



LETTERS

edited by Jennifer Sills

Creating an Earth Atmospheric Trust

STABILIZING CONCENTRATIONS OF GREENHOUSE GASES IN THE EARTH'S ATMOSPHERE AT A level that will control climate change will require drastic departures from business as usual. Here, we introduce one response to this challenge that may seem visionary or idealistic today, but that could become realistic once we reach a tipping point that opens a window of opportunity for embracing major changes.

The core of this system is the idea of a common asset trust. Trusts are widely used and well-developed legal mechanisms designed to protect and manage assets on behalf of specific beneficiaries. Extending this idea to the management and protection of a global commons, such as the atmosphere, is a new but straightforward extension of this idea. Because the atmosphere is global, the Earth Atmospheric Trust would be global in scope; however, initial implementation at a regional or national scale may be necessary. We provide an outline of the steps that must be taken to create and manage such a system.

- (i) Create a global cap-and-trade system for all greenhouse gas emissions. We believe a cap-and-trade system is preferable to a tax, because the major goal is to cap and reduce the quantity of emissions in a predictable way. Caps set quantity and allow price to vary; taxes set price and allow quantity to vary.

Balancing act. Sustainable human well-being depends on a balance of built, human, social, and natural capital assets. An Earth Atmospheric Trust might better manage the atmospheric commons to control climate change.

- (ii) Auction off all emission permits, and allow trading among permit holders. This essential act will send the right price signals to emitters.

- (iii) Reduce the cap over time to stabilize concentrations of greenhouse gases in the atmosphere

at a level equivalent to 450 parts per million of carbon dioxide (or lower).

- (iv) Deposit all the revenues into an Earth Atmospheric Trust, administered by trustees serving long terms and provided with a clear mandate to protect Earth's climate system and atmosphere for the benefit of current and future generations.

- (v) Return a fraction of the revenues derived from auctioning permits to all people on Earth in the form of an annual per capita payment. This dividend will be insignificant to the rich but will be enough to be of real benefit to many of the world's poor people. At the current annual rate of global emissions of 45 gigatons CO₂ equivalent and an auction price of \$20 to \$80 per ton, the Trust's total annual revenues would be \$0.9 to \$3.6 trillion. If half the revenues were returned equally to all 6.3 billion people, payment would amount to

\$71 to \$285 per capita per year.

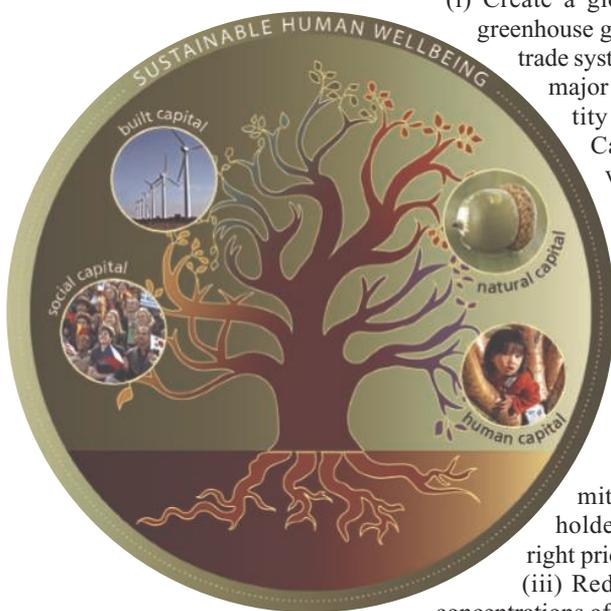
(vi) Use the remainder of the revenues to enhance and restore the atmospheric asset, to encourage both social and technological innovations, and to administer the Trust. These funds could be used to fund renewable energy projects, research and development on new energy sources, or payments for ecosystem services such as carbon sequestration.

No system is perfect. A system designed on these general principles would be fair; it would be efficient and relatively immune to political manipulation, and it would help to alleviate global poverty.

We encourage those interested in adding their name to a growing list of supporters of this idea to visit www.earthinc.org/earth_atmospheric_trust.php.

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The Latest Buzz About Colony Collapse Disorder

THE REPORT "A METAGENOMIC SURVEY OF microbes in honey bee colony collapse disorder" (D. L. Cox-Foster *et al.*, 12 October 2007, p. 283) identified Israeli acute paralysis virus (IAPV) as a putative marker for colony collapse disorder (CCD). It also purports to show a relationship between U.S. colony declines as early as 2004 and importations of Australian honeybees. We believe these links are tenuous for several reasons: (i) Importations of Australian honeybees to the United States did not commence until 2005. (ii) No evidence is presented for a causal link between IAPV and CCD. Koch's postulates, as modified for

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