SAFEGUARDING OUR NATURAL RESOURCES FROM GLOBAL WARMING:

Creating Green Jobs for America

Global warming poses an unprecedented threat to the survival of the natural world and the fish and wildlife Americans cherish. With the passage of the American Clean Energy and Security Act in the House of Representatives, the Senate now has a historic opportunity to revive the rural economy and create new American jobs while securing clean air and water for future generations. In order to protect our communities and economy, climate and energy legislation must dedicate 5% of total allowance value to safeguarding our natural resources from changing climates.

Our Economy and Public Health Rely on Our Natural Resources

Natural systems provide goods, such as food and medicine, and life-support services essential to human life. These "ecosystem services" include filtering the air we breathe and the water we drink, generating fertile soils, controlling pests that destroy crops, providing habitat for wildlife, sequestering carbon and controlling floods. What is this worth?

To give an idea of the scale of natural resources' contribution to our economy, if outdoor recreation related activities such as camping, fishing, hunting and wildlife viewing were one business, it would rank in the top 10 of Fortune 500 companies. [1]

One out of every 20 jobs in this country is linked to wildlife related activities, goods and services and these activities stimulate 8% of all consumer spending.[1]

Other examples of our natural resources' value include:

Agriculture:
$7.6 billion

Insects and Agriculture: More than 30% of our food crops rely on the services of pollinators. The combined value of native insect pollination and pest control services is estimated at $7.6 billion per year. [2]

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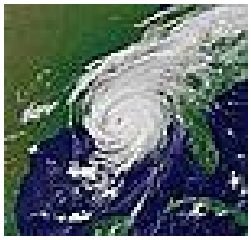
Drinking Water: **$4.3 billion**

Drinking Water: A conservative estimate for the value of water flowing from our national forests is more than $4.3 billion annually.[3] The Catskill watershed provides New York City with most of its clean drinking water. Replacing the water filtration services provided by this watershed with a treatment plant would cost nearly $8 billion plus annual operating costs of $300 million.[4]



Coastal Storm Protection: Coastal marshes and mangroves are essential barriers for protecting coastal and inland communities from storm surges. A recent study estimates that these storm-protection services are worth more than $23 billion annually.[5]

Storm Surge Protection: **$23 billion**

Raw Materials: **$130 billion**

Raw Materials: Non-timber products from forest ecosystems, including edible plants and medicines, have an estimated value of $5 billion annually. When combined with the timber industry, raw materials have an estimated value of $130 billion. The timber industry alone generates over 500,000 jobs annually.[6]

Global Warming Threatens Communities Dependent Upon Fish, Wildlife and Natural Resources

The IPCC warns that mid-range climate warming could cause 20 – 30 percent of the Earth's plants and animals to go extinct between now and 2050. [7]

Yet the effects of global warming are already being felt across the planet. More than any time during the history of the earth, nature is threatened as climate change is happening more rapidly than ever before and additional stressors, such as development, pollution and population, exacerbate the impacts and impede the ability of nature to adapt and survive. In the developing world it is not uncommon for 80% of the population to be dependent on their natural resources for survival**.**

Even with immediate action to reduce greenhouse gas pollution, the following effects will continue for decades to come:

- Drought and Declining Snowpack
- Warming of Rivers, Lakes, Streams and Estuaries

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- Increased Coastal Flooding
- Sea Level Rise
- Ocean Acidification
- Increased Wildfire
- Invasive Species
- Changes in seasonal events that disrupt wildlife and ecological communities

More than 80% of plants and animals studied are shifting their ranges because of warming.[7]

At risk are the ecosystem services discussed above, and the many other benefits we receive from healthy natural systems. Not only is our economy at risk, but our public health and well-being also rely on vibrant natural systems and healthy fish and wildlife populations.

Protecting Fish, Wildlife and Natural Resources Will Create Jobs and Protect Our Economy

Dedicated funding through a cap-and-trade system is essential to help resource managers at the federal, state, and tribal levels enhance the resiliency and sustainability of fish and wildlife and critical natural resources. These funds will allow state, tribes and federal agencies to develop science-based strategies and provide crucial support for job-creating conservation activities. Across the country scientists, engineers, construction crews and others will be employed:

- Restoring native landscapes to increase ecosystem resiliency in a warming world and maximize carbon sequestration and storage potential
- Protecting communities and providing more flexibility and support in wildland fire management, a challenge that will only grow with climate change
- Removing invasive species from natural areas
- Repairing damaged watersheds

By investing in a skilled workforce dedicated to safeguarding our native ecosystems, we can help protect our communities' most valuable assets for generations—while creating jobs today.

Human health depends on the health of our forests, parks, public lands and open spaces. Since the founding of our nation, our natural wealth has provided services and raw materials that fuel the engine of our economy. Restoring the health of our economy is inextricably linked to restoring the health of our natural systems – our green infrastructure.

Our natural systems are already stressed by climate-related impacts such as extreme weather events, prolonged fire and pest seasons, drought and erosion. Taking on these challenges through dedicating a portion of cap-and-trade auction proceeds will create American jobs, providing new skills and income to workers and their families across the nation, particularly in rural communities.

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[1] Outdoor Industry Foundation. 2007. "The Active Outdoor Recreation Economy. A $730 Billion Annual Contribution to the U.S. Economy." Available from: http://www.outdoorindustry.org/images/researchfiles/RecEconomypublic.pdf?26

[2] Aloso, A. et al. 2007. Pg. 10; Losey, John E. and Mace Vaughan. 2006. "The Economic Value of Ecological Services Provided by Insects." *Bioscience*. 56: 4. Pgs. 311-323.

[3] Sedell, James, Maitland Sharpe, Daina Dravnieks Apple, Max Copenhangen and Mike Furniss. 2000. "Water and the Forest Service." U.S. Forest Service. Pg. 26.

[4] Aloso, A. et al. 2007. *Biodiversity: Connecting with the Tapestry of Life*. Second Ed. Washington, DC: Smithsonian Institution Monitoring and Assessment of Biodiversity Program.

[5] Costanza, Robert et al. 2008. "The Value of Coastal Wetlands for Hurricane Protection." *Ambio*. 37: 4. Pg. 241.

[6] Krieger, Douglas J. 2001. "Economic Value of Forest Ecosystem Services: A Review." The Wilderness Society; and Hodgetts, Rachel and Roseanne Freese. 2000. "An Economic Overview of the United States Solid Wood Industry." U.S. Department of Agriculture: Foreign Agricultural Service.

[7] United Nations Environmental Programme 2007. "IPCC Synthesis Report: Risks And Rewards Of Combating Climate Change.";
Sagarin, Raphael. 2002. "Historical Studies of Species' Response to Climate Change." In: *Wildlife Responses to Climate Change: North American Case Studies*. Ed. Terry L. Root and Stephen H. Schneider. Washington DC: Island Press. Pg. 39.

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