



No one can do everything. Everyone can do something. Water is a precious resource, so when you're designing a garden, consider options for collecting or reusing water that would normally be "wasted." Set up a rainwater collection system or reuse bathwater with a graywater recycling system. Once you've collected the water, remember that the best time to give plants a drink is in the morning, when less will be lost to evaporation. From *The Green Life*.

Thanks to Joni Packard, Mark Buccowich, Trey Schillie, Al Steele, and everyone else who contributed to this edition of the Carbon & Ecosystem Services Update!

News:

general / carbon

Lower Increases In Global Temperatures Could Lead To Greater Impacts Than Previously Thought, Study Finds

A new study by scientists updating the findings of the Intergovernmental Panel on Climate Change 2001 Third Assessment Report finds that even a lower level of increase in average global temperatures due to greenhouse gas emissions could cause significant problems in five key areas of global concern.

<http://www.sciencedaily.com/releases/2009/02/090223221425.htm>

Scientists warn of 'irreversible' climate shifts

Hundreds of leading scientists warned Thursday that global warming is accelerating beyond the worst predictions and threatening to trigger "irreversible" climate shifts on the planet.

http://seattletimes.nwsourc.com/html/nationworld/2008835298_apeudenmarkclimatechange.html

EPA Moves on Obama Climate Policy

The first moves on reversing US climate policy under the Obama administration are underway, with the US federal Environment Protection Agency (EPA) spearheading the plans of its new political masters. This month, the EPA is seen moving on three fronts to reverse previous positions set by Bush administration policy of not regulating greenhouse gas emissions said to be causing global warming.

<http://www.carbonpositive.net/viewarticle.aspx?articleID=1448>

S & P Launches US Carbon Efficient Index

In response to growing demand from investors for environmentally focused indices, Standard & Poor's has launched the S&P U.S. Carbon Efficient Index that will measure the performance of large cap U.S. companies with relatively low carbon emissions, while closely tracking the return of the S&P 500.

<http://www.environmentalleader.com/2009/03/11/sp-launches-us-carbon-efficient-index/>

Watch for RGGI to be Oversupplied in 2009

Carbon dioxide emissions from the 10 states participating in the Regional Greenhouse Gas Initiative (RGGI) fell by 8.9% in 2008, as compared to 2007, according a report from carbon market firm Point Carbon.

<http://www.businessinsider.com/watch-for-rggi-carbon-market-to-be-oversupplied-in-09-2009-3>

Timber Companies and Environmental Groups Agree on the Outline of a Climate Plan

The issue has been a knotty one: Cutting down domestic forests, which every year soak up 10 percent of U.S. fossil fuel emissions, could mean disaster for both climate and wildlife. The flip side of the coin is that managing them well would mean major greenhouse gas benefits.

<http://www.nytimes.com/cwire/2009/02/19/19climatewire-timber-companies-and-environmental-groups-agr-9781.html>

Ethanol Plants No Panacea For Local Economies, Study Finds

Just over a year ago, the US ethanol industry was still in overdrive, fueling a wave of new factories to keep pace with surging demand for the corn-based gasoline additive. But the boom has since stalled amid a deep economic downturn that has stifled demand, one of many threats to the fledgling industry that were forecast in a 2007 study.

<http://www.sciencedaily.com/releases/2009/02/090217104441.htm>

Assisted Colonization Key To Species' Survival In Changing Climate

Species are adapting slowly to climate change and "assisted colonization" can play a vital role in helping wildlife to survive in a warming world.

<http://www.sciencedaily.com/releases/2009/02/090217212302.htm>

Recession Hits Voluntary Carbon Prices

The global economic downturn has caught up with the voluntary carbon market in early 2009 sending prices and trading volumes sharply downward, according to carbon market analysts New Carbon Finance (NCF).

<http://www.carbonpositive.net/viewarticle.aspx?articleID=1449>

Death by sound bites? The language of the cap-and-trade debate

For Rep. Edward Markey (D-Mass.), it is "cap and invest." National Aeronautics and Space Administration climatologist James Hansen says it is "tax and trade." Then there are "cap and cash back" and "cap and dividend," mottoes promoted by environmental investing expert Peter Barnes to describe proposals to cap greenhouse gases, often called "cap and trade."

Full text available at end of article or by subscription here:

<http://www.eenews.net/climatewire/2009/03/05/1/>

Seeing the forests to save them

Suburban development in the South is chipping away at some of the most biologically diverse and temperate forests in the country, depriving the country of one of its greatest sources of carbon storage. The United States loses approximately 1 million acres of Southern forests each year, according to Craig Hanson, director of the World Resources Institute's People and Ecosystems program. But, he said, it is difficult to see the magnitude of change, since the forests are cleared a little at a time.

Full text available at end of articles or by subscription here:

<http://www.eenews.net/climatewire/2009/03/05/5/>

California Climate Change Extension Website Launched

Welcome to the California Climate Change Extension website. Here you can access cutting edge scientific information about climate change in California.

<http://groups.ucanr.org/CAClimateChangeExt/>

Video: Climate Policy Briefing – Domestic Offsets

The Pew Center held a Congressional briefing on the role and function of domestic offsets in a mandatory GHG cap-and-trade system. Given the importance of offsets as a cost-containment measure in cap-and-trade system design, the intent of this briefing was to show that domestic offsets can be a viable and reliable way of achieving low-cost GHG emissions reductions.

<http://www.pewclimate.org/federal/congress/briefing/domestic-offsets/03-06-09>

In this week's edition of the PointCarbon Newsletter:

Lawmakers grapple with strategies to pass climate bill

RGGI prices and market commentary
US EPA unveils GHG reporting rule
US government misjudged CCS pilot costs: GAO
RGGI overallocated in 2009: report
NY considers upping free RGGI allowances
California attempts low-carbon fuel standard
Washington state's governor still committed to cap and trade
Global carbon market news

<http://www.pointcarbon.com/news/cmna/1.1077526>

And, just a general FYI:

The VCS website has been updated with a FAQs page answering over 30 of the questions most commonly asked about the VCS Program. Topics include additionality, methodologies, validation & verification, and the VCS Registry System. <http://www.v-c-s.org/faq.html>

water / biodiversity:

Action Needed to Avoid World Water Crisis, UN Says

The world needs to act urgently to avoid a global water crisis due to increased population, rising living standards, dietary changes and more biofuels production, the United Nations warned on Thursday.

<http://www.reuters.com/article/environmentNews/idUSTRE52B7RT20090313?feedType=RSS&feedName=environmentNews>

Is H2O the New CO2?

When it comes to urgent environmental crises, water is clearly in a class of its own. Few other issues have the same far-reaching impact on human health and well-being, economic sustainability, or national security. After all, you can live without oil; you can't live without water. So it's no surprise that many of the latest environmental campaigns along with a growing media debate are posing the question, "Is water the new carbon?"

<http://www.triplepundit.com/pages/is-h2o-the-new-co2.php>

An Overview of Water Scarcity and Water Market Development

Water scarcity is one of the most complex and pressing issues facing the arid western US. Compared with other economic sectors, irrigated agriculture remains the largest user of freshwater accounting for approximately between 70 and 95 percent of total water withdrawals.

<http://www.rgi.com/article/20090313/MVN01/903130327/1305/BIZ01>

Oregon Experiments with Mixed Credits

California and Oregon have long been friendly environmental policy rivals. California has set environmental standards in many areas, particularly air quality. Oregon wrote the first bottle bill, the first state land-use law, and the first state climate-change law. But on the species banking front, California dominates, 94 to 2. An innovative new multi-credit system being pioneered in the Willamette Valley could change the game.

http://ecosystemmarketplace.com/pages/article.news.php?component_id=6611&component_version_id=9873&language_id=12

Buy, Sell and Trade! Free Game on Ecosystem Services.

IUCN and the World Business Council for Sustainable Development (WBCSD), along with input from key stakeholders (Earthwatch Institute, World Resources Institute, Katoomba Group/Forest Trends, the US Business Council for Sustainable Development and Fundacion Entorno) have developed a free, interactive and fun game about how ecosystem markets work.

<http://iucn.org/about/work/programmes/economics/?2578/Buy-Sell-and-Trade-Free-Game-on-Ecosystem-Services>

Journal Articles:

Campbell, J.L.; Rustad, L.E.; Boyer, E.W.; Christopher, S.F.; Driscoll, C.T.; Fernandez, I.J.; Groffman, P.M.; Houle, D.; Kiekbusch, J.; Magill, A.H.; Mitchell, M.J.; Ollinger, S.V. 2009. Consequences of climate change for biogeochemical cycling in forests of northeastern North America. *Canadian Journal of Forest Research* 39, 264-284. <http://dx.doi.org/10.1139/x08-104>

Dukes, J.S.; Pontius, J.; Orwig, D.; Garnas, J.R.; Rodgers, V.L.; Braze, N.; Cooke, B.; Theoharides, K.A.; Stange, E.E.; Harrington, R.; Ehrenfeld, J.; Gurevitch, J.; Lerdau, M.; Stinson, K.; Wick, R.; Ayres, M. 2009. Responses of insect pests, pathogens, and invasive plant species to climate change in the forests of northeastern North America: What can we predict? *Canadian Journal of Forest Research* 39, 231-248. <http://dx.doi.org/10.1139/x08-171>

Huntington, T.G.; Richardson, A.D.; McGuire, K.J.; Hayhoe, K. 2009. Climate and hydrological changes in the northeastern United States: recent trends and implications for forested and aquatic ecosystems. *Canadian Journal of Forest Research* 39, 199-212. <http://dx.doi.org/10.1139/x08-116>

Mohan, J.E.; Cox, R.M.; Iverson, L.R. 2009. Composition and carbon dynamics of forests in northeastern North America in a future, warmer world. *Canadian Journal of Forest Research* 39, 213-230. <http://dx.doi.org/10.1139/x08-185>

Speer, J.H.; Grissino-Mayer, H.D.; Orvis, K.H.; Greenberg, C.H. 2009. Climate response of five oak species in the eastern deciduous forest of the southern Appalachian Mountains, USA. *Canadian Journal of Forest Research* 39, 507-518. <http://dx.doi.org/10.1139/x08-194>

Full Text of Selected Articles:

POLITICS: Death by sound bites? The language of the cap-and-trade debate (03/05/2009)

Christa Marshall, E&E reporter

For Rep. Edward Markey (D-Mass.), it is "cap and invest." National Aeronautics and Space Administration climatologist James Hansen says it is "tax and trade."

Then there are "cap and cash back" and "cap and dividend," mottoes promoted by environmental investing expert Peter Barnes to describe proposals to cap greenhouse gases, often called "cap and trade."

Language even popped up in February as a jurisdiction issue in Congress, when Rep. James Sensenbrenner (R-Wis.) and four other House Republicans argued that leading plans to address climate change are actually a "cap and tax" and therefore should begin their legislative path in the House of Representatives, since the Constitution states that all revenue bills must originate there.

Aware of the ability of slogans like "No Child Left Behind" to drive the debate on past topics, policymakers are ramping up their rhetoric about global warming like never before. All sides have opportunities to gain political traction by choosing their words carefully, even if President Obama's opponents appear to have the current edge in the communication war, many analysts say.

"Language is the key to everything, even if only five Americans understand the details of these proposals," said Dane Strother, a Democratic political consultant.

Phrase soup: hot, but not very nourishing

Much of the phrase soup exists because of different versions of cap and trade, a concept that is already plenty complicated. It would restrict the total amount of greenhouse gases that companies emit and force them to buy credits if they spew more than the allowed amount.

Policymakers have competing ideas about how to distribute the resulting money that would come into the U.S. Treasury. Some want to return the cash to Americans through a regular "dividend" or "rebate." Others want to "invest" it to boost research in clean energy technologies. Obama wants to recycle much of the revenue to the public through tax credits and uses "cap and trade" as his preferred phrase.

Several analysts said that opponents of the cap concept have found an effective tool in the word "tax," which has generated anger in the minds of Americans going all the way back to the Boston Tea Party. That word alone could do significant damage to Obama's plans, said George Lakoff, a professor of cognitive linguistics at the University of California, Berkeley.

"If 'cap and tax' becomes the defining term, it's going to take us six months to redefine it," added Strother. Environmental issues are a tough sell even in good economic times, he said, making the current environment especially difficult.

A Republican aide on Capitol Hill said some GOP members are ramping up use of the word "scheme" in describing a cap, since "it sounds devious" in the wake of the Wall Street meltdown.

'Tax' is the preferred 'attack mechanism'

According to Matthew Nisbet, an assistant professor of communication at American University, the slew of phrases poses an additional problem for the president, particularly since opponents appear united around "tax" as an attack mechanism.

With polls showing that the American public continues to rank climate change low on its radar in comparison to other concerns, the pro-cap crowd needs to get behind one set of talking points, he said. The president should counterattack to a degree, he said, but should use allies from interest groups, the religious community and the Republican party to flood the media with a positive message and control the news cycle. In his view, a monthlong marketing campaign is needed to demonstrate in a tangible way how a global-warming bill could benefit local communities and spur "green" jobs.

"I do think there is a big danger [for Obama] to get distracted by climate skeptics and spend too much time on the defensive," said Nisbet.

In Lakoff's view, the best way to sell a cap on greenhouse gases is to get across the idea of "ownership of the air." He recommended that the administration make the argument that "polluters" have been releasing carbon dioxide for a long period of time and should have to pay "dumping fees."

The "cap and dividend" or "cap and cash back" approach is the only way to capitalize on that type of language, he said. A cap should be tied to a regular check in the mail clearly stating that individuals hold a stake in the air, in much the same way they would hold stock in a company, he said.

"A tax credit is too hidden for most people," he said.

Try, maybe, 'cap and invest'?

Recent research provides additional advice on linguistics for the president.

In a soon-to-be-released paper, Stanford University professor Jon Krosnick reports that many people are reluctant to endorse cap and trade because they are skeptical that it would reduce emissions.

Only after being presented with language pointing out that a similar program helped reduce acid rain in the 1990s did his survey subjects warm to the idea. Krosnick said Obama should focus on the acid-rain example and not waste valuable time talking about how a cap would be enforceable or efficient.

"If public voices now use terms like 'cap and invest' instead of 'cap and trade,' listeners will realize this is code language for something, and they'll want to know what the something is," he said. "Once people learn what the term means, the particular words in the label won't have influence."

The use of language by politicians to shape the public psyche is nothing new. In the 1990s, many conservatives tried to repeal a tax on the estates of deceased individuals by calling the law "the death tax." President Bill Clinton's health care proposal, which incorporated recommendations from a task force headed by then-first lady Hillary Rodham Clinton, was slammed as "Hillarycare."

During the presidency of George W. Bush, Democrats countered an attempt to create "personal" accounts for Social Security with the mantra that they were "private" accounts that would unravel one of the most popular programs in U.S. history.

Beyond the cap-and-trade question, players on all sides of the climate debate have been trying to gain a communication advantage for years. The wrangling goes back to at least 2003, when Republican pollster Frank Luntz circulated a memo arguing that "climate change" was a less frightening term than "global warming," prompting a terminology shift among many conservatives.

'Clean coal' vs. 'carbon charge'

These days, there's an ongoing advertising war about the phrase "clean coal," with environmentalists arguing that there is no such thing and industry leaders suggesting that commercial technology to capture and sequester carbon dioxide from power plants is on the verge of implementation. Supporters of carbon offsets, or offsets for projects that reduce the level of carbon dioxide in the atmosphere, sometimes call them "emission reduction projects."

And some supporters of a carbon tax, like Cecil Corbin-Mark, executive director of environmental justice group WE ACT, are using the phrase "carbon charge," aware of public distrust of the "T" word.

An issue whose public image closely resembles that of climate change is the theory of evolution, in that it deals with a concept widely accepted by scientists but that is not visible to people on a daily basis, said Tarla Peterson, a professor at Texas A&M University who has studied environmental rhetoric.

One lesson to be learned from the scuffle on that topic is that it doesn't help proponents of an issue to get bogged down in arguments about scientific certainty. Doing so just confuses the public, she said.

Instead, it would be better for backers of a greenhouse gas cap to reassure people that such a plan won't change their life that much, despite its complexity.

"Selling change is hard work in itself," she said. "The more Obama ties this issue to the status quo, the more effective he will be."

CARBON STORAGE: Seeing the forests to save them (03/05/2009)

INCLUDEPICTURE "http://ads.eenews.net/adview.php?what=zone:104&n=adc3a79f" *

MERGEFORMATINET Lea Radick, E&E reporter

Suburban development in the South is chipping away at some of the most biologically diverse and temperate forests in the country, depriving the country of one of its greatest sources of carbon storage. The United States loses approximately 1 million acres of Southern forests each year, according to Craig Hanson, director of the World Resources Institute's People and Ecosystems program. But, he said, it is difficult to see the magnitude of change, since the forests are cleared a little at a time.

Soon, though, people will be able to witness the thinning over time, with the introduction of a Web site in 2010 called "See My Forest." The site, funded by Toyota Motor Corp. and developed by WRI, will allow viewers to scroll over time-sequenced maps of the region.

Hanson said the aim of the three-year project is increase awareness about the value of Southern forests -- which are among the most biologically diverse and temperate in the world and in the United States -- and the threats they face. Mapping, he said, allows schoolchildren, nonprofit groups and others to get a visual appreciation of the status of the forests.

"As we lose U.S. forests, we're losing the ability to sequester carbon," he said. "We have to reduce greenhouse gas emissions in this country, but as we whittle away some of our forests, we're shooting ourself in the foot."

The organization also aims to identify, develop, test and implement ways to conserve valuable lands through its Southern Forests for the Future project, which Toyota is funding with a \$1.49 million grant over three years.

Trees, along with soil and ground cover, absorb carbon, and forests are considered one of the United States' largest carbon sinks, Hanson said. Forests absorb 12.8 percent of the nation's gross greenhouse gas emissions, according to the draft review of the U.S. EPA's 2007 inventory of U.S. greenhouse gas emissions and sinks.

"I think this really does get people to maybe make decisions for forest restoration and forest preservations that they might be tempted to make a different decision if they have different financial incentives," said Steve Running, an ecologist and bioclimatologist at the University of Montana, adding that the more forestland there is, the better.

"There's only a small fraction of people willing to preserve forest when it's against their financial interests," he said.

Insect epidemics and wildfires pose greater threats than development to forests throughout the country, according to Running.

"Those are the really two big disturbances that we're seeing in a number of parts of the country," he said, adding that even Southern forests are susceptible to fires when they experience drought, because they are so accustomed to wet conditions. A few months of lower rainfall can place Southern forests in danger, he said, adding that fire activity in parts of Southeastern forests has increased in the last few decades.

Hanson said the group also plans to work on conservation, likely tackling those issues in the project's second year. He noted that private landowners now own about half of forests in the southern United States and suggested that the group would look at imposing recreational user fees on privately owned land and at carbon offset projects.

"We have to find ways to align economic incentives with people to help them keep forests as forests," he said.

Toyota spokesman Daniel Sieger said the company is funding the project as a philanthropic effort.

"We as a company try to do what we can to help the environment," Sieger said.