



# Global International Waters Assessment

## Dear GIWA friends,

I am very honoured to hold in my hand the new issue of *Ambio*, the highly reputed journal of the human environment, published by the Royal Swedish Academy of Sciences. The journal has a number of articles written by experts worldwide who contribute to the GIWA assessment. The articles present some of the assessment results on transboundary waters in their regions.

Here we can read about environmental change in the Caspian Sea region and the impacts of fisheries on the dynamics of commercial fish species in the Barents Sea and the Sea of Azov. We can learn about the issues of livelihood, sustainable development and governance in the Bay of Bengal and ocean pollution from land-based sources in East China Sea. We also get information on the work to mitigate environmental problems in Lake Victoria. The articles cover many different river drainage basins and coastal waters of the world and contribute to global efforts to manage common water resources.

The articles in *Ambio* show that the GIWA project now is producing data and information that will help to improve the knowledge base in regard to transboundary resources and environmental problems. Thanks to local expert groups with professionals from different sectors GIWA is now providing guidance to all working on how to manage common waters. The great challenge to work with a worldwide methodology is proven valuable in the efforts to mitigate environmental problems in many water regions.

**Dag Daler,**  
Scientific Director

## Pollution Causes Problems in the Caribbean Sea

**GIWA region 3, Caribbean Sea, is one of the most diversified GIWA regions consisting of 28 different countries from Mexico (state of Quintana Roo) in the north to Venezuela/Colombia in the south. Apart from their varying natural characteristics the countries in the region have different historical backgrounds with influence from Spain, France, Holland and Great Britain.**

For the purpose of the GIWA exercise this diverse region was divided into three discrete subsystems; The Small Islands, Central America (including Quintana Roo) and Colombia/Venezuela, that were assessed separately.

The focal point in SR3 is INVEMAR (Institute of Marine and Coastal Research) located in Santa Marta, Colombia and is represented by INVEMAR's General Director (Captain Francisco Arias-Isaza, Marine biologist, D.E.A. Gestion de Zonas Littorales), the Head of the Coastal Zones Management Research Program (Paula Cristina Sierra-Correa, Marine biologist) and the project analysis and report writing team (Mariacatalina Bernal-Velasquez, Marine biologist; Luz Marelvis Londoño Díaz, Environmental economist; and Walberto Troncoso, Marine biologist). This institute is one of five national environmental institutes in Colombia and employs approximately 200 persons. INVEMAR has five main Research Programs: environmental quality, biodiversity and ecosystems, coastal zone management, valuation and use of natural resources, and geosciences.

The first GIWA workshop (scaling and scoping) was held in November 2002 and representatives from 14 of the countries in the region participated.

At this workshop, it was established that Habitat and community modification is the main concern in all three systems. It was also recognized that a major part of this problem is connected to pollution, i.e. suspended solids and chemical compounds. The second workshop was held in April 2003 and discussions concluded that weak institutional capacity is the main root cause of Habitat and community modification in the region.



*The GIWA region 3 Caribbean Sea team members Mariacatalina Bernal-Velasquez, Luz Marelvis Londoño Díaz and Walberto Troncoso.*

The Caribbean Sea regional report is soon to be finished and the report writing team at INVEMAR sum up their experiences gained during the GIWA work as follows:

- Valuable contacts have been established with other scientists in the region that can be used to further involve INVEMAR in international research programs.
- Environmental issues have been analyzed in a regional context (not restricted to national problems) and the general knowledge of the Caribbean region as a whole has considerably increased.
- The GIWA work supports the implementation of international agreements such as the Cartagena Conventions (considering the different related protocols).



# Biodiversity in South America Affected by Overfishing

In the Patagonian Shelf region habitat and community alterations were identified as a priority for further analysis and proposed actions. In the La Plata River basin, invasive exotic species have displaced native ones. Habitats in the ocean have been degraded, as their biodiversity becomes affected by overfishing and pollution.

These results are presented in the GIWA report for region 38, the Patagonian Shelf. The team reports similarities between the Patagonian Shelf and other GIWA regions assessed. Rivers and wetlands have been severely impacted by dam developments. Habitats close to metropolitan areas and on seashores are at risk, as are most areas of the Atlantic Coast of South America. Heavy industrialization, tourism development, domestic sewage and overfishing are major contributors to habitat deterioration.

The Patagonian Shelf region comprises the entire La Plata River Basin and the South Atlantic Drainage System including its maritime platform. 130 million inhabitants, about half the population of five countries, live within the La Plata River basin.

When studying the immediate causes to the problems a deeper analysis was made to the most significant: overexploitation of target species, by-catch, modification of sea bottoms by fishing gear and pollution from land sources.

Modification and loss of ecosystems and ecotones are among the issues identified as severe impacts in most of the South American regions assessed by the GIWA project. Densely occupied drainage basins and coastal zones in developing countries that are facing economic growth are likely to suffer from moderate to severe environmental impacts, according to the GIWA teams in this region.

## Conference to Bridge Science and Society

Now is the registration open for the conference "Troubled Waters; Bridging Science and Society" in Kalmar 22-25 August, 2004.  
[www.giwa.net/conference 2004](http://www.giwa.net/conference 2004)

The conference is organized to increase the understanding of how interactions can promote sustainable use of land and water in river basins, coastal areas and the sea, with emphasis on transboundary basins. It is expected to become a great opportunity for discussing toolboxes for environmental problems, including assessment methodologies and methods for identification of root causes and policy options.

Participants at the Stockholm Water Week August 16-20 can add value to their visit to Sweden by also taking part in the Kalmar conference, following directly after the Stockholm meetings. Kalmar on the southeast coast of Sweden is an interesting meeting site; the Baltic Sea has environmental problems shared by nine countries.

Experiences gained from several current assessments such as the GIWA and VASTRA projects and the HELP programme will serve as basis for the discussions.

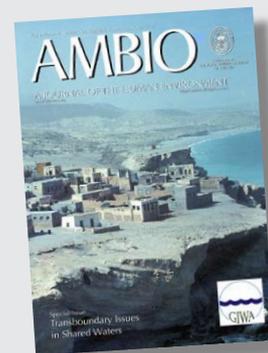
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## New team members

The GIWA Core Team has been strengthened for the work of the Global Report, to be published later this year. George Roman, Environmental Consultant, and Pierre Blime, Development Policy Analyst, are now assisting coordinator Juan Carlos Belausteguigoitia in this work. The office also has a fellowship, Susanna Paleari from Catholic University of Milan, Italy and a new intern, Johannes Wolpert from the University of Konstanz in Germany.

## Oceans in focus on June 5

The theme for The World Environment Day on June 5 this year is "Wanted! Seas and Oceans - Dead or Alive?" The theme asks us to choose how we want to treat the Earth's seas and oceans and calls on each and every one of us to act. The main international celebrations will be held in Barcelona, Spain.



## Ambio issue on GIWA

A special issue of Ambio, a journal of the human environment, is devoted to a selection of the GIWA reports. It focuses on transboundary issues in shared waters and presents some of the data GIWA is producing to contribute to global efforts to manage common water resources.

Ambio is a nonprofit English language journal of the Royal Swedish Academy of Science. It was founded in 1972, the year of the first UN Conference on the Environment which was held in Stockholm, Sweden. It is distributed in more than 100 countries worldwide and has also a Chinese language version.

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