

## 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.

A new version of

# Natural Capital for Sustainable Land-Use Planning in Sumatra

## Greetings!

The Natural Capital Project (NatCap) is working with WWF- Indonesia and other partners to include natural capital in plans used to guide development and conservation on Indonesia's largest island, Sumatra. One of the planning options (the [Sumatra Vision](#)) resulted in an order of magnitude greater carbon stocks, up to 85% reduction in sediment and nutrient runoff, and enhanced habitat quality for tigers, in addition to providing land for forestry and oil palm production relative to today's levels of those benefits. International investors such as the Millennium Challenge Corporation are recommending that ecosystem service assessments, such as the one conducted with NatCap's Integrated Valuation of Environmental Services and Tradeoffs ([InVEST](#)) software suite, be used to guide priorities for hundreds of millions of dollars in forest investments to reduce greenhouse gas emissions.

## Central Sumatra, Indonesia

### INFLUENCING PUBLIC POLICIES AND INVESTMENTS

The Natural Capital Project's approach to ecosystem services modeling and conservation is becoming part of local land-use planning in Sumatra and guiding investment decisions in the region.

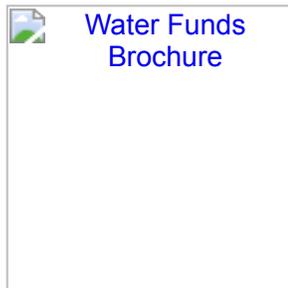


Working with government agencies and local NGOs, we partnered with [WWF-Indonesia](#) to help district and provincial governments consider natural capital as they develop land-use plans in central Sumatra. Rapid proliferation of oil palm plantations and commercial forestry are changing the landscape and provisioning of ecosystem services. Government officials in Sumatra are trying to balance tradeoffs in revenues and livelihoods from these activities with impacts they have on nature and people. By strategically planning where and how development occurs on the landscape, local governments can improve how development activities support people's livelihoods, and maintain critical ecosystem services, such as clean and ample water supplies

To develop comprehensive land-use plans for the region, we worked with stakeholders to develop scenarios of different possible futures- one showing business as usual, and the other balancing conservation and development objectives in 18 districts on Sumatra. We used our [InVEST](#) software suite to map and value how ecosystem services (carbon storage and sequestration, water quality and quantity, and habitat quality for biodiversity conservation) would change under these alternative land-use planning scenarios. Combining this information with input from stakeholders, WWF- Indonesia and partners identified an [alternative land-use plan](#) that would result in higher carbon stocks, reduced sedimentation, cleaner water, and greatly enhanced habitat quality than the current government plan.

InVEST (2.4.4) was just released and includes improvements to the run time of the biodiversity model. [Sign up](#) to receive the latest information on InVEST and participate in our online user community.

### A Green Vision for Sumatra



[A Green Vision for Sumatra](#), a new report, is the first to use ecosystem services information from InVEST to spatially quantify ecosystem services under different land-use planning plans across the region and to help decision makers target incentives for ecosystem service provision in Sumatra.

### Sumatra Brochure



A brief overview of the work the Natural Capital Project is doing on land use planning and

As a result of the analysis and continued work on the ground by WWF- Indonesia, the ecosystem service information has been incorporated into a Strategic Environmental Assessment for Jambi Province. Jambi and several other district governments are now using this information to develop official land-use plans that guide permitting and development decisions for the region.

## The Millennium Challenge Corporation

INVESTING IN INDONESIA

Upon seeing the value added by taking an ecosystem services approach to sustainable land-use planning in Sumatra, the Millennium Challenge Corporation is using it to inform the substantial investments they are making in the region.



The Millennium Challenge Corporation (MCC) is an innovative and independent U.S. foreign aid agency that is helping lead the fight against global poverty. Shortly after the Natural Capital Project and WWF published a new report - [A Green Vision for Sumatra](#) - on sustainable land-use planning in Indonesia, the MCC signed a [Compact](#) with Indonesia, pledging to provide \$600 million in aid to projects in Indonesia over 5 years. This includes the [Green Prosperity Project](#), which is investing \$332 million to increase economic productivity and reduce land-based greenhouse gas emissions, expand renewable energy use, and improve resource management in Indonesia. This initiative will launch in Jambi province on the island of Sumatra. In their latest request for proposals for the Indonesia Compact, the MCC asks for ecosystem service information to be included and specifically mentions the InVEST software suite as a useful tool.

## Inspiring Sustainable Land-Use Planning in Asia

BORNEO AND THE HIMALAYAS

Ecosystem service information is now being used in spatial planning for sustainable development in Kalimantan, on the island of Borneo, where InVEST was used to motivate and design policies and promote investments to create a green economy. Our information informed [Presidential Regulation no.3](#) signed this year, which formalizes a spatial plan for Kalimantan, requiring 45% of the land be designated to protect biodiversity and environmental services.



Government representatives in Bhutan and Nepal are starting to use a natural capital approach for land-use planning in the Himalayas. In order to encourage further consideration of natural capital in land-use planning decisions in the region, the Natural Capital Project and WWF are holding training workshops on our approach and tools in Bhutan and Nepal this December.

## The Power of Trees

A NEW BOOK BY GRETCHEN DAILY AND CHUCK KATZ

A beautiful and touching book-- [The Power of Trees](#) --by Gretchen Daily and Chuck Katz has just been published by Trinity University Press. Twenty-six duotone black and white photographs illustrate the development of trees: how trunks were formed,

conservation in Sumatra ([Download pdf](#)).

For a more detailed review, see our TEEB case study on [Integrating Ecosystem Services into Spatial Planning in Sumatra, Indonesia](#).

## InVEST Trainings

**Portugal -**  
November 5-10

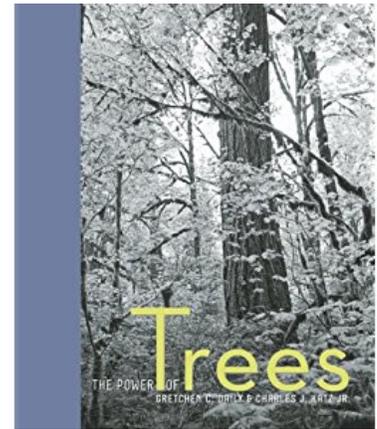
**Stanford -**  
Week of March 11th

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

## Follow Us Online



what tree rings tell us about human societies, and how trees define the future of humanity.



## Recent Publications

### [Environmental sciences: Divided we save](#)

Peter Kareiva reviews Johan Rockstrom's "Bankrupting Nature" *Nature*

### [Are investments to promote biodiversity conservation and ecosystem services aligned?](#)

Stephen Polasky, Kris Johnson, Bonnie Keeler, Kent Kovacs, Erick Nelson, Derric Pennington, Andrew J. Plantinga, and John Withey  
*Oxford Review of Economic Policy*

*\*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).



Try it FREE today.