

**5<sup>th</sup> World Water Forum  
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**Roundtable Discussion Session, March 20, 2009**

**Discussion Statement 3 – Meeting Human and Environmental Needs through Linking Integrated Management of Freshwater Basins with Downstream Coastal Areas and their Ecosystems**

***The Global Forum on Oceans, Coasts, and Islands--GFOCI-- (Working Group on Linking the Management of Freshwater, Oceans, and Coasts)***

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Management of freshwater and marine coastal ecosystems must be closely interlinked. Upstream and downstream communities' livelihoods depend on the health of these ecosystems, which are normally managed independently of each other under the traditional water/coastal planning of most coastal countries. Practitioners of both freshwater and coastal planning have also increased this fragmentation; therefore these two communities rarely work together in coordination within a national or regional framework.

Coastal ecosystems are strongly influenced by land-based activities and pollution from all activities upstream. Freshwater may impact all aspects of ocean and coastal biological and physical characteristics, including productivity, trophic balances, salinity, turbidity, and streams. At the same time, the dynamic of the coastal ecosystem may impact the sources of freshwater by influencing the water cycle, tidal movement, and intrusion of salt water into coastal aquifers. The interface between freshwater and marine systems generates some of the most productive ecosystems on earth, including estuaries, deltas, and mangroves, which depend on the balance between the two systems. The threat of climate change could eventually break this balance, affecting both the marine and freshwater systems, hence the urgent challenge of addressing this linkage through integrated management. The potential impact of not addressing this issue in a timely manner may have catastrophic effects on the global economy and on human and environmental health.

Although many international environmental fora have alerted scientists and decision makers to the importance of developing integrated tools to address the linkage of freshwater and ocean and coastal management, these two worlds remain fragmented, addressing their own problems, speaking different languages, having separate budgets, duplicating many national-regional efforts, and disregarding each system's issues and potential joint solutions.

Recommendations emanating from the 2008 Global Conference on Oceans, Coasts, and Island on closing the gap between freshwater and coastal management include: taking coordinated action at all levels (including local, national and international); communicating the importance of integration among decision makers and main stakeholders; promoting demonstration projects and implementation of best management practices; and prioritizing increased funding and capacity building.

Management of freshwater and its impact on ocean and coastal areas is a cross-cutting issue (environmental, political, social, and economic) and must be a priority outcome for

the current World Water Forum, and a permanent World Water Council agenda item for future fora.

### **Guiding questions**

- Are the linkages between freshwater and coastal ecosystems included in water management in your region? How are these linkages managed (by which institutions)?
- What positive and negative impacts (economic, social and environmental) are there on ecosystem goods and services from freshwater flows on ocean and coastal ecosystems?
- How do these impacts affect different sectors (industrial, agricultural, fisheries, environment)?
- What recommendations do you have to ensure equitable sharing of water resources that will conserve ecosystems and support people?