



UNITED NATIONS  
UNIVERSITY

UNU-INWEH

# Stemming Decline of the Coastal Ocean: *Rethinking Environmental Management*

*A Special Seminar at the UN Headquarters*

**Date:** 4 June 2008

**Time:** 3.00 to 5.00 pm

**Location:** United Nations Headquarters, Conference Room 7, New York, NY

The coastal marine environment provides enormous value in fishery and other products and in ecosystem services including coastal protection, water purification, and appropriate locations for ports, harbors, urban centers, tourist destinations, and numerous recreational pursuits. Coastal environments can also cleanse the soul, stimulate the mind, and restore the body. But 40% of all people already live within 50km of a coast, and our growing enthusiasm for coastal living is creating ever more environmental damage.

Current management practices are ineffective and to continue them will endanger coastal economies and ecosystems that support over one half of the world's population. The trend for coastal marine ecosystems over recent decades has been for progressive decline in the face of growing human populations, growing demand for coastal marine resources, and growing use of the coastal environment. Now climate change is starting to add to the pressures on the coastal marine environment, further stressing ecosystems there. In this document, we briefly survey the current state of the coastal ocean environment, adding one more voice to the growing chorus of bad news. We then turn to a critical examination of why we are failing to manage the coastal ocean, and conclude with an outline of the steps which need to be taken to remedy the failure of management in any particular coastal region.

## Stemming Decline of the Coastal Ocean: Rethinking Environmental Management



A Policy Brief from the United Nations University,  
International Network on Water, Environment and Health

Authors: P.F. Sale, M.J. Butler IV, A.J. Hooten, J.P. Kutzan,  
K.C. Lindeman, Y.J. Sadovy de Mitcheson, R.S. Steneck, and H. van Lavieren



The failures in management have five main causes:

1. Human societies mostly do not understand the immense economic, cultural, and aesthetic value that a sustainably managed coastal environment provides, or the societal cost of allowing them to degrade.
2. Our impacts on the coastal ocean grow with our coastal populations and our demands for environmental goods and services, making the task of management ever more difficult. What worked yesterday will not be adequate tomorrow.

3. Management is fragmented across and within jurisdictions, while the ecosystems being managed obey none of these boundaries. Truly integrated coastal management is both logical and necessary, but has proved difficult to achieve.
4. Current management is insufficiently proactive, using specific management tools to reduce human impacts, and monitoring results to gauge effectiveness. As a result, managers and societies adapt poorly and slowly as conditions deteriorate.
5. Management programs frequently fail to become adopted by the local community that depends upon the coastal environment for its livelihood and well-being, and they fail through the consequent lack of compliance.

## **Seminar Agenda**

- 3.00-3.05     Introductory Remarks  
**Jean-Marc Coicaud**, Head, United Nations University Office in New York
- 3.05-3.15     Background to the coastal crisis, and UNU-INWEH's interest in it.  
**Hanneke van Lavieren**, UNU-INWEH, Hamilton, Canada
- 3.15-3.30     Complexity among ecosystems and people: how the network of coastal and marine actors relates to management effectiveness.  
**Andy Hooten**, AJH Environmental Services, Bethesda MD, and U.S. coordinator, Coral Reef Targeted Research and Capacity Building for Management Project
- 3.30-3.45     New challenges and new opportunities in the management of coastal fisheries  
**Jake Kritzer**, Environmental Defense Foundation, Boston MA
- 3.45-4.00     Major coastal development problems remain as new challenges arrive: some tactics that can induce more sustainable governance  
**Ken Lindeman**, Florida Institute of Technology, Melbourne FL
- 4.00-4.30     The urgent need for fundamental change in how we manage the coastal ocean – a new role for the multinational community  
**Peter F. Sale**, Assistant Director, UNU-INWEH, Hamilton, Canada
- 4.30-5.00     Questions and Discussion
- .....

## Additional information:

### Other authors (not present at launch):

Mark J. Butler IV, Old Dominion University, Norfolk, VA  
Robert S. Steneck, University of Maine, Walpole, ME  
Yvonne J. Sadovy de Mitcheson, University of Hong Kong, Hong Kong, China

In this document, we critically assess the problems underlying our failed coastal management. We then identify the steps that need to be taken by the international community, the global environmental NGO community, the science community, national and local governments, management agencies and our coastal populations that could bring about more effective management. None of these steps are impossible, but taking them will require a major commitment to change the way in which coastal environmental management is approached. Given the economic and social costs over the next few years of allowing coastal management to continue to fail, we owe it to our children to make a major effort to change.

UNU has a mission to bridge the divide between the research and the policy-making communities in order to address pressing global challenges. By creating a bridge between state-of-the-science and policy formulation, the work of UNU-INWEH in tropical coastal environments, can help us identify the problems that impede progress, and suggest practical answers and doable solutions that will improve management approaches and fill scientific gaps. With a wide range of experience amongst them, the authors have put their heads together and applied their experiences as marine scientists, to rethink coastal ocean management.

### The document:

Sale, P.F., M.J. Butler IV, A.J. Hooten, J.P. Kritzer, K.C. Lindeman, Y.J. Sadovy de Mitcheson, R.S. Steneck, and H. van Lavieren, 2008. *Stemming Decline of the Coastal Ocean: Rethinking Environmental Management*, UNU-INWEH, Hamilton, Canada pp.42

### About UNU-INWEH:



The UNU International Network on Water, Environment and Health (UNU-INWEH) is a member of the U.N. University family of organisations. It was created by the UNU Governing Council in 1996 to strengthen water management capacity, particularly of developing countries, and to provide on-the-ground project support; with its core funding provided by the Government of Canada. It is hosted by the McMaster University, Canada.

UNU-INWEH's mission is "to contribute, through capacity development and directed research, to efforts to resolve pressing global water problems that are of concern to the United Nations, its Member States and their Peoples".

### UNU-INWEH

175 Longwood Road South, Suite 204  
Hamilton, Ontario L8P OA1, CANADA

Tel: +1-905-667-5511

Fax: +1-905-667-5510

Email: [contact@inweh.unu.edu](mailto:contact@inweh.unu.edu)

Web: [www.inweh.unu.edu](http://www.inweh.unu.edu)