

## About Us

The Natural Capital Project 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 services concepts and tools, apply these tools 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. A new version of InVEST (2.3.0) was just

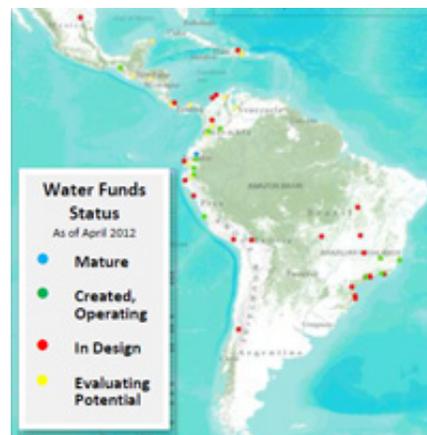
# Water Funds

## Greetings!

The Natural Capital Project is working with the Latin America Water Funds Platform (a partnership among The Nature Conservancy, the Inter-American Development Bank, GEF and FEMSA) to develop a science-based software tool that will standardize water fund investment design. Water is one of the scarcest resources on the planet, and pressures on it will only grow as the human population expands and climate changes. Latin America is making a major effort to address this issue through development of a new conservation financing mechanism known as water funds. The goal of these funds is to improve the management of watersheds, the green infrastructure that supplies, regulates, and cleans water.

## Water Funds in Latin America PRIORITIZING INVESTMENTS

Water funds are a finance mechanism for watershed conservation and provision of clean, ample water. Beneficiaries of a watershed make financial contributions to a fund that is used to promote conservation activities including protection, restoration, and best management practices in crop and pasture lands. Water funds work when these activities supply water, and provide purification and regulation services at lower costs than other forms of treatment and flow regulation such as dams and water treatment plants.



In 2011 the Latin American Water Funds Partnership committed to developing 32 new water funds in Latin America over 5 years, pledging \$27 million to restore over 7 million acres of watersheds (see map above). The Natural Capital project is working with this partnership to develop water funds that represent the interests of multiple stakeholders and maximize the water-related benefits of improved land management. Our work builds on the experiences of existing water funds to develop a standardized and flexible approach to water fund design and investment. Our approach values the environmental returns on watershed investments through hydrological models while accounting for preferences and requirements of stakeholders. Our work in the Cauca Valley has improved the return on investment in their water fund, as watershed conservation efforts are now able to choose the conservation activities and areas for investment to yield the greatest improvements to water quality.

## RIOS: Resource Investment Optimization System

released. Check our website or [sign up](#) to receive the latest information on InVEST and participate in our online user community.

### Water Funds Brochure



A brief overview of the work the Natural Capital Project is doing on water funds in Latin America ([Download pdf](#))

### RIOS Brief



A short summary of our upcoming Resource Investment Optimization System (RIOS) software tool for water funds design ([Download pdf](#))

### InVEST Trainings

**Mexico City -**  
October 23-25

**Portugal -**  
November 5-10

**Stanford -**  
March 2013

### A TOOL FOR WATER FUNDS DESIGN

RIOS is a water funds development tool co-designed with users to improve returns from conservation investments based on a combination of biophysical, social and economic data. The tool has been tested in several emerging water funds across Latin America and has proven useful for managers and flexible enough to apply in different environmental, social, and legal contexts. RIOS is free and designed for companies, consultants, government agencies or non-government organizations to use in the development of water fund investments. It provides decision makers with the best locations on a landscape to spend funds to maximize the ecological return on investment, within the bounds of what is socially and politically feasible. Additionally, RIOS quantifies returns for some of the most desired water benefits including erosion control, water purification, and flood mitigation. Our goal for RIOS is to provide a standardized approach to water fund design and investment prioritization in contexts throughout the world.

Our latest version of RIOS was showcased last month in Lima, Peru at a technical workshop which was attended by water fund managers and stakeholders from across Latin America. This workshop, and two previous ones like it, provided crucial guidance for both the science and practicality of the tool. RIOS's first public release is scheduled for Spring of 2013 but it is available on our website now as a [prototype in development](#).

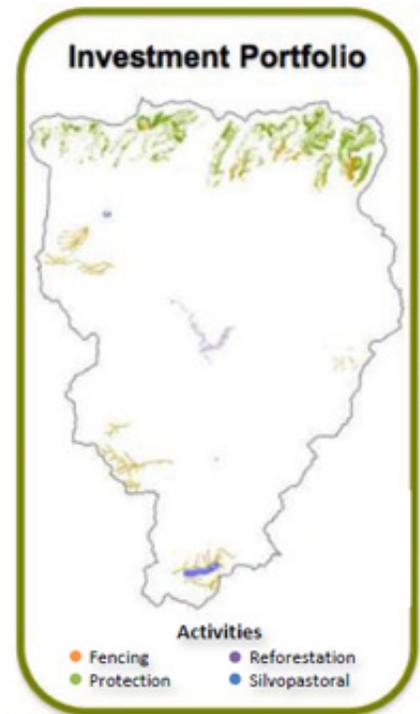
### InVEST 2.3.0

A NEW VERSION OF InVEST

The Natural Capital Project recently released InVEST version 2.3.0, which is now available for [download on our website](#). This major release includes many "InVEST 3.0 Beta" versions of our existing models. The 3.0 versions do not require ArcGIS, although a GIS tool is still needed to edit and view the data inputs and outputs. Budget strapped users and open source supporters can use QGIS or other open source GIS toolkits. The classic ArcGIS-based InVEST models are still available inside an ArcGIS toolbox and will remain so for the foreseeable future. Additionally, the run-times of many of the InVEST 3.0 Beta models have been reduced dramatically. For example, a run of the 2.2.2 version of the InVEST Pollination model at 30 meter resolution takes about 45 hours, yet the InVEST 3.0 Beta version is done in 10 seconds. InVEST 3.0 Beta versions of the following tools are available in this release:

- o Carbon storage and sequestration
- o Pollination
- o Finfish aquaculture
- o Marine Water Quality (a new model only available in the 3.0 framework)
- o Managed Timber Production
- o Hydropower production
- o Wave Energy

This release also includes several bug fixes to a few of the existing ArcGIS-based



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

INVEST models. Full details of the release are available on [our website](#).

## Video

A short video of the work our marine team is doing on marine spatial planning on the west coast of Vancouver Island with a generous grant from the Moore Foundation:

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Science and ecosystem services in decision-making

## Recent Publications

### [Standardized Science for Secure Water](#)

Heather Tallis & Adrian Vogl  
*Science Chronicles*

### [Are There Too Many People on the Planet?](#)

Peter Kareiva  
*Science Chronicles*

### [Closing yield gaps through nutrient and water management](#)

Nathaniel D. Mueller, James S. Gerber, Matt Johnston, Deepak K. Ray, Navin Ramankutty & Jonathan A. Foley  
*Nature* (2012), doi:10.1038/nature11420

### [Where are Cultural and Social in Ecosystem Services? A Framework for Constructive Engagement](#)

Kai M. A. Chan, Anne D. Guerry, Patricia Balvanera, Sarah Klain, Terre Satterfield, Xavier Basurto, Ann Bostrom, Ratana Chuenpagdee, Rachelle Gould, Benjamin S. Halpern, Neil Hannahs, Jordan Levine, Bryan Norton, Mary Ruckelshaus, Roly Russell, Jordan Tam and Ulalia Woodside  
*BioScience*, Vol. 62, No. 8 (August 2012), pp. 744-756

\*Access to full articles may require library access.

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).

**Sincerely,**  
Natural Capital Project

