Toward Ocean Recovery

A conference on:

Stress, Sustainability, and Development of Large Marine Ecosystems During Climate Change

John F. Kennedy Library
Boston, Massachusetts
February 16, 2013, 12:30-5:30 p.m.

Linked to the annual American Association for the Advancement of Science meeting
Boston, Massachusetts—February 15-18, 2013
Large Marine Ecosystems (LMEs) annually produce 80 percent of the world’s marine fish catch. These coastal ocean areas are overfished, polluted, and subject to nutrient over enrichment, acidification, accelerated warming from climate change, loss of biodiversity and key habitat areas—including sea grasses, mangroves and coral reefs. These stressors are impacting the sustainable development of an estimated $12 trillion in goods and services contributed annually by LMEs to the global economy.

In June 2012, world political leaders at the United Nations Conference on the Environment and Development in Rio de Janiero (Rio+20) committed to:

“. . . protect, and restore, the health, productivity and resilience of oceans and marine ecosystems, and to maintain their biodiversity, enabling their conservation and sustainable use for present and future generations . . .”

To meet the challenge of Rio, leaders directing the world’s top financial, scientific, and technical institutions engaged in sustainable development of the oceans from Copenhagen, New York, Paris, and Washington D.C. will discuss the recovery and sustainability of LMEs during climate change. Attendees include invited guests, scientists in Boston for the annual meeting of the American Association for the Advancement of Science, the public, and the press.

The Global Environment Facility, World Bank, and United Nations are partnering with the international coastal ocean community in providing over $3 billion dollars in financial, scientific, and technical assistance to countries in Asia, Africa, Latin America, and Eastern Europe. LME projects in 110 developing countries are restoring the health, food security, and economic vitality for millions of people around the globe dependent on LME goods and services.

The successful recovery and growth of LME goods and services will require more attention to multi-sectoral agreements for the use of LME space. Competing uses include hydrokinetic energy, coastal transportation, fisheries, tourism, mining, and gas and oil production. Speakers and panelists will share experiences in coastal and marine spatial planning from generic and case study perspectives.
Session I: World Leaders Weigh in on LMEs
12:30—3:00 p.m. February 16, at J.F.K. Library Boston

- Welcome to the Conference
- Assessment and Management of Large Marine Ecosystems — Overview, Dr. Kenneth Sherman, Director NOAA LME Program

- Jane Lubchenco will speak on “Large Marine Ecosystems at the Leading Edge of Global Tipping Points.” Dr. Lubchenco is the Under Secretary of Commerce for Oceans and Atmosphere and the NOAA Administrator.

- Naoko Ishii will speak on “GEF Support Toward Sustainable Development of Large Marine Ecosystems.” Dr. Ishii is the Chief Executive Officer of the Global Environment Facility (GEF).

- Anne Christine Brusendorff will speak on “Accelerated Warming and Sustainability of the Baltic Sea Large Marine Ecosystem.” Anne Christine Brusendorff, J.D. is the General Secretary of the International Council for the Exploration of the Sea.

- Veerle Vandeweerd will speak on the “Transforming Markets and Catalysing Finance to Restore and Protect the World’s LMEs.” Dr. Vandeweerd is Director of the Environment and Energy Group at the United Nations Development Programme.

- Wendy Watson-Wright will speak on “LME Assessment and Management Strategies for Coastal Oceans.” Dr. Wright is Executive Secretary of the Intergovernmental Oceanographic Commission and Assistant Director General of UNESCO, the United Nations Educational, Scientific, and Cultural Organization (IOC-UNESCO).

3:00—3:30 P.M. Coffee break
Session II: Role of Marine Spatial Planning in the Recovery and Sustainability of LMEs
3:30—4:30 p.m. February 16, at J.F.K. Library Boston

- **Barry Gold** will speak on “LMEs and Marine Spatial Planning.” Dr. Gold is Program Director for Marine Conservation with the Gordon and Betty Moore Foundation.

- **Charles Ehler** will speak on “Marine Spatial Planning as a Framework for Sustainable Development of LMEs.” Charles Ehler is President of Ocean Visions Consulting.

Roundtable on MSP Applications for LME Projects in Africa, Asia, Latin America, & North America
4:30—5:30 p.m. February 16, at J.F.K. Library Boston

- Dr. Sandra Whitehouse is a Senior Advisor for the Ocean Conservancy. Dr. Whitehouse has an extensive background in ocean sciences, environmental policy, and marine planning.

- Dr. Hashali Hamukuaya is the Executive Secretary of the Benguela Current Commission. Dr. Haukuaya will focus on marine spatial planning for African LMEs.
Ivan Zavadsky and Andrew Hudson will co-chair the Roundtable on MSP Applications for LME Projects in Africa, Asia, Latin America, and North America. Ivan Zavadsky is a Senior Water Resources Management Specialist at the Global Environment Facility. Dr. Hudson is the Head, Water & Ocean Governance Programme, United Nations Development Programme.

Yihang Jiang is a consultant for the Yellow Sea LME and former director of the UNDP-GEF Yellow Sea LME Project. He has wide experience in place-based planning for Asian LMEs.

Dr. Antonio Diaz de Leon is the Director General of Environmental, Regional, and Sectoral Integration Policy at the Environment and Natural Resources Ministry in Mexico and advisor for the U.S.-Mexico Gulf of Mexico LME project. Dr. Diaz has extensive experience in multiple-use planning of Latin American LMEs and directs the GEF-UNIDO Gulf of Mexico LME.

Michael Akester is the Regional Project Coordinator for the Humboldt Current LME. He is applying multi-sector management practices for the UNDP-GEF Humboldt Current LME Project.

Ivan Zavadsky and Andrew Hudson will co-chair the Roundtable on MSP Applications for LME Projects in Africa, Asia, Latin America, and North America.

Dr. Hudson is the Head, Water & Ocean Governance Programme, United Nations Development Programme.

Alfred Duda is the discussant for the Roundtable. Dr. Duda is a former senior advisor for International Waters at the Global Environment Facility.

JFK Library Pavilion Reception 5:30—7:30 P.M.
Adjourn 7:30 P.M.
Hashali Hamukuaya is the Executive Secretary and Chief Technical Advisor for the Benguela Current Commission. He will speak on the Resilience and Robustness of the Benguela Current Large Marine Ecosystem (BCLME). The BCLME is being degraded by climate change and heavy fishing mortality. Actions supported with financial assistance of the GEF, UNDP, World Bank, and other donors are underway. Angola, Namibia, and South Africa joined in a BCLME project, based on the application of the 5 module assessment and management strategy, to mitigate and adapt to the effects of climate change and promote recovery of the BCLME in support of sustainable development of shared BCLME goods and services.

Yihang Jiang is the Project Consultant for the UNDP-GEF Yellow Sea Project. He will speak on the Resilience and Robustness of the Yellow Sea Large Marine Ecosystem (YSLME). The YSLME has been highly degraded from human exploitation. Marine scientists and policy experts from the Republic of Korea and the People’s Republic of China, joined in a YSLME project supported by the GEF, UNDP, and both countries to restore resilience and robustness to the ecosystem. Using adaptive ecosystem-based management actions such as reducing capture fisheries effort and improving water quality through innovative integrated multitrophic mariculture, the project supplements protein production while capture fisheries are recovering.

Michael Akester is the Regional Project Coordinator for the UNDP-GEF Humboldt Current LME Project. He will speak on the Resilience and Robustness of the Humboldt Current Large Marine Ecosystem (HCLME). The HCLME is under the influence of short-term and long-term climate variability, the resilience and robustness of the HCLME varies around the responses of small pelagic fish production. Adaptive ecosystem-based management strategies are being implemented to maintain the long-term sustainable carrying capacity of the HCLME in relation to ecosystem
Large Marine Ecosystems of the World and Linked Watersheds

1 East Bering Sea
2 Gulf of Alaska
3 California Current
4 Gulf of California
5 Gulf of Mexico
6 Southeast U.S. Continental Shelf
7 Northeast U.S. Continental Shelf
8 Scotian Shelf
9 Newfoundland-Labrador Shelf
10 Insular Pacific-Hawaiian
11 Pacific Central-American Coastal
12 Caribbean Sea
13 Humboldt Current
14 Patagonian Shelf
15 South Brazil Shelf
16 East Brazil Shelf
17 North Brazil Shelf
18 West Greenland Shelf
19 East Greenland Shelf
20 Barents Sea
21 Norwegian Shelf
22 North Sea
23 Baltic Sea
24 Celtic-Biscay Shelf
25 Iberian Coastal
26 Mediterranean Sea
27 Canary Current
28 Guiana Current
29 Benguela Current
30 Agulhas Current
31 Somali Coastal Current
32 Arabian Sea
33 Red Sea
34 Bay of Bengal
35 Gulf of Thailand
36 South China Sea
37 Sulu-Celebes Sea
38 Indonesian Sea
39 North Australian Shelf
40 Northeast Australian Shelf - Great Barrier Reef
41 East-Central Australian Shelf
42 Southwest Australian Shelf
43 Southwest-Central Australian Shelf
44 West-Central Australian Shelf
45 Northwest Australian Shelf
46 New Zealand Shelf
47 East China Sea
48 Yellow Sea
49 Kuroshio Current
50 Sea of Japan/East Sea
51 Oyashio Current
52 Okhotsk Sea
53 West Bering Sea
54 Chukchi Sea
55 Beaufort Sea
56 East Siberian Sea
57 Laptev Sea
58 Kara Sea
59 Iceland Shelf
60 Faeroe Plateau
61 Antarctic
62 Black Sea
63 Hudson Bay
64 Arctic Ocean
Moving Toward Sustainable Development of Large Marine Ecosystems

American Association for the Advancement of Science
Annual Meeting

Hynes Convention Center
Boston, Massachusetts
February 17, 2013, 10:00-11:30 a.m.

Kenneth Sherman
Organizer
NOAA-Fisheries

Andrew Hudson
Moderator
UNDP

Hashali Hamukuaya
Benguela Current LME

Yihang Jiang
Yellow Sea LME

Michael Akester
Humboldt Current LME