from a further integration of River Basin and Coastal Zone Management. The session will consider how a closer collaboration of freshwater and coastal/marine managers, politicians, scientists, institutions, NGO's, private business, etc., may be beneficial for all, and establish key arguments and principles for integrating both River Basin and Coastal Area Management principles. Mechanisms to support and implement such an integration will be explored.

The session in the Third World Water Forum in March 2003 will present the outcomes of the Workshop and the Virtual Water Forum for consideration and comments by the participants. It is expected that the session will identify further activities to be carried on by the Partnership, including involvement of more partners.

After the Third World Water Forum the Partnership will further develop and maintain a public (internet based) ICARM ToolBox based on experiences and best practises.

### **Initial Partners:**

- *United Nations Environment Programme (UNEP)*
- *Intergovernmental Oceanographic Commission (IOC/UNESCO)*
- *United Nations Economic Commission for Europe (UNECE)*
- *EUCC - The Coastal Union*
- *European Union (EU)*
- *International Union for Conservation of Nature (IUCN)*
- *Global Water Partnership (GWP)*
- *The Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, Germany*
- *Ghana Water Resources Commission*
- *Ministère de l'Environnement et du Cadre de Vie, Côte d'Ivoire*
- *Cambodia Coastal Zone Management Commission*
- *Office of Environmental Policy and Planning, Ministry of Science, Technology and Environment, Thailand*
- *Ministère des Mines, de l'Energie et de l'Environnement, Sénégal*
- *Ministry of Environment, Poland*
- *International Water Management Institute (IWMI)*
- *Coastal Zone Management Centre (CZMC/RIKZ), The Netherlands*
- *DHI Water & Environment, Denmark*



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