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Crunch may spur rethink of nature as 'free'

Reuters, 21 October 2008 - The worst financial crisis since the 1930s may be a chance to put price tags on nature in a radical economic rethink to protect everything from coral reefs to rainforests, environmental experts say.

Farmers know the value of land from the amount of crops they can produce but large parts of the natural world -- such as wetlands that purify water, oceans that produce fish or trees that soak up greenhouse gases -- are usually viewed as "free".

"Most of our valuable assets are not on the books," said Robert Costanza, professor of ecological economics at the University of Vermont. "We need to reinvent economics. The financial crisis is an opportunity."

Advocates of "eco-nomics" say that valuing "natural capital" could help protect nature from rising human populations, pollution and climate change that do not figure in conventional measures of wealth such as gross domestic product (GDP) or gross national product (GNP).

"I believe the 21st century will be dominated by the concept of natural capital, just as the 20th was dominated by financial capital,"

Achim Steiner, head of the U.N. Environment Programme, told Reuters at the International Union for Conservation of Nature congress in Barcelona earlier this month.

"We are reaching a point...at which the very system that supports us is threatened," he said.

Conventional economists often object it is impossible to value an Andean valley or the Caribbean. "We have struggled with nature-based services: how does a market begin to value them?" Steiner said.

Costanza helped get international debate underway a decade ago with a widely quoted estimate that the value of natural services was \$33 trillion a year -- almost twice world gross domestic product at the time.

INFINITY

Some economists dismissed Costanza's \$33 trillion as an overestimate.

Others pointed out that no one would be alive without nature, so its value to humans is infinite.

"There is little that can be usefully be done with a serious underestimate of infinity," economist Michael Toman said at the time.

But with the seizure of world money-markets bringing -- for some, at least -- an opportunity to rethink modern capitalism's basic tenet that greed and self-interest can counterbalance each other, more environmental experts hope to revisit nature's role in producing food, water, fuels, fibres or building materials.

"The financial crisis is just another nail in the coffin" of a system that seeks economic growth while ignoring wider human wellbeing, said Johan Rockstrom, executive director of the Stockholm Environment Institute.

Under standard economics, nations can boost their GDP -- briefly -- by chopping down all their forests and selling the timber, or by dynamiting coral reefs to catch all the fish. A rethink would stress the value of keeping nature intact.

Rockstrom said bank bailouts totalling hundreds of billions of dollars might "change the mindset of the public...if we are willing to save investment banks, why not spend a similar amount on saving the planet?" he said.

And there are ever more attempts to mix prices and nature.

The European Union set up a carbon trading market in 2005 to get industries such as steel makers or oil refineries to cut emissions of greenhouse gases, blamed for global warming.

Ecuador has asked rich countries to pay it \$350 million a year in exchange for not extracting 1 billion barrels of oil in the Amazon rainforest.

BHUTAN

The Himalayan kingdom of Bhutan has shifted from traditional gross national product to a goal of "gross national happiness", which includes respect for nature.

And in U.N. talks on a new climate treaty, more than 190 nations are considering a plan to pay tropical nations billions of dollars a year to leave forests alone to slow deforestation and combat global warming.

"We want to see a shift to valuing ecosystems," Norwegian Environment Minister Erik Solheim said. Oslo has led donor efforts by pledging \$500 million a year to tropical nations for abandoning the chainsaw and letting trees stand.

Deforestation accounts for about a fifth of all greenhouse gas emissions by mankind. Trees soak up carbon dioxide, the main greenhouse gas, as they grow, and release it when they rot or are burnt, usually to clear land for farming.

UNEP's Steiner said long-standing objections that it is too hard to value ecosystems were dwindling as economists' ability to assess risks improved.

A report sponsored by the European Commission and Germany in May estimated that humanity was causing 50 billion euros (\$67.35 billion) in damage to the planet's land areas every year.

And a 2006 report by former World Bank chief economist Nicholas Stern said that unchecked global warming could cost 5 to 20 percent of world GDP, damaging the economy on the scale of the world wars or the Great Depression.

Steiner said stock market plunges, or a halving of oil prices since peaks of \$147 a barrel in July, showed that environmental experts were not the only ones who had trouble valuing assets.

A 2005 Millennium Ecosystem Report also said that natural systems were worth more intact than if converted.

It said a Canadian wetland was worth \$6,000 a year per hectare, and just \$2,000 if converted to farmland. A hectare of mangrove in Thailand was worth \$1,000 a year -- producing fish or protecting against coastal erosion -- against \$200 if uprooted and converted to a shrimp farm.

Costanza, in a letter to the journal *Science* with a colleague earlier this year, said one way to value nature would be to set up a government-backed system to trade all greenhouse gas emissions and channel the revenues, estimated at \$0.9-\$3.6 trillion a year, into an "Earth Atmospheric Trust".

If half the cash were shared out, each person on the planet would get \$71-\$285 a year, a big step towards ending poverty. The rest could go to renewable energy and clean technology.

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