



Newsletter

INFORMATION RESOURCE CENTER
Embassy of the United States of America
Budapest • Hungary

Environmental Issues

September 2009

Summit on
Climate Change

Power Green Growth,
Protect the Planet



Nearly 100 world leaders accepted UN Secretary-General Ban Ki-moon's invitation to participate in an historic Summit on Climate Change in New York on 22 September to mobilize political will and strengthen momentum for a fair, effective, and ambitious climate deal in Copenhagen this December.

"Failure to reach broad agreement in Copenhagen would be morally inexcusable, economically short-sighted and politically unwise," the Secretary-General said in his opening address. "Now is the moment to act in common cause."

"There is little time left. The opportunity and responsibility to avoid catastrophic climate change is in your hands," Mr. Ban said, closing the day-long Summit on Climate Change.

The Summit marked the first UN visit for the Presidents of China and the United States as well as the newly elected Prime Minister of Japan.

<http://www.un.org/wcm/content/site/climatechange/lang/en/pages/2009summit>

President Barack Obama addresses the Summit on Climate Change (AP Photo)

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THE MONSTER FOOTPRINT OF DIGITAL TECHNOLOGY. De Kecker, Kris. *Low-Tech Magazine*, posted June 16, 2009 21

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GOVERNMENT DOCUMENTS

PROPOSED RULEMAKING: LIGHT-DUTY VEHICLE GREENHOUSE GAS EMISSIONS STANDARDS AND CORPORATE AVERAGE FUEL ECONOMY STANDARDS

The combined EPA and NHTSA standards that make up this proposed National Program would apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. They require these vehicles to meet an estimated combined average emissions level of 250 grams of carbon dioxide per mile, equivalent to 35.5 miles per gallon (MPG) if the automobile industry were to meet this carbon dioxide level solely through fuel economy improvements. Together, these proposed standards would cut carbon dioxide emissions by an estimated 950 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012-2016). Under this proposed National Program, automobile manufacturers would be able to build a single light-duty national fleet that satisfies all requirements under both the National Program and the standards of California and other states, while ensuring that consumers still have a full range of vehicle choices.



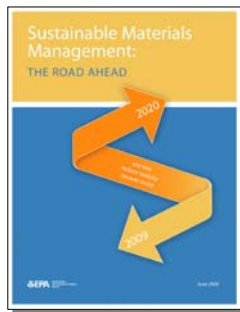
<http://www.epa.gov/otaq/climate/regulations.htm>

CHESAPEAKE BAY COMPLIANCE AND ENFORCEMENT STRATEGY. EPA, September 9, 2009

The Chesapeake Bay is North America's largest and most biologically diverse estuary, home to more than 3,700 species of plants and animals. It is about 200 miles long, contains more than 11,000 miles of tidal shoreline, and is fed by 100,000 creeks, streams and rivers. The watershed spreads over 64,000 square miles and includes parts of six states – Delaware, Maryland, New York, Pennsylvania, Virginia, West Virginia – and all of the District of Columbia. As of 2007, approximately 17 million people lived within the Bay watershed. The Bay provides significant economic and recreational benefits, estimated to exceed \$33 billion annually, to the watershed's population.

The Bay's waters are threatened by pollution from a variety of sources. In order to address non-compliance with federal environmental laws and associated environmental impacts to this watershed, EPA has developed a draft Chesapeake Bay Compliance and Enforcement Strategy.

<http://www.epa.gov/compliance/civil/initiatives/chesapeakebay-strategy-enforcement-090909.pdf>



SUSTAINABLE MATERIALS MANAGEMENT: THE ROAD AHEAD. EPA, June 2009

How our society uses materials is fundamental to many aspects of our economic and environmental future. If we want the US to be competitive in the world economy, the sustainable use of materials must be our goal. *Sustainable Materials Management: The Road Ahead* suggests a roadmap for the future based on materials management—fulfilling human needs and prospering, which using less materials, reducing toxics and recovering more of the materials used.

<http://www.epa.gov/epawaste/inforesources/pubs/vision2.pdf>

FIFTY-YEAR RECORD OF GLACIER REVEALS SHIFTING CLIMATE IN THE PACIFIC NORTHWEST AND ALASKA, USA. U.S. Geological Survey. August 2009.

The report shows that glaciers are dramatically changing in mass, length and thickness as a result of climate change. Over the past 50 years, U.S. Geological Survey (USGS) scientists have monitored the melting of Alaska's Gulkana and Wolverine Glaciers and Washington's South Cascade Glacier, yielding the longest such records in North America.
<http://pubs.usgs.gov/fs/2009/3046/> [HTML format, various paging].

TWENTIETH-CENTURY DECLINE OF LARGE-DIAMETER TREES IN YOSEMITE NATIONAL PARK, CALIFORNIA, USA. U.S. Geological Survey. J.A. Lutz et al. July 29, 2009.

Large trees have declined in Yosemite National Park during the 20th century, and warmer climate conditions may play a role. A decline in large trees means habitat loss and possible reduction in species such as spotted owls, mosses, orchids and fishers, a carnivore related to weasels. Fewer new trees will grow in the landscape because large trees are a seed source for the surrounding landscape. Large-diameter trees generally resist fire more than small-diameter trees, so fewer large trees could also slow forest regeneration after fires.
http://www.werc.usgs.gov/yosemite/pdfs/Lutz_vanWagtendonk_Franklin_Declining_Large_Trees_FEM_2009.pdf [PDF format, 12 pages].

TAKING UP THE SECURITY CHALLENGE OF CLIMATE CHANGE. Strategic Studies Institute, U.S. Department of Defense. Rynn J. Parsons. August 2009.

Climate change, in which man-made global warming is a major factor, will likely have dramatic and long lasting consequences with profound security implications, making it a challenge the United States must urgently take up. The security implications will be most pronounced in places where the effects of climate change are greatest, particularly affecting weak states already especially vulnerable to environmental destabilization. [PDF format, 26 pages].
<http://www.strategicstudiesinstitute.army.mil/pdffiles/PUB932.pdf>

MEMORANDUM OF UNDERSTANDING TO ENHANCE COOPERATION ON CLIMATE CHANGE, ENERGY AND ENVIRONMENT BETWEEN THE GOVERNMENT OF THE UNITED STATES OF AMERICA AND THE GOVERNMENT OF THE PEOPLE'S REPUBLIC OF CHINA. U.S. Department of State. July 28, 2009.

The first round of the U.S.-China Strategic and Economic Dialogue was held in Washington, DC, from 27 to 28 July, 2009. Secretary of State Hillary Rodham Clinton and Secretary of the Treasury Timothy F. Geithner, as special representatives of President Barack Obama, and Vice Premier Wang Qishan and State Councilor Dai Bingguo, as special representatives of Chinese President Hu Jintao, co-chaired the Dialogue, which included Strategic and Economic tracks under this framework. The Dialogue is a reflection of the progress in the U.S.-China relationship over the course of the last thirty years and represents the two sides' shared commitment to build a positive, cooperative and comprehensive relationship for the 21st century. [PDF format, 8 pages].
<http://www.state.gov/documents/organization/126802.pdf>

REQUIREMENTS AND PROCEDURES FOR CONSUMER ASSISTANCE TO RECYCLE AND SAVE PROGRAM. U.S. Department of Transportation. July 2009.

The final rule sets forth requirements and procedures for the voluntary vehicle trade-in and purchase/lease program under the Consumer Assistance to Recycle and Save Act of 2009. The

program helps consumers pay for a new, more fuel efficient car or truck from a participating dealer when they trade in a less fuel efficient car or truck. The rule establishes a process by which dealers can register in order to participate in the program and establishes the criteria this agency will use to determine which disposal facilities are eligible to receive and either crush or shred the trade-in vehicles.

<http://www.gao.gov/decisions/majrule/d09981r.pdf> [PDF format, 136 pages].

CONGRESSIONAL DOCUMENTS (HEARINGS, REPORTS, ETC.)

THE USE OF OFFSETS TO REDUCE GREENHOUSE GASES. Congressional Budget Office. August 3, 2009.

The cost savings to the economy generated by offsets could be substantial, according to the report. Congressional Budget Office (CBO) estimates that between 2012 and 2050 average annual savings from offsets could be about 70 percent under ACESA. The intended environmental benefit would be fully realized only if the offsets provided the full reduction in GHGs for which they were credited. [PDF format, 8 pages].

<http://www.cbo.gov/ftpdocs/104xx/doc10497/08-03-Offsets.pdf>

GREENHOUSE GAS LEGISLATION: SUMMARY AND ANALYSIS OF H.R. 2454 AS PASSED BY THE HOUSE OF REPRESENTATIVES. Congressional Research Service, Library of Congress. Mark Holt and Gene Whitney. July 27, 2009.

Among other items, the bill provides for smart grid technologies, including products that can be equipped with smart grid capability, requirements for electric power retailers to reduce their peak loads using smart grid and other energy efficient technologies, and requirements that power suppliers ensure that utility smart grid systems will be compatible with plug-in electric drive vehicles. [PDF format, 164 pages].

http://assets.opencrs.com/rpts/R40643_20090727.pdf

THE WHITE HOUSE

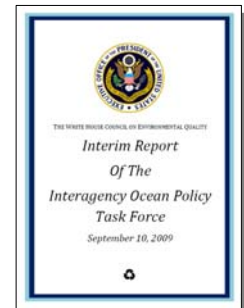
REMARKS BY THE PRESIDENT AT UNITED NATIONS SECRETARY GENERAL BAN KI-MOON'S CLIMATE CHANGE SUMMIT, United Nations Headquarters, New York, New York, September 22, 2009

"No nation, however large or small, wealthy or poor, can escape the impact of climate change. Rising sea levels threaten every coastline. More powerful storms and floods threaten every continent. More frequent droughts and crop failures breed hunger and conflict in places where hunger and conflict already thrive. On shrinking islands, families are already being forced to flee their homes as climate refugees. The security and stability of each nation and all peoples -- our prosperity, our health, and our safety -- are in jeopardy. And the time we have to reverse this tide is running out."

http://www.whitehouse.gov/the_press_office/Remarks-by-the-President-at-UN-Secretary-General-Ban-Ki-moons-Climate-Change-Summit/

INTERIM REPORT OF THE INTERAGENCY OCEAN POLICY TASK FORCE. The White House Council on Environmental Quality, September 10, 2009

WASHINGTON, DC – Obama Administration officials today released the



Interagency Ocean Policy Task Force Interim Report for a 30-day public review and comment period. The Interagency Ocean Policy Task Force, led by White House Council on Environmental Quality Chair Nancy Sutley, consists of 24 senior-level officials from Administration agencies, departments, and offices. The report provides proposals for a comprehensive national approach to uphold our stewardship responsibilities and ensure accountability for our actions.

<http://www.whitehouse.gov/oceans>

THINK TANKS AND INTERNATIONAL ORGANIZATIONS

BROOKINGS INSTITUTION

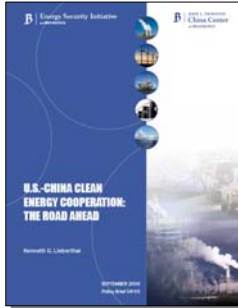


CLIMATE CHANGE POLICY: RECOMMENDATIONS TO REACH CONSENSUS. Brookings Institution, September 2009

As the financial crisis continues to take its toll on the global economy, another serious challenge looms large: preventing the planet from warming more than 3.6 degrees Fahrenheit. Policymakers are now faced with the daunting task of stimulating growth without using carbon-intensive practices and stabilizing the climate without dampening economic recovery. If the financial crisis has shown that the future is unpredictable and that the nations and people of the world are interconnected in ways we do not always perceive, the climate challenge reinforces these lessons and

suggests the need for timely, global coordination.

http://www.brookings.edu/papers/2009/09_climate_change_poverty.aspx



U.S.-CHINA CLEAN ENERGY COOPERATION: THE ROAD AHEAD. Kenneth G. Lieberthal, Brookings Institution, September 2009

Since the Obama administration took office, U.S.-China cooperation on clean energy and climate change has become one of the major issues that is shaping the evolution of U.S.-China relations. This change reflects internal developments in both countries, along with the looming prospect of the Copenhagen Conference in December 2009.

Despite this sea change in the importance of the clean energy and climate change issues, accords on specific cooperative efforts to date have not moved much beyond the U.S.-China Ten Year Framework Agreement on

Energy and Environment signed in June 2008. The remaining months of 2009 – which will witness both a presidential summit in Beijing in November and the UN Copenhagen Conference in December – are critical for translating momentum created in the first nine months of 2009 into concrete progress.

http://www.brookings.edu/papers/2009/09_us_china_energy_cooperation_lieberthal.aspx

CLIMATE CHANGE AND VULNERABLE SOCIETIES: Brookings Institution. Kemal Dervis. July 23, 2009.

Kemal Dervis testifies before the House Committee on Foreign Affairs on America's critical role in supporting climate change adaptation in the world's most vulnerable communities. Dervis recommends enacting globally accepted policies to effectively tackle climate change and protect those most affected. [HTML format, various paging].

http://www.brookings.edu/testimony/2009/0723_climate_change_dervis.aspx

CENTER FOR AMERICAN PROGRESS

REPRODUCTIVE ROULETTE: DECLINING REPRODUCTIVE HEALTH, DANGEROUS CHEMICALS, AND A NEW WAY FORWARD. Center for American Progress. Reece Rushing. July 21, 2009.

Reproductive health in the United States is headed in the wrong direction on a host of indicators, according to the study. Fertility problems, miscarriages, preterm births, and birth defects are all up. These trends are not simply the result of women postponing motherhood. In fact, women under 25 and women between 25 and 34 reported an increasing number of fertility problems over the last several decades. [HTML format, various paging].

http://www.americanprogress.org/issues/2009/07/reproductive_roulette.html

COMMISSION FOR ENVIRONMENTAL COOPERATION

NORTH AMERICAN ENVIRONMENTAL ATLAS. Commission for Environmental Cooperation, September 2009

An atlas that gathers and presents information designed to help us understand continental-scale environmental issues has been released by the Commission for Environmental Cooperation (CEC). The North American Environmental Atlas is intended for use by both environmental scientists and the citizens of the United States, Canada, and Mexico. Its maps and services are designed to help the public visualize environmental topics at a continental scale. An example of this is the pollutant mapping tool in Google Earth that allows you to explore information about more than 30,000 facilities across the United States of America, Mexico, and Canada. For users of geographic information, this Atlas offers basic cartographic and environmental data for the continent at no cost.



<http://www.cec.org/naatlas/index.cfm?varlan=english>

COPENHAGEN CONSENSUS ON CLIMATE

AN ANALYSIS OF CLIMATE ENGINEERING AS A RESPONSE TO CLIMATE CHANGE. Copenhagen Consensus on Climate. J. Eric Bickel and Lee Lane. August 2009.

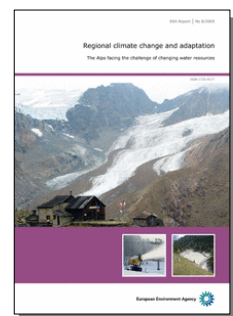
Climate engineering could offer an extremely cheap, fast solution to climate change, according to the authors. They show that we might be able to cancel out this century's global warming by spending no more than \$9 billion, and that climate engineering might be able to achieve as much for the planet as carbon cuts at a fraction of the cost. [PDF format, 58 pages].

http://fixthecclimate.com/uploads/tx_templavoila/AP_Climate_Engineering_Bickel_Lane_v.3.0.pdf

EUROPEAN ENVIRONMENT AGENCY

REGIONAL CLIMATE CHANGE AND ADAPTATION — THE ALPS FACING THE CHALLENGE OF CHANGING WATER RESOURCES. European Environment Agency, 09 Sep 2009

Spanning the centre of continental Europe, the Alps play a crucial role in accumulating and supplying water to the continent. As such, they deliver vital ecosystem services both within and beyond the region, underpinning social and economic wellbeing in vast lowland areas. Troublingly, the alpine



climate has changed significantly during the past century, with temperatures increasing more than twice the global average. Drawing on the most recent knowledge of climate change impacts in the Alps and experiences across the region, this report analyses the risks that climate change presents to the region's water supply and quality, identifying needs, constraints, opportunities, policy levers and options for adaptation. It extracts policy guidance on adaptation practice and aims to assist regional and local stakeholders in developing robust adaptation strategies.

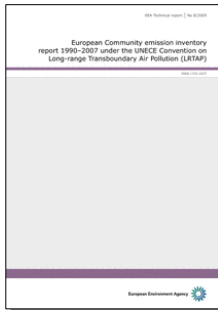
<http://www.eea.europa.eu/publications/alps-climate-change-and-adaptation-2009>



A GLOBAL SETTING FOR EUROPEAN ENVIRONMENTAL MONITORING — MEASURING WHAT WE MUST MANAGE. EEA International conference, 13-15 May 2009. Key conclusions. 01 Sep 2009

The European Environment Agency held a two and a half day senior-level meeting in Copenhagen (13–15 May 2009) on 'A global setting for European environmental monitoring — measuring what we must manage'. The aim was to explore concrete ideas for building a sustainable and focused observing capacity that would best satisfy ongoing European needs, and provide inputs from Global Monitoring for Environment and Security (GMES) and other programmes to the Group on Earth Observations (GEO) and the Global Earth Observation System of Systems (GEOSS).

<http://www.eea.europa.eu/publications/a-global-setting-for-european-environmental-monitoring-84-measuring-what-we-must-manage>

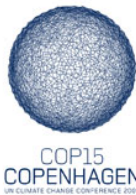


EUROPEAN COMMUNITY EMISSION INVENTORY REPORT 1990-2007 UNDER THE UNECE CONVENTION ON LONG-RANGE TRANSBOUNDARY AIR POLLUTION (LRTAP). EEA, 21 Aug 2009

This report accompanies the annual emission inventory submission of the European Community to the UNECE Convention on Long-Range Transboundary Air Pollution. The report presents an overview of air pollutant emission data reported by the EU-27 Member States between the years 1990 to 2007.

<http://www.eea.europa.eu/publications/lrtap-emission-inventory-report-1990-2007>

EUROPEAN COMMISSION



FINANCING THE FIGHT AGAINST CLIMATE CHANGE; Commission sets out first finance proposals for Copenhagen pact on climate change.

In an effort to end an impasse in international climate talks, the commission has published a plan for financing the fight against global warming in developing countries. It proposes an EU contribution of between €2bn and €15bn a year by 2020. The plan provides a starting point for discussions in the parliament and council to define the EU's position on one of the toughest issues facing the UN climate conference in Copenhagen in December. With just three months to go, international negotiations to prepare for the conference have stalled over the question of how to help developing countries adapt to and limit global warming.

http://ec.europa.eu/news/environment/090910_en.htm

GREENPEACE

ARCTIC COULD BE FREE OF SUMMER SEA ICE BY 2030. Greenpeace, September 17, 2009

Framm Strait, Arctic — As the minimum area of summer Arctic sea-ice extent was today reported to have plummeted to the third-lowest level ever in recorded history, the Greenpeace ship Arctic Sunrise is hosting world-class sea ice expert Dr. Peter Wadhams, on a mission to conduct research into sea-ice loss in the Arctic Ocean, off the northeast coast of Greenland. "We're entering a new epoch of sea ice melt in the Arctic Ocean due to climate change," said Dr. Peter Wadhams. "In five years' time most of the sea-ice could be gone in summer with just an 'Alamo of ice' remaining north of Ellesmere Island. In 20 years' time, that will also be gone, leaving the Arctic Ocean completely ice-free in summer. It's clear we can't rely on current models of prediction for sea-ice melt, as they have been constantly outpaced since the 1980s." <http://www.greenpeace.org/usa/press-center/releases2/arctic-could-be-free-of-summer#>

GULF RESTORATION NETWORK



CLEAN UP YOUR ACT!: A REVIEW OF HOW THE CLEAN WATER ACT IS INCORPORATED INTO GULF STATE WATER REGULATIONS. Gulf Restoration Network. September 4, 2009.

The report grades each of the five Gulf states (FL, AL, MS, LA, TX) on how different important sections of the Clean Water Act are incorporated into state rules. Regrettably each state scored poorly, averaging a D+. The scores ranged from a C- to an F, which shows that all of the Gulf states have not lived up to their obligations under the Clean Water Act. [PDF format, 46 pages].

http://healthygulf.org/images/stories/pdfs/reports/healthy_waters/gulf_states_report_card_2009.pdf

HERITAGE FOUNDATION

WAXMAN-MARKEY'S EFFECT ON GAS PRICES IN YOUR STATE. Nicolas Loris and Ben Lieberman. Heritage Foundation WebMemo #2598. August 28, 2009

The Waxman–Markey energy bill, which would restrict greenhouse gas emissions by creating a cap-and-trade system, was passed by the House in June and will likely be considered by the Senate soon. If this bill becomes law, gasoline prices would increase significantly in order to meet emissions limits imposed by the legislation.

<http://www.heritage.org/Research/EnergyandEnvironment/wm2598.cfm>



THE PERI REPORT ON CLEAN ENERGY: THE WRONG QUESTION AND A MISLEADING RESULT. By Karen A. Campbell, Ph.D. Heritage Foundation Backgrounder #2303. 27 July 2009

The PERI report* does not estimate the economic impact of any policy currently being debated, and the job number finding is not the overall impact to the U.S. economy. The report studies the effect of a hypothetical large investment dropped into clean energy industries versus the effect of the same drop into carbon-based energy industries. The methodology used by the authors is deeply flawed.

<http://www.heritage.org/Research/EnergyandEnvironment/bg2303.cfm>
(*http://www.americanprogress.org/issues/2009/06/pdf/peri_report.pdf)

INTERNATIONAL ASSOCIATION FOR THE STUDY OF INSURANCE ECONOMICS
THE INSURANCE INDUSTRY AND CLIMATE CHANGE – CONTRIBUTION TO THE GLOBAL DEBATE. International Association for the Study of Insurance Economics. July 2009.

The insurance industry is forward-looking by nature, and has a long-term comprehensive approach shared by few other economic factors, says the report. It shows that climate change is about more than just extreme weather events. It analyses what insurance companies are already doing, what they could do in the future and where they need the cooperation of governments and other partners to succeed. [PDF format, 152 pages].
http://www.genevaassociation.org/PDF/Geneva_Reports/Geneva_report%5B2%5D.pdf

NATIONAL PARKS CONSERVATION ASSOCIATION

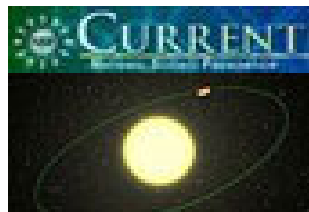
CLIMATE CHANGE & NATIONAL WILDLIFE: A SURVIVAL GUIDE FOR A WARMING WORLD. National Parks Conservation Association. August 2009.

Wildlife and public lands need help surviving the conditions caused by climate change, such as droughts, warmer temperatures, and loss of habitat. The report recommends strategies to help wildlife adapt, including providing land corridors and reducing stress from pollution and invasive species. [PDF format, 60 pages].
http://www.npca.org/climatechange/wildlife_survival/pdfs/00-NPCA-Wildlife.pdf

NATIONAL SCIENCE FOUNDATION

CURRENT. NSF, September 2009

Higher hurricane activity... West Nile virus... top NSF technologies... Einstein fellows... Early Career Awards... new SBE head... Capitol Hill briefings... staff member receives honor
http://www.nsf.gov/news/newsletter/sep_09/index.jsp



CURRENT. NSF, August 2009

Mapping an alien planet... first sunspot computer model... nanoscience center... new supernovae class... Barbara Finlayson Pitts... joint annual meeting... robots invade Senate
http://www.nsf.gov/news/newsletter/aug_09/index.jsp

NATIONAL WILDLIFE FEDERATION

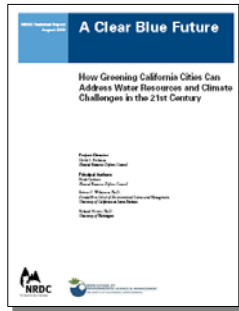


MORE EXTREME WAVES: GLOBAL WARMING'S WAKE UP CALL. National Wildlife Federation. August 2009.

More extremely hot summer days are projected for every part of the country, details the report. "Global warming is bringing more frequent and severe heat waves and the result will be serious for vulnerable populations," said Dr. Amanda Staudt, climate scientist, National Wildlife Federation. "That means air pollution in urban areas could get worse, bringing increased risk of heart attacks, strokes and asthma attacks. Children, the elderly, poor, and people of color are especially vulnerable to these effects."

http://www.nwf.org/nwfwebadmin/binaryVault/8-25-09_NWF_PSR_Heatwaves.pdf

NATURAL RESOURCES DEFENSE COUNCIL

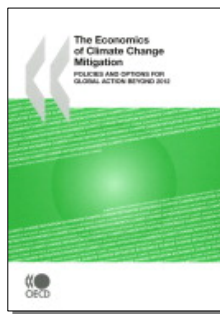


A CLEAR BLUE FUTURE: HOW GREENING CALIFORNIA CITIES CAN ADDRESS WATER RESOURCES AND CLIMATE CHALLENGES IN THE 21ST CENTURY. Natural Resources Defense Council. Noah Garrison et al. August 10, 2009.

The report highlights low impact development, or LID, as a land planning and engineering design approach for storm water management. LID enables cities, states, and individuals to increase access to safe and reliable sources of water while reducing the amount of energy consumed and global warming pollution generated when delivering water to residents.

<http://www.nrdc.org/water/lid/files/lid.pdf> [PDF format, 56 pages]

ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT'S (OECD)



The Economics of Climate Change Mitigation: Policies and Options for Global Action Beyond 2012. OECD, 18-Sep-2009

Against the background of a projected doubling of world greenhouse gas emissions by mid-century, this book explores feasible ways to abate them at least cost. Through quantitative analysis, it addresses key policy issues to support countries in developing and implementing an ambitious, cost-effective, equitable and comprehensive approach to global climate change mitigation.

http://www.oecd.org/document/56/0,3343,en_2649_34361_43705336_1_1_1_37465,00.html



COST-EFFECTIVE ACTIONS TO TACKLE CLIMATE CHANGE. Policy Brief, 08-Sep-2009

Governments around the world are working towards an international agreement on actions to achieve large cuts in greenhouse gas emissions at the Fifteenth Conference of the Parties (COP15) under the UN Framework Convention on Climate Change in Copenhagen at the end of 2009. Considering the costs and risks of inaction, taking action now, even in the midst of a global economic crisis, makes good economic sense. This Policy Brief summarizes the key findings from OECD analyses of the policies and actions urgently required to tackle climate change.

<http://www.oecd.org/dataoecd/1/40/43656443.pdf>

PEW



A COPENHAGEN CLIMATE AGREEMENT. Pew Center on Global Climate Change, September 2009

The upcoming UN Conference on Climate Change in Copenhagen presents an historic opportunity to strengthen the international response to global climate change. The aim in Copenhagen should be agreement on the fundamentals of a new multilateral framework ensuring that all major economies contribute equitably to the global climate effort. This interim agreement should establish the basic legal and institutional architecture of a post-2012 framework within which governments can then negotiate a final agreement containing specific national commitments.

<http://www.pewclimate.org/international/copenhagen-climate-agreement>



REALITIES VS. MISCONCEPTIONS ABOUT THE SCIENCE OF CLIMATE CHANGE. Science FAQ. Pew Center on Global Climate Change, August 2009

The issue of climate change has received so much attention in recent years that it has become difficult for interested citizens and policymakers to separate facts from fiction. Climate change is one of the most cutting edge research fields in modern science, but the field has existed for more than a century and much knowledge has been established with high certainty and confidence. This page clears up some of the most common misconceptions about the science of climate change.

<http://www.pewclimate.org/science-impacts/realities-vs-misconceptions>

NATIONAL SECURITY IMPLICATIONS OF GLOBAL CLIMATE CHANGE. Pew Center on Global Climate Change, August 2009

Experts warn that climate change represents a real threat to American security. A new Pew Center memo looks at these national security implications

<http://www.pewclimate.org/docUploads/national-security-implications-memo-august2009.pdf>



INVESTING IN OUR FUTURE: THE ECONOMIC CASE FOR REBUILDING MID-ATLANTIC FISH POPULATIONS. Pew Environment Group. John M. Gates. July 23, 2009.

The report reveals significant potential financial benefits of rebuilding four fish species in the Mid-Atlantic: summer flounder, black sea bass, butterfish and bluefish. It provides an analysis and estimates direct financial benefits by comparing status quo management of four particular fish species with what would have happened, if those populations had been rebuilt by 2007.

http://www.pewtrusts.org/uploadedFiles/wwwpewtrustsorg/Reports/Protecting_ocean_life/final%20PEG_Rebuilding%20072209.pdf?n=6108 [PDF format, 24 pages].

PLOS ONE

TROPHIC GARNISHES: CAT-RAT INTERACTIONS IN AN URBAN ENVIRONMENT. PLoS One. Gregory E. Glass et al. July 2009.

Synanthropic community members are of increasing practical interest for their effects on biodiversity and public health, says the report. The report characterizes house cat (*Felis catus*) predation on wild Norway rats (*Rattus norvegicus*), and its population effects in an urban area as a model system and its effects on the prevention of transmission of pathogens.

<http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0005794> [HTML format, various paging].

PUBLIC EMPLOYEES FOR ENVIRONMENTAL RESPONSIBILITY

MOVE TO END HARASSMENT OF FLORIDA MANATEES. Public Employees for Environmental Responsibility. July 15, 2009.

The endangered Florida manatee is being illegally besieged by hordes of tourists who are allowed to swim with the animal, according to a formal petition for rulemaking filed today by Public Employees for Environmental Responsibility (PEER) with the U.S. Fish & Wildlife Service (FWS) which issues permits sanctioning the practice. PEER is demanding that the federal

agency stop giving out commercial swim-with permits, adopt rules that forbid swimming with the manatees and safeguard key manatee breeding and resting areas.

http://www.peer.org/news/news_id.php?row_id=1217

http://www.peer.org/docs/fws/09_15_7_Swim_With_Petition.pdf

RAND

IMPROVING THE ENERGY PERFORMANCE OF BUILDINGS: LEARNING FROM THE EUROPEAN UNION AND AUSTRALIA. Charles P. Ries, Joseph Jenkins, Oliver Wise
RAND, September 21, 2009

The United States can become more energy efficient and create more "green" jobs by adopting some of the strategies used by the European Union and Australia to rate and disclose the performance of commercial and government-owned buildings, according to a new RAND Corporation study issued today. The study finds that wealthier countries use more than a third of their energy to heat, cool and illuminate buildings, but not always efficiently. Recent steps taken by the European Union and Australia to inspect, rate and publicly disclose the energy efficiency of buildings indicate the buildings use less energy and are worth more when sold or leased.

http://www.rand.org/pubs/technical_reports/TR728/

REN21

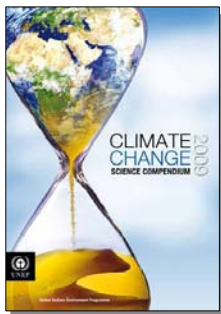


RENEWABLES GLOBAL STATUS REPORT, 2009. Ren21, August 25, 2009

The Update tracks renewable energy investment, deployment, and policy developments, among other useful data. It has been published by REN21 - Renewable Energy Networks for the 21st Century a partner of ICLEI. The report provides a useful overview on city and local government activities on renewable energy. Found on page 20, this municipal update indicates that hundreds of cities worldwide are actively pursuing renewable energy policies as part of their climate strategies.

http://www.ren21.net/pdf/RE_GSR_2009_Update.pdf

UNITED NATIONS ENVIRONMENT PROGRAMME (UNEP)



CLIMATE CHANGE SCIENCE COMPENDIUM 2009. UNEP, September 2009

Impacts of Climate Change Coming Faster and Sooner; this New Science Report Underlines Urgency for Governments to Seal the Deal in Copenhagen. The pace and scale of climate change may now be outstripping even the most sobering predictions of the last report of the Intergovernmental Panel of Climate Change (IPCC). An analysis of the very latest, peer-reviewed science indicates that many predictions at the upper end of the IPCC's forecasts are becoming ever more likely. Meanwhile, the newly emerging science points to some events thought likely to occur in longer-term time horizons, as already

happening or set to happen far sooner than had previously been thought.

Press Release:

<http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=596&ArticleID=6326&l=en>

Report: <http://www.unep.org/compendium2009/>



GLOBAL GREEN NEW DEAL; AN UPDATE FOR THE G20 PITTSBURGH SUMMIT. UNEP, September 2009

A Global Green New Deal update by the UN Environment Programme (UNEP), launched as G20 nations meet in Pittsburgh, Pennsylvania, shows that over a third of China's recovery spending is being focused on areas ranging from railways and water infrastructure to energy efficiency and renewables like wind and solar. The Republic of Korea is going even further in terms of setting the stage towards a transition to a low carbon, resource efficient Green Economy. Close to 80 per cent of its stimulus package or around \$31 billion is aimed at promoting energy efficient buildings and water and waste management-but also investments in areas such as renewable energy, low emission vehicles and railways. Other countries that have in part seized the economic crisis as an opportunity for a different development path include Australia, the United States, Japan, Germany, South Africa and France. Yet UNEP and economists are warning that major pitfalls remain in terms of the overall size of the green component of the global stimulus package. This currently falls short of the \$750 billion or one per cent of global GDP that is recommended for reducing carbon dependency and seeding the process of transition. In addition there are log-jams in many countries in terms of the speed at which funds are being spent and red-tape surrounding access to green new deal money which is hindering the pace of transformational change.

http://www.unep.org/pdf/G20_policy_brief_Final.pdf

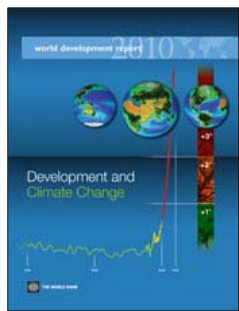
UNIVERSITY OF CALIFORNIA, BERKELEY

WORKSHOP REPORT: CLIMATE CHANGE MITIGATION: CONSIDERING LIFESTYLE OPTIONS IN EUROPE AND THE U.S. Institute of European Studies, University of California, Berkeley. Falk Schuetzenmeister. August 2009.

The report summarizes the presentations and outcomes of a European-American Workshop about lifestyle changes as a mitigation strategies for global warming. The conference was held on May 1, 2009 at the University of California, Berkeley and sponsored by the European Commission. The participants discussed various lifestyle approaches as a promising way to address environmental behavior and action within social and cultural contexts. The presenters and discussants acknowledged the theoretical and practical difficulties of this multi-faceted concept which relies on several sometimes virtually incommensurable traditions.

<http://repositories.cdlib.org/cgi/viewcontent.cgi?article=1093&context=ies> [PDF format, 12 pages].

WORLD BANK

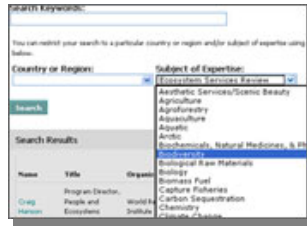


WORLD DEVELOPMENT REPORT 2010: DEVELOPMENT AND CLIMATE CHANGE. World Bank, September 15, 2010 (Advance Press Edition, still subject to final changes; final Report due out in late October)

Developing countries can shift to lower-carbon paths while promoting development and reducing poverty, but this depends on financial and technical assistance from high-income countries, says *World Development Report 2010: Development and Climate Change*. High-income countries also need to act quickly to reduce their carbon footprints and boost development of alternative energy sources to help tackle climate change. If they act now, a 'climate-smart' world is feasible, and the costs for getting there will be high but still manageable. More from the press release...

<http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTRESEARCH/EXTWDRS/EXTWDR2010/0,,menuPK:5287748~pagePK:64167702~piPK:64167676~theSitePK:5287741,00.html>

WORLD RESOURCES INSTITUTE



ONLINE RESOURCE PUTS ECOSYSTEM SERVICES EXPERTS AT FINGERTIPS, 15 September 2009

Washington, 15 September 2009 - The World Resources Institute (WRI) and other leading international environmental organizations today launched the Ecosystem Services Experts Directory, a public online directory that allows journalists, business and governments to locate and contact specialists in ecosystem services.

<http://www.wbcsd.org/Plugins/DocSearch/details.asp?DocTypeId=251&ObjectId=MzU2MzI>

MOVING FORWARD ON CLIMATE ADAPTATION IN SOUTH AFRICA. World Resources Institute. Erik Chu and Preeti Verma. September 4, 2009.

The authors claim that to be successful, adaptation efforts must dovetail with human development needs such as poverty reduction and employment.

<http://www.wri.org/stories/2009/09/moving-forward-climate-adaptation-south-africa>

CLIMATE CHANGE LEGISLATION: MYTHS AND REALITY. World Resources Institute. Jessica Forbes and Polly Ghazi. August 25, 2009.

The study shows quick "reality checks" on common misconceptions about climate change legislation in the United States.

<http://www.wri.org/stories/2009/08/climate-change-legislation-myths-and-reality>

WORLDWATCH INSTITUTE

GERMANY BOOSTS ELECTRIC VEHICLE DEVELOPMENT. World Watch Institute. Ben Block. September 4, 2009.

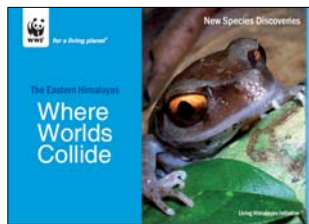
As the country considers low-carbon transportation options, a debate is brewing in the German government about how electric vehicles can best lower emissions.

<http://www.worldwatch.org/node/6251> [HTML format, various paging].

WATER SCARCITY LOOMS. Worldwatch Institute. Gary Gardner. August 6, 2009.

Water scarcity is increasing in many regions as factors including population growth, climate change, and pollution restrict the amount of water available relative to demand. In 2008, 1.4 billion people lived in "closed basins"-regions where existing water cannot meet the agricultural, municipal, and environmental needs for all. This number is expected to grow to 1.8 billion by 2025. <http://www.worldwatch.org/node/6213>

WORLD WILDLIFE FEDERATION



THE EASTERN HIMALAYAS: WHERE WORLDS COLLIDE. World Wildlife Fund. August 2009.

Over 350 new species including the world's smallest deer, a "flying frog" and a 100 million-year old gecko have been discovered in the Eastern Himalayas, a biological treasure trove now threatened by climate change, according to the report. [PDF format, 33 pages].

http://assets.panda.org/downloads/new_species_discoveries__eastern_himalayas__where_worlds_collide.pdf

ARTICLES FROM U.S. JOURNALS

FACTORING PEOPLE INTO CLIMATE CHANGE. Crossette, Barbara. *The Nation*, September 14, 2009

When the climate-change summit of world leaders convenes on September 22, it is very likely that the subject of women will not come up, notes the author. Although many governments pay lip service to population growth, few make the link between population and the environment. The subject of family planning is also taboo in many circles; one participant country in the climate talks has already sounded a warning to keep population off the table. The U.N. and many global NGOs and activists agree on the necessity to accept that population and climate change need to be part of an integrated policy, although making inroads into political thinking is a slow process. The author notes that U.S. officials can go to the talks, knowing that American public opinion overwhelmingly supports family planning programs worldwide, despite the attempts of some American politicians to polarize the issue. Available online at <http://www.thenation.com/doc/20090928/crossette>

WIND POWER'S WEIRD EFFECT. Fahey, Jonathan. *Forbes*, September 7, 2009

Summary: The news about wind power is mixed, notes the author. The good news is that, thanks to cheap wind energy, in some parts of the country when there is too much power on the grid, wholesale power prices are now dropping to zero or below at certain times of the day. The bad news is that wind turbines spin the most at night when demand is low and least during afternoons when power is needed. Some power plants are hard pressed to power down when wind power is at its highest. In the long run, the wind power boom could push daytime prices higher. To balance out fickle wind turbines, utilities will need electricity during peak times from gas-fired plants; that intermittent power will be expensive. <http://www.forbes.com/forbes/2009/0907/outfront-energy-exelon-wind-powers-weird-effect.html>

THE BIG HEAT. Powell, Corey. *Discover*, June 2009, pp. 38-43

Summary: Global warming is at once the most alarming challenge and the most controversial. Despite the potential for catastrophic environmental outcomes, a large segment of the U.S. public still doubts that climate change will cause major harm, or that it is occurring at all. Discover Magazine editor-in-chief Powell moderates a discussion between four prominent climate scientists, who discuss the evidence that climate change is occurring. For them, the number of different events that are all happening simultaneously would be very hard to explain if not for global warming -- such as the loss of ice mass in both polar regions, the increasing acidification of the oceans, and the potential for widespread crop failures in many equatorial regions where crops are already being raised at temperatures close to their photosynthetic limits. They fear that it may be too late to make the needed changes if humanity waits until there is international cooperation; what is needed is leadership by the U.S. and Europe, and other nations will follow. Currently available online at <http://discovermagazine.com/2009/jun/30-state-of-the-climate-and-science>

FOREST PRIMEVAL. Gugliotta, Guy. *Smithsonian*, vol. 40, no. 4, July 2009, pp. 14-16

Summary: Two abandoned coal mines in eastern Illinois contain the largest fossil forest ever discovered -- over four square miles of tropical wilderness preserved intact over 300 million years ago. This accident of nature occurred when an earthquake suddenly lowered the swamp, and sand and mud rushed in, covering everything. This site is so valuable to science because it provides a snapshot of life on Earth just prior to a period of great change, and most of the

species found in the Riola and Vermilion Grove mines would later vanish. Researchers believe that the carbon-dioxide content of the atmosphere had suddenly grown; studying the relationship between this primordial atmospheric change and changes in vegetation may offer clues on how today's ecosystem could respond to increases in carbon-dioxide levels caused by the burning of fossil fuels. Currently available online at
<http://www.smithsonianmag.com/history-archaeology/Phenomena-Forest-Primeval.html>

IS THERE A PLACE FOR NUCLEAR WASTE? Wald, Matthew L. *Scientific American*, August 2009

Summary: Yucca Mountain was supposed to be the answer to the U.S. nuclear waste problem, but after 22 years and \$9 billion, that vision is dead. Now, some say that doing nothing in the near term may be the smartest solution. The Obama administration has effectively canceled the plan to store nuclear waste at Yucca Mountain in Nevada. Spent fuel will for the foreseeable future continue to be stored on-site at 131 locations around the country. The end of Yucca means that all options for waste disposal are now in play, including recycling, use in advanced reactors and burial at other sites. Currently available online at
<http://www.scientificamerican.com/article.cfm?id=is-there-a-place-for-nuclear-waste>

FEELING THE STING. Tangley, Laura. *National Wildlife*, vol. 47, no. 5, August-September 2009

Summary: Scientists speculate that the huge jellyfish swarms that have been appearing worldwide may not be a normal, periodic jellyfish bloom, but something more. A 2008 National Science Foundation report says the massive jellyfish blooms reported in the Black Sea, the Gulf of Mexico, the Mediterranean Sea, and elsewhere, could be increasing "because of human activities." Scientists cite overfishing and pollution as primary culprits. The blooms, which have had negative impacts on beach tourism, could signal a marine ecosystem severely out of balance. Currently available online at
<http://www.nwf.org/NationalWildlife/article.cfm?issueID=130&articleID=1758>

HABITAT SAVED. Di Silvestro, Roger. *National Wildlife* vol. 47, no. 5, August-September 2009

Summary: The author describes how a non-governmental organization and the publisher of this magazine, the National Wildlife Federation, has successfully challenged environmentally destructive government policies in court. One decision limiting the availability of federally-issued flood-plain insurance, that encourages development of habitat uninsurable by private companies, will help preserve endangered Key deer in Florida, killer whales in Washington State's Puget Sound, and black bears and cypress forests in Mississippi's Yazoo River Basin. Global warming, the author says, makes such areas more vulnerable to flooding, and "business as usual in floodplains is changing." Currently available online at
<http://www.nwf.org/NationalWildlife/article.cfm?issueID=130&articleID=1757>

THE MONSTER FOOTPRINT OF DIGITAL TECHNOLOGY. De Kecker, Kris. *Low-Tech Magazine*, posted June 16, 2009

Summary: The author notes that, for most of the modern industrial era, durable equipment such as cars, refrigerators or washing machines consumed more energy over their lifetime of use and operation than during their manufacture. The advent of computer technology has turned this situation upside down -- vastly more energy is required in the manufacture of computers and other electronic gadgets than they consume. Most of that embodied energy is

in the microprocessors, which can be six orders of magnitude greater than for conventional manufacturing processes, and the energy required during manufacture keeps growing, as bigger and more powerful computer chips are needed for graphics and video games. This is exacerbated by the fact that high technology is evolving quickly, and equipment becomes obsolete after only a few years. Recycling is not the complete answer, notes the author; addressing technological obsolescence would be the best approach to lowering the ecological footprint of digital technology. Available online at <http://www.lowtechmagazine.com/2009/06/embodied-energy-of-digital-technology.html>

CATCHING A WAVE. Rusch, Elizabeth. Smithsonian, July 2009, pp. 66-71

Summary: In this article, Rusch profiles electrical engineer Annette von Jouanne, head of the Wallace Energy Systems and Renewables Facility at Oregon State University, and one of the driving forces in the development of wave energy. By some projections, tapping the energy of the tides could meet 6.5 percent of U.S. electric power needs. Many researchers over the years have attempted to build devices to transform the energy of waves into electricity, but von Jouanne advocates simplicity in design to achieve the most dependable energy flow. Her current design now being tested is shaped like a flying saucer with a generating coil and a sliding magnet assembly capable of generating a few kilowatts of electricity in a gentle wave. Building the device is only one design problem; a means to keep it anchored and consistently functioning in the tides is also challenging. The Oregon State researchers also need to avoid creating a device that could damage the seaside ecosystem. Currently available online at <http://www.smithsonianmag.com/science-nature/Catching-a-Wave.html#>

More about environmental issues:
<http://www.america.gov/global/environ.html>
