

Robert Costanza; Gund Institute for Ecological Economics - Uni Vermont

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About Us / History

Thanks to the generous support of the Gund Family, the *Institute for Ecological Economics*, housed at University of Maryland at Solomons College Park (1989-2002), moved to the University of Vermont in 2002 and was renamed *The Gund Institute for Ecological Economics*. The Gund Institute is currently housed in the historic Johnson House, part of The Rubenstein School of Environment and Natural Resources, University of Vermont.

Ecological economics is a transdisciplinary field of study that broadly examines the relationships between ecological and economic systems. It differs from both conventional economics and ecology by emphasizing environment-economy interactions.

Ecological economics is based on the assumption that the economy is a subsystem of a larger ecological life support system. Understanding this relationship is central to meeting humanity's current environmental challenges, as well as building a sustainable future. Ecological economists strive for an ecologically sustainable, socially equitable, and economically efficient future.

Dr. Robert Costanza and the Gund Institute represent a commitment to using a transdisciplinary approach to solve real-world problems. Working together, both academics and practitioners can help to develop and implement new environmental policy and management techniques that benefit the environment and the economy, holistically and sustainably.



At the Gund Institute, we are developing, testing, and implementing innovative methods and models that reflect the need to integrate the social, built, natural, and human capital components of our world. [Read more](#)¹ >>>

Current Research Programs

The Gund Institute's research programs seek to illuminate the interdependencies between economic and ecological interests and develop viable strategies that work to simultaneously enhance both.

Current Projects:

[Carbon Dynamics Lab](#)¹

[Earth Shareholders Report](#)²

[Ecoinformatics Collaboratory](#)³

[EcoValue Project](#)⁴

[Envisioning a Sustainable and Desirable America](#)⁵

[Estimates of the Genuine Progress Indicator \(GPI\)](#)⁶

[Landscape Modeling](#)⁷

[Redesigning the American Neighborhood](#)⁸

[USA/China Collaboration Project](#)⁹

[Ecosystem Services: Dynamics, Modeling, and Valuation to Facilitate Conservation](#)¹⁰

Robert Costanza

Funded by the Gordon and Betty Moore Foundation

[Vermont Green Tax and Common Assets Project](#)

¹¹ Gary Flomenhoft

Funded by Vermont Community Foundation, Orchard Foundation, and Alex C. Walker Foundation

[Measuring Ecosystem Services in New Zealand](#)¹²

Matthew A. Wilson co-Principal Investigator (USA)

Steve Wratten, and Ross Cullen Principal Investigators, Lincoln University NZ

Funded by New Zealand Governments Foundation for Research Science and Technology

[Applying Spatially Explicit Dynamic Landscape Modeling to Forest Watershed Planning and Adaptive Management in the Northern Forest](#)¹³

Alexey Voinov, Robert Costanza, Joshua Farley and Roelof Boumans-GIEE; Clare Ginger, Breck Bowden and Mary Watzin-RSEN; and Thomas Maxwell, SAIC.

[The Baltimore Ecosystem Study \(BES\)](#)

[Human Settlements as Ecosystems: Metropolitan Baltimore from 1797-2100](#)¹⁴

Steward Pickett, Robert Costanza, and 11 others

NSF Long Term Ecological Research (LTER) Project

[Kola Project - Applications of Interactive Integrated Assessment and Modeling to Design Sustainable Development Strategies for Arctic Watersheds](#)¹⁵

Alexey Voinov

Funded by the National Science Foundation

[Health for Animals and Livelihood Improvement \(HALI\) Rungwa-Ruaha Ecosystem, Tanzania](#)¹⁶

Jon Erickson (co-PI) with Jonna Mazet (PI, UC Davis), Peter Coppolillo (Wildlife

Conservation Society), and R. Kazwala (Sokoine University of Agriculture, Tanzania)

Funded by the Global Livestock Collaborative Research Support Program

2006-2009

Designing a New Model for Sustainable Ecological Tourism in the Northern Forest

Region: An atelier course

Robert Costanza and Marta Ceroni

Funded by Northeastern States Research Cooperative (USDA Forest Service)

Participatory Modeling of Recreation and Tourism in the Northern Forest

Lisa Chase and Roelof Boumans

Funded by the USDA Forest Service

Seacoast Watershed Information Manager: A toolkit for evaluating conserving and restoring watershed resources

Roelof Boumans
Funded by NOAA

Monitoring Socioeconomic Wellbeing in the Northern Forest

Marta Ceroni
Funded by Northeastern States Research Cooperative (USDA Forest Service)

Carbon Stocks and Fluxes in Urban and Suburban Residential Landscapes

Jennifer Jenkins
Funded by the National Science Foundation

Factors Influencing Productivity in the Northern Forest: A forest inventory approach

Jennifer Jenkins
Funded by Northeastern States Research Cooperative (USDA Forest Service)

Improving Biodiversity Conservation in Threatened Landscapes in Central Vietnam

Alexey Voinov
Funded by the American Museum of Natural History

Redefining "Productive" Implications for Sustainable Forest Management

Joshua Farley, Marta Ceroni, and Jennifer Jenkins
Funded by the USDA Forest Service

Valuing New Jersey's Natural Capital and Ecosystem Services

Robert Costanza, Matthew Wilson, and Austin Troy
Funded by the New Jersey Department of Environmental Protection

[Green Awassa Atelier Project - Ethiopia](#)¹⁷

Joshua Farley and Anjanette Merino
Funded by the Foundation for a Sustainable Future

US-Mexico Training, Internships, Exchanges, and Scholarships (TIES) Partnership

Robert Costanza, Anjanette Merino, Tania Garcia (Univ. of Anahuac), and Miguel Equihua (Institute Ecologia)
Funded by USAID

Links

[Earth Inc.](#)¹

EI is a not-for-profit organization with broad mission of enhancing human well-being by promoting sustainable, fair, and efficient stewardship of Earth's natural, social, human, and built capital. [Learn More >>](#)¹

[Encyclopedia of Earth](#)²

The Encyclopedia of Earth is an electronic reference about the Earth, its natural environments, and their interaction with society. The Encyclopedia is a free, fully searchable collection of articles written by scholars, professionals, educators, and experts who collaborate and review each other's work. The articles are written in non-technical language and will be useful to students, educators, scholars, professionals, as well as to the general public. [Learn More >>](#)²

[Solutions](#)³

A New Publication for a Sustainable and Desirable Future. Solutions synthesizes the best of our knowledge and creativity, driven by a vision of a future with a globally higher quality of life. It is intended for practitioners of design sciences, as well as for a broad audience that reaches beyond traditional academic journals to the informed public. It will provide a much-needed forum, devoted exclusively to whole-system solutions and the design of an integrated human and natural world. [Learn More >>](#)³

[MetaCourses](#)⁴

MetaCourses are online courses providing Introductions to Ecological Economics and Simulation Modeling, two requirements for the Certificate in Ecological Economics. Their main is to provide full access to the content to students and the general public, but also to educators all over the world. [Learn More >>](#)⁴

[UVM Leading By Design](#)⁵

The Leading By Design Project has the 15 million dollar challenge from the Lewis Foundation to transform the University of Vermont into a "catalyst, a model, and an engine of change--a driving force that leads society by design to a sustainable and desirable future." [Learn More >>](#)⁵

[Earth Economics](#)⁶

Earth Economics has a mission of advancing and applying the science of ecological economics to promote healthy ecosystems, communities and economies. [Learn More >>](#)⁶

... of Note

[Moral Economy Project](#)⁷

A group of Quakers, based in Montreal, Canada, interested in ideas for turning the economy away from the concept of unlimited growth and toward a better relationship between human economic activity and the carrying capacity of the biosphere. [Learn More >>](#)⁷

[National Ocean Economics Program](#)⁸

Currently the largest database in the world of studies documenting the environmental and recreational values of ocean resources, the website now includes 1) an updated methodologies section, 2) frequently asked questions, 3) examples of how *Non-Market valuation* influences public policy, and 4) an expanded table summarizing valuation estimates from across the United States. [Learn More about Non-Market Valuation >>](#)⁹

Publications

Gund scholars and students publish a wide variety of important papers and articles in an equally diverse number of journals and other resources. Together, these works comprise an excellent overview of both the principals and the practice of ecological economics.

Power Point Presentations and/or Movies

[Ecological Economics PowerPoint presentation \(48 MB\)](#)¹

[Envisioning PowerPoint presentation \(6.5 MB\)](#)²

[Global Atmosphere MPEG \(30 MB\) for Presentations](#)³

[Global NPP MPEG \(4 MB\) for Presentations](#)⁴

In Print

2009

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