



The mission of The Nature Conservancy is to preserve the plants, animals and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive.

[Home](#)
[How We Work](#)
[Where We Work](#)
[News Room](#)
[About Us](#)
[My Nature Page](#)
[Press Releases](#)
[Facts & Figures](#)
[Media Contacts](#)

Is There Any Wilderness Left? New Study Examines Exploitation of Natural Resources

[GO](#)

Nature Conservancy
News Room

[News Room Home](#)
[Press Releases](#)
[Search Releases](#)
[Facts and Figures](#)
[Media Contacts](#)
[Ivory-Billed](#)
[Woodpecker News](#)

how you can help

[donate online](#)
[renew membership](#)
[estate planning](#)
[gift ideas](#)
[volunteer](#)
[activities](#)
[merchandise](#)
[magazine](#)
[conservation science](#)
[e-newsletter](#)
[carbon calculator](#)
what's your impact?


Support Conservation
with Every Purchase.



Altering Habitats for Human Needs Has Unforeseen Effects

ARLINGTON, VA — June 28, 2008 — [A new study](#) published today in *SCIENCE Magazine* evaluates the ways that mankind has, over time, significantly altered its environment, resulting in increased vulnerability to natural disasters, species extinction, and disease transmission.

The study, "Domesticated Nature: Shaping Landscapes and Ecosystems for Human Welfare," was conducted by scientists at The Nature Conservancy, Santa Clara University, and Harvard University. It examines specific cases where such alterations — originally intended to increase food production, reduce risk, and enhance global commerce — have ultimately caused negative, unanticipated impacts on human well-being and natural systems.

"The world is at a tipping point whereby the alterations of landscapes and oceans are causing a net decline in human well-being around the world," said [Peter Kareiva](#), chief scientist at The Nature Conservancy and lead author of the report. "The effects of domesticating nature can be seen everywhere, from noticeable problems like pollution to less apparent issues such as devastated coastal zones and deadly algae blooms caused by excessive nutrient run-off into watersheds and river basins."

In the report, researchers noted that throughout history, humans have successfully grazed and cultivated crops, suppressed wildfires, developed coastlines to protect against storm surges, hunted wild species and harvested oceans. These efforts have no doubt enhanced the well-being and quality of life for millions, and the success of global economies can be largely attributed to such alterations of our natural world.

Yet researchers also found that the inadvertent consequences of these adaptations have been appearing with increased frequency in recent decades, and many of these unforeseen effects are negative. For example, the report notes that more than half of the world's [forests](#) have been destroyed as a result of land conversion, and today's experts estimate that [deforestation accounts for nearly 25 percent of all carbon emissions worldwide](#).

Other consequences of domesticating nature highlighted in the report include:

- Increased exposure to hurricanes: Levees intended to protect farmlands can lead to the loss of wetlands downstream, eliminating a vital natural barrier for natural disaster mitigation.
- Species extinction from over-harvesting and hunting: Marine and land ecosystems without top predators can experience dramatic shifts in species populations.
 - In Utah's Zion National Park, the lack of cougars allows predator-free mule deer to roam free - exacerbating stream bank erosion and harming fish.
 - Over-fishing off the coast of Namibia has resulted in blooms of undesirable large jellyfish which had once been an uncommon catch for fishermen. Since the 1970s, the tonnage of unwanted jellyfish caught compared to commercial fish has tripled.
- [Invasive species](#) and disease transmission: Commercial shipping routes created to facilitate global commerce have increased the spread of invasive species around the world (invasive species cause the U.S. \$100 billion per year), and worldwide travel can lead to more rapid disease transmission.

Downloads:

None

Press Release Index:

[Nature Conservancy News Room](#)
[Press Releases](#)
[Search All Press Releases](#)

Contact Information:

Cristina Mestre
The Nature Conservancy
(703) 841-8779
cmestre@tnc.org

The study also notes that 'wild nature' may no longer exist anywhere in the world, because even protected areas such as National Parks are suffering from air pollution, invasive species and erosion problems due to heavy human traffic.

Researchers did note that not all efforts to tame nature produced negative results: For example, while fewer than 40 percent of the world's rivers run wild, dams also provide a significant and clean energy source through hydropower.

Peter Kareiva also noted, "The notion of negative environmental impacts due to humans is not new. Rather, we are emphasizing that altering ecosystems can have both positive and negative consequences."

He continued, "If we think of everything as a tradeoff, we must then ask ourselves, 'What price do we pay by promoting more food production, or by killing large predators? What natural services will we lose as a result of these decisions – and how can we mitigate those losses?'"

The authors of the paper also emphasize a forward-looking approach to conservation, taking into account demographics, population growth patterns, and management of protected areas.

"To a conservationist interested in sustainability, we have degraded nature, but to an agronomist, we have altered wild land to better serve humans," concluded Kareiva. "Yet nature domestication can in fact be beneficial for people and for the environment. Nations and institutions need to thoroughly examine the tradeoffs and possible impacts of restructuring landscapes and oceans in order to prevent irreparable damages."

The Nature Conservancy is a leading conservation organization working around the world to protect ecologically important lands and waters for nature and people. To date, the Conservancy and its more than one million members have been responsible for the protection of more than 15 million acres in the United States and have helped preserve more than 102 million acres in Latin America, the Caribbean, Asia and the Pacific. [Visit The Nature Conservancy on the Web at www.nature.org](http://www.nature.org).



Tell a friend



Subscribe to our news feed

[Carbon Calculator](#)

[Site Map](#)

[Contact Us](#)

[Help/FAQs](#)

[Careers](#)

[Privacy](#)

[Governance](#)

[Financials](#)

[Legal Disclosure](#)

Copyright © 2007 The Nature Conservancy