

## About Us

The Natural Capital Project (NatCap) is a partnership among Stanford University, The Nature Conservancy, the World Wildlife Fund, and the University of Minnesota that works to develop and provide practical ecosystem service approaches and tools, apply them in select areas around the world, and engage influential leaders to advance change in policy and practice through mainstreaming the approaches.

## InVEST



Integrated Valuation of Environmental Services and Tradeoffs ([InVEST](#)) is a free and open-source software suite developed by the Natural Capital Project. It maps and values the goods and services from nature that contribute to sustaining and fulfilling human well being. Version 2.5.3 was released on March 21st, 2013 and contains both ArcGIS dependent and standalone tools. Check out [our website](#) to see which models are available in which

# Science & Tools for Valuing Nature

## Greetings!

By quantifying nature's support of human wellbeing, The Natural Capital Project (NatCap) aims to transform the way individuals and institutions make decisions about the environment and development. We develop simple approaches to valuing nature by working closely with decision makers, and provide free, open source ecosystem service tools to a broad community of users. We have tested and refined our approach in decision settings relating to spatial planning, payment for ecosystem services, climate adaptation planning, impact assessments for permitting and mitigation, corporate risk management, marine and coastal planning, and habitat restoration. One of our current engagements is supporting the [Coastal Zone Management Authority and Institute](#) (CZMAI) in the development of an Integrated Coastal Zone Management Plan that guides sustainable economic growth while protecting the natural heritage that is the foundation of their economy.

## The NatCap Approach

### AN EXAMPLE FROM BELIZE

Through on-the-ground experience, NatCap has developed an approach to incorporating ecosystem services into decisions. We start by working with local partners to define their objectives and to identify specifically what ecosystem service information might best inform upcoming policy and management decisions (step #1 in the figure below). In Belize, CZMAI's stated goals were to develop a zoning plan that balances sustainable use of the coastal and marine environment for the benefit of Belizeans and the global community. Our partners were most interested in ecosystem service changes resulting from changes in mangroves, seagrass, and coral reef habitats: lobster fisheries, protection from hurricanes and sea-level rise, and support of tourism. We worked with CZMAI to compile local knowledge and data for the entire coastal zone of Belize (step #2). Together, we elicited information and opinions from stakeholders around the country to generate alternative future management scenarios (step #3), each of which varies in the amount and location of development, fishing pressure, habitat protection, and other human uses.

platform.

[Sign up](#) to receive the latest information on InVEST and participate in our online user community.

## InVEST Trainings

### Vermont - NatCap & InVEST Training

June 12-14

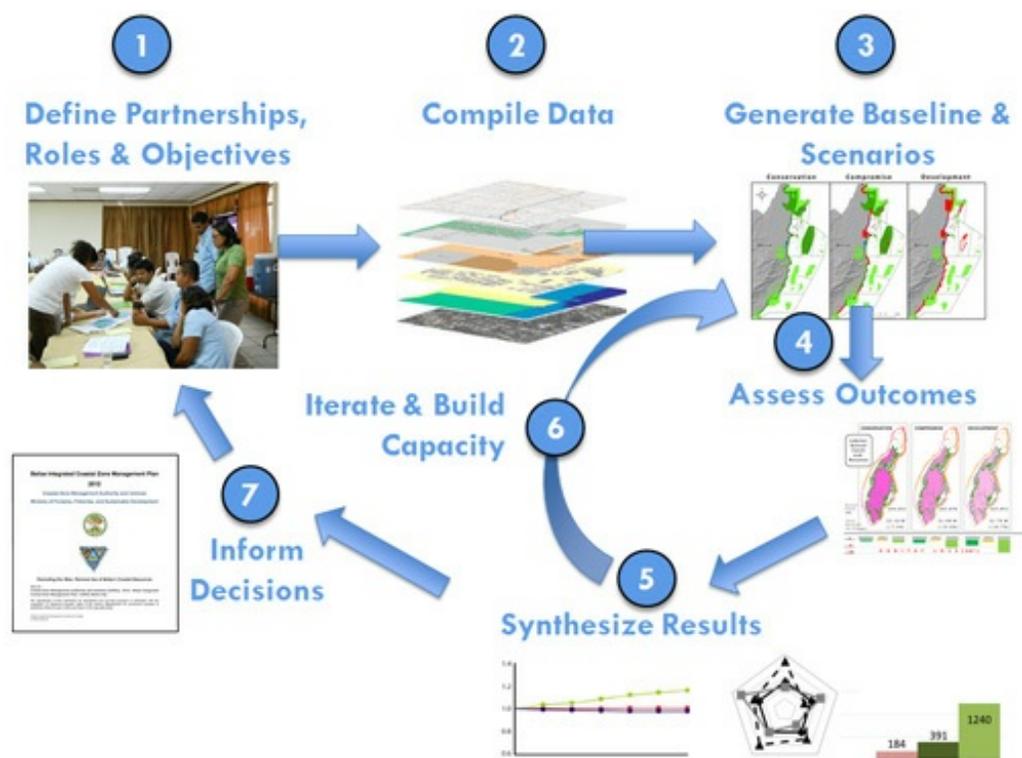
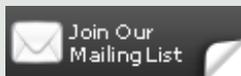
Registration fee increases May 1st

[More information](#)

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[Sign up to receive more information about our upcoming trainings.](#)

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Next we used our InVEST software suite to model and map locations of key ecosystem services that would be provided under these scenarios (step #4) and to estimate the monetary values of these services. To build local capacity, we trained analysts from CZMAI to use InVEST so that running models was a team effort. We synthesized the ecosystem service changes using metrics that are most meaningful to decision makers (step #5). In Belize, the CZMAI and stakeholders wanted results expressed in both biophysical (e.g., feet of beach eroded, pounds of lobster landed, number of recreational visitors) and monetary (e.g., dollars) terms.

Arriving at scenarios, desired ecosystem service outcomes, and resonant results is a very iterative process. In Belize and elsewhere, early results are only the first step in the evolution of salient information. Several iterations (step #6) of scenario development, running models, and synthesizing results led to the development of a preferred scenario CZMAI calls "Informed Management" that serves as the cornerstone of the draft Coastal Zone Plan that is currently out for review (step #7). A final plan is scheduled to be formally approved by the end of the year.

## Vermont InVEST Training

BURLINGTON, VT

June 12-14, 2013

Our next InVEST Training will be held in Vermont on June 13th and 14th, 2013. This two-day course, hosted by the [Gund Institute for Ecological Economics](#) at the University of Vermont, will teach participants how to use the InVEST software suite and ways to apply approaches and tools for ecosystem service valuation in decision-making. A preliminary program with an introduction to InVEST and the natural capital approach will be held on June 12th at the [United States Society for Ecological Economics conference](#), which all registrants are encouraged to attend. [Registration is available at a reduced rate until May 1st.](#)



## New Book: Nature's Fortune

HOW BUSINESS AND SOCIETY THRIVE BY INVESTING IN NATURE

What's the smartest investment any business or government can make? Nature is, argue Mark Tercek, CEO of The Nature Conservancy and former investment banker, and science writer Jonathan Adams in their book, [Nature's Fortune](#), out this month. The forests, floodplains, and oyster reefs, often seen simply as raw materials or as obstacles to be cleared in the name of progress provide foundational support for human well-being and are as important to our future prosperity as technology or law or business innovation. Amazon.com characterizes this book as: "A must-read for business leaders, CEOs, investors, and environmentalists alike, Nature's Fortune offers an essential guide to the world's economic and environmental well-being."

"By leading conservation down into dollars and cents, Mark Tercek shows that economic growth and environmental sustainability are not mutually exclusive goals. Nature's Fortune takes a pragmatic approach to an important issue, and from the conservation know-how to earthbeats."

—WILLIAM JEFFERSON CLINTON, 42nd President of the United States of America

# NATURE'S FORTUNE



HOW BUSINESS AND SOCIETY  
THRIVE BY  
INVESTING IN NATURE

MARK R. TERCEK AND JONATHAN S. ADAMS

## Recent Publications

### [Conserving large carnivores: Dollars and fence](#)

Packer, C., A. Loveridge, S. Canney, T. Caro, S.T. Garnett, M. Pfeifer, K.K. Zander, A. Swanson, D. MacNulty, G. Balme, H. Bauer, C.M. Begg, K.S. Begg, S. Bhalla, C. Bissett, T. Bodasing, H. Brink, A. Burger, A.C. Burton, B. Clegg, S. Dell, A. Delsink, T. Dickerson, S.M. Dloniak, D. Druce, L. Frank, P. Funston, N. Gichohi, R. Groom, C. Hanekom, B. Heath, L. Hunter, H.H. Delongh, C.J. Joubert, S.M. Kasiki, B. Kissui, W. Knocker, B. Leathem, P.A. Lindsey, S.D. Maclellan, J.W. McNutt, S.M. Miller, S. Naylor, P. Nel, C. Ng'weno, K. Nicholls, J.O. Ogutu, E. Okot-Omoya, B.D. Patterson, A. Plumptre, J. Salerno, K. Skinner, R. Slotow, E.A. Sogbohossou, K.J. Stratford, C. Winterbach, H. Winterbach, and S. Polasky.

*Ecology Letters* Vol. 16, Issue 5, pages 635-641, May 2013 - Early edition online now

### [Auction designs for allocating wind energy leases on the U.S. outer continental shelf](#)

Robert Griffin

*Energy Policy*, 56, 603-611

### [Effects of Climate Change on Range Forage Production in the San Francisco Bay Area](#)

Chaplin-Kramer, R. and M.R. George

*PLoS ONE* 8(3): e57723. doi:10.1371/journal.pone.0057723

### [Achieving the triple bottom line in the face of inherent trade-offs among social equity, economic return, and conservation](#)

Benjamin S. Halpern, Carissa J. Klein, Christopher J. Brown, Maria Beger, Hedley S. Grantham, Sangeeta Mangubhai, Mary Ruckelshaus, Vivitskaia J. Tulloch, Matt Watts, Crow White, and Hugh P. Possingham

*Proceedings of the National Academy of Sciences* (publication date: 28 March, 2013)

### [Low biodiversity stable state persists two decades after cessation of nutrient enrichment](#)

Isbell, F., D. Tilman, S. Polasky, S. Binder, and P. Hawthorne

*Ecology Letters* (2013)

### [The Challenges of Incorporating Cultural Ecosystem Services into Environmental Assessment](#)

Debra Satz, Rachelle K. Gould, Kai M. A. Chan, Anne Guerry, Bryan Norton, Terre Satterfield, Benjamin S. Halpern, Jordan Levine, Ulalia Woodside, Neil Hannahs, Xavier Basurto, Sarah Klain

*AMBIO*. 2013. DOI 10.1007/s13280-013-0386-6

### [Restoring native forest understory: The influence of ferns and light in a Hawaiian experiment](#)

Gould, RK, HA Mooney, L Nelson, R Shallenberger, and GC Daily

*Sustainability* 5: 1317-1339

[Social norms and global environmental challenges: The complex interaction of behaviors, values, and policy](#)

Kinzig, AP, PR Ehrlich, L Alston, K Arrow, S Barrett, GC Daily, B Fischhoff, S Fitzpatrick, B Levin, S Levin, M Oppenheimer, E Ostrom, D Saari, BB Torrey  
*BioScience* 63: 164-175

[Forest restoration and parasitoid wasp communities in montane Hawai'i](#)

Gould, RK, L Pejchar, SG Bothwell, B Brosi, S Wolny, CD Mendenhall, and GC Daily  
*PLoS One* 8(3): e59356 (11 pages)

[Decision scaling: Linking bottom-up vulnerability analysis with climate projections in the water sector](#)

Casey Brown, Yonas Ghile, Mikaela Laverty, Ke Li  
*Water Resources Research: Volume 48, Issue 9, September 2012*

*\*Access to full articles may require library access.*

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Thank you for your continued interest in the Natural Capital Project. If you have any questions, please feel free to contact us at [invest@naturalcapitalproject.org](mailto:invest@naturalcapitalproject.org).

