

Lessons from the ROPME Sea Area

16th November 2011
United Nations Headquarters, New York
Room 4, 1st Floor, North Lawn Building
13:00-15:00

How coastal development and other human impacts are compromising a valuable shared ecosystem in the Middle East, and recommendations for improved environmental management

The eight countries surrounding the inner Gulf of the ROPME Sea Area – Bahrain, Kuwait, Iran, Iraq, Oman, Qatar, Saudi Arabia, and United Arab Emirates – share a valuable marine ecosystem that now risks becoming seriously degraded by a number of human impacts including coastal development and climate change. Environmental management is generally weak, and there is a clear need for improvement and for increased cooperation if the bordering countries are going to continue to enjoy the environmental goods and services the Gulf provides. The Gulf region includes some of the most rapidly developing countries on Earth, and nearly all development is confined to the coastal fringe. As well as important fishery resources, the Gulf provides very important tourism assets, oil, water for desalination and industrial cooling, a major transportation route, and vital climatic amelioration in a hot and arid part of the world. Unfortunately, overfishing, several forms of pollution, habitat destruction and some inappropriate coastal development are placing increasing local pressure on the Gulf ecosystem at a time when aspects of climate change are increasing the physical stresses it endures.

On the other hand, the Gulf is a well-delineated body of water, in a region with considerable sovereign wealth and several political leaders who have articulated a keen intention to have their nations pursue environmentally sustainable development. The present situation in the Gulf is not so stressed that environmentally viable solutions would be difficult to attain, and there is a clear opportunity here for one or more bordering nations to provide leadership to build a made-in-the-Gulf-region solution that could be an example for other coastal regions in the world.

Today's seminar builds upon our direct experience as marine environmental scientists working in the Gulf, and our review of the available technical literature to:

- outline the considerable value of the environmental goods and services the Gulf provides to its bordering states, and the uniqueness and fragility of its ecosystems,
- delineate the ways in which human activities are progressively compromising the Gulf ecosystem at the present time,
- explore possible solutions to the most important stresses being placed upon this system, and
- recommend possible steps to be taken to strengthen environmental management, and build a region-wide, coordinated management program for the Gulf.

Many of the points made are contained in a report to be released today by UNU-INWEH, authored by a team including three of today's four speakers. That report is titled: *"Managing the growing impacts of development on fragile coastal and marine ecosystems - Lessons from the Gulf"* by Van Lavieren, H., P.F. Sale, J. Burt, D. Feary, G. Cavalcante, E. Marquis, L.S. Benedetti, B. Kjerfve, and C. Trick. 2011. A policy report, UNU-INWEH, Hamilton, ON, Canada.

Today's speakers:

Ms. Hanneke Van Lavieren, Programme Officer, United Nations University, Institute for Water, Environment and Health, Hamilton, Canada, is a marine biologist with experience in several South East Asian localities before she joined the UNEP Regional Seas program in Kenya in 2001 and first began to learn about the ROPME Sea Area. She joined UNU-INWEH in 2006 and was instrumental in managing our research project with Nakheel PJSC in Dubai, 2006 to 2009.

Dr. Charles G. Trick, Beryl Ivey Chair in Ecosystem Health, University of Western Ontario, London, Canada, is an authority on the physiological ecology of marine phytoplankton, on the role of trace nutrients in limiting their growth, and on conditions promoting the phenomenon of red tides. He was a Principal Investigator on the UNU-INWEH project in Dubai.

Dr. Charles R.C. Sheppard, Professor of Biological Sciences, University of Warwick, Coventry, U.K., is a marine ecologist interested in the responses of marine ecosystems to various anthropogenic stressors including climate change, and in coastal management in tropical marine systems. He was not a participant in the UNU-INWEH Dubai project, but has extensive field experience throughout the Middle East since the late 1970s, and has published extensively on the Gulf.

Dr. Peter F. Sale, Assistant Director, United Nations University, Institute for Water, Environment and Health, Hamilton, Canada, is a tropical marine ecologist with particular expertise in the ecology of coral reef systems and in the management of coastal and coral reef ecosystems. He led the UNU-INWEH research project in Dubai.

Agenda

- 13-13.05 pm **Nominee**, United Nations University Office in New York
Introductory Remarks
- 13.05–13.25 **Hanneke Van Lavieren**, UNU-INWEH
Why the Gulf is Important. A discussion of its unique geography and biology, its harsh environment, its significant economic importance, and the various anthropogenic stressors now impacting it.
- 13.25-13.45 **Charles G. Trick**, University of Western Ontario
Water-quality Issues in coastal waters of the Gulf. A discussion of the particular risks of pollution by nutrients and other substances, the added risks imposed by rapid, and often poorly designed coastal development, and the risks to human and environmental health that could result.
- 13.45-14.05 **Charles R.C. Sheppard**, University of Warwick
Environmental Impacts of Coastal Development on the Gulf. A discussion of the ways in which coastal development is now impacting coastal and offshore marine systems in the Gulf, and how this increases the risks to sustainability of the Gulf ecosystem posed by other human impacts.
- 14.05-14.25 **Peter F. Sale**, UNU-INWEH
Improving Management of the Gulf Environment. A discussion of current deficiencies in environmental management in this region, and possible Gulf-derived solutions to build a sustainable marine ecosystem.
- 14.25-15.00 **Panel Discussion**. A dialog between the speakers and the audience.