



Related Links

[UNH Institute for the Study of Earth, Oceans, and Space](#)

[Millennium Ecosystem Assessment](#)

UNH Scientists Help Author UN Global Ecosystem Assessment

Contact: [David Sims](#)
603-862-5369
Science Writer
Institute for the Study of Earth, Oceans, and Space

March 31, 2005

DURHAM, N.H. – Preliminary findings from a massive, four-year undertaking to assess the consequences of ecosystem change on human well-being were presented to the public for the first time at events held around the world March 30.

In the Synthesis Report of the landmark Millennium Ecosystem Assessment (MEA), it was revealed that approximately 60 percent of the “ecosystem services” that support life on Earth – such as fresh water, capture fisheries, air and water regulation, and the regulation of regional climate, natural hazards and pests – are being degraded or used unsustainably. Scientists warn that the harmful consequences of this degradation could grow significantly worse in the next 50 years, according to the summary report.

Called for by United Nations Secretary-General Kofi Annan in 2000 and carried out between 2001 and 2005, the broad assessment, which includes chapters authored by University of New Hampshire scientists, seeks to establish the scientific basis for actions needed to enhance the conservation and sustainable use of ecosystems. The study has been characterized as one of the largest scientific collaborations of our time.

Among the 1,300-plus experts from 95 countries involved as authors of the assessment reports are UNH professors George Hurtt and Charles Vörösmarty of the Institute for the Study of Earth, Oceans, and Space (EOS), and recent UNH Ph.D. graduate Manoel Cardoso, who is now a research scientist in his native Brazil.

Says Hurtt, “The significance of this report is that it assesses the status of the world’s ecosystems and their services in an international peer reviewed format. It represents broad scientific consensus, and as such should provide an important resource for the public and policy makers.”

Hurtt adds that the MEA is equivalent to the oft-cited reports produced by the Intergovernmental Panel on Climate Change or IPCC, “which has produced an influential set of reports for climate change studies.”

The MEA synthesizes information from scientific literature and relevant peer-reviewed datasets and models. It incorporates knowledge held by the private sector, practitioners, local communities and indigenous peoples. The assessment did not aim to generate new primary knowledge, but instead sought to add value to existing information by collating, evaluating,

summarizing, interpreting and communicating it in a useful form.

Sections of the MEA dealing with specific topics will be released on a staggered schedule. Hurtt and Cardoso are lead authors of a forthcoming chapter on the regulation of natural hazards, including fires, flooding and other events. Vörösmarty is a convening lead author of a forthcoming chapter on freshwater ecosystem services. These chapters are to be released in September as part of the report on “Current State and Trends.”

Says Vörösmarty, “Large segments of the world’s population still fail to be adequately served by clean and sufficiently abundant water supplies. In arid and semi-arid parts of the globe there are severe water shortages, leading to major economic, social, political and environmental challenges.” Four main findings were cited in the MEA’s Synthesis Report: humans have changed ecosystems more rapidly and extensively in the last 50 years than in any other period; ecosystem changes that have contributed substantial net gains in human well-being and economic development have been achieved at growing costs in the form of degradation of other services; the degradation of ecosystem services could grow significantly worse during the first half of this century; and, the challenge of reversing the degradation of ecosystems while meeting increasing demands can be met under some scenarios involving significant policy and institutional changes. However, these changes will be large and are not currently under way.

For more information on the Millennium Assessment, visit <http://www.millenniumassessment.org/en/index.aspx>.