Union of Concerned Scientists
Citizens and Scientists for Environmental Solutions

A Climate of Change: The UCS Guide for the 111th Congress

The 111th Congress has a unique opportunity to make transformative changes to improve our global security and environmental health, establish a robust clean energy economy, and ensure that independent science informs federal policy decisions**.**

Using the practical, scientifically-based analysis UCS has been known for since 1969, we, and our 250,000 members nationwide, are pleased to present you with policy recommendations across our core issues. In this document, you will find these recommendations, more in-depth background information, and contact information for our policy experts on a variety of issue areas.

Contents

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Union of Concerned Scientists
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Clean Energy Program

We aim to enact federal policies that support renewable energy, reduce barriers to the adoption of renewable technologies, and encourage all energy purchasers to use renewables.

LEGISLATIVE PRIORITIES

The Renewable Electricity Standard

Renewable energy can help solve multiple problems: increasing and volatile fossil fuel prices, energy supply shortages and disruptions, a growing dependence on natural gas, a need for more domestic energy supplies, and harmful air pollution. A national renewable electricity standard (RES) for electricity, also called a Renewable Portfolio Standard (RPS), can create a market for renewable energy. Renewable electricity standards have passed the House twice and the Senate three times with bipartisan support. As of January, 2009, 28 states and the District of Columbia have enforceable renewable electricity standards. Several of these states have expanded their standards because they have found that increasing the use of renewable energy saves consumers money, creates jobs and bolsters rural economies.

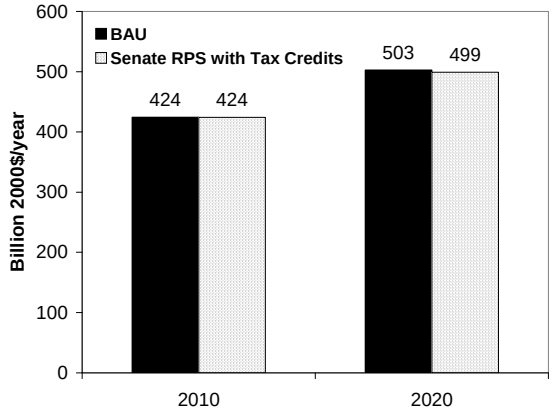
What is a Renewable Electricity Standard?

The RES is a market-based mechanism that requires utilities to gradually increase the portion of electricity produced from renewable resources such as wind, biomass, geothermal, and solar energy. Creating a federal standard will develop the national market for renewables and reduce the price.

The RES Relies on Market Forces

By using nationwide tradable "renewable energy credits," the RES would work much like the Clean Air Act credit-trading system to create competition among renewable generators, providing the greatest amount of clean power for the lowest price and an ongoing incentive to drive down costs.

Total Consumer Energy Bills, United States[a]



[a]Excludes Transportation.

Benefits of the Renewable Electricity Standard

Keeps consumer energy bills low

Developing America's homegrown renewable energy resources can help diversify our energy resources and shield consumers from the price volatility that can plague fossil fuel-fired power plants.

A report done by the five national energy labs for the Department of Energy in November of 2000 found that renewables could supply at least 7.5 percent of US electricity by 2010. When combined with energy efficiency improvements, energy costs to consumers would decline.[1]

A July 2007 UCS analysis found that a 20% national RES by 2020 would save consumers $31.8 billion on their energy bills through 2030.[2,3]

Reduce dependence on fossil fuels and lower fossil fuel prices

Studies by UCS, the Department of Energy, and others show that a national standard can create healthy competition for fossil fuel power plants, which are increasingly fueled by natural gas. By reducing the heavy demand for natural gas, the RES will reduce natural gas prices to homes and businesses.

"The benefit of wind and solar energy is a predictable price path…your variable costs will be zero."

Pat Wood
former Chair of the Texas Public Utilities Commission, which implemented the nation's most successful RPS to date, and former Chair of the Federal Energy Regulatory Commission

Foster economic development

This RES will stimulate domestic investment in new renewable energy throughout the nation, creating jobs and income in rural areas as well as in the high tech and manufacturing sectors. For example, UCS estimates that a 20 % RES would generate over $66.7 billion in capital investment and create 185,000 jobs. Wind energy alone could provide $1.2 billion in new income for farmers and rural landowners by 2020 and 80,000 new jobs, according to the US Department of Energy. Tripling US use of biomass energy could provide as much as $20 billion in new income for farmers and rural communities. With a strong domestic renewable energy industry, the US economy would benefit from the large export potential of this industry.

Reduce emissions and environmental impacts

Adopting a strong national renewable electricity standard can reduce US carbon dioxide emissions—the primary greenhouse gas—from electricity generation. Electricity generation is the leading source of US carbon emissions, accounting for over 40 percent of the total. An RPS will also significantly reduce emissions of nitrogen oxides, sulfur dioxide, and mercury, which are linked to acid rain, smog, respiratory illness, and water contamination. A July 2007 study by the Union of Concerned Scientists found that a 20 percent RES standard would reduce power plant CO2 emissions by xxx million metric tons (MMT) – the equivalent of taking 36.4 million cars off the road

An RES would reduce the need to drill for natural gas, build new pipelines and power lines, and reduce the need to mine, transport and burn coal. Energy efficiency and renewable energy can be increased faster than developing new fossil and nuclear energy supplies.

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[1] Interlaboratory Working Group, *Scenarios for a Clean Energy Future* (Oak Ridge, TN; Oak Ridge National Laboratory and Berkeley, CA; Lawrence Berkeley National Laboratory), ORNL/CON-476 and LBNL-44029, November 2000. http://www.ornl.gov/ORNL/Energy_Eff/CEF.htm

[2] Net present value result in 2000 dollars using an 8% real discount rate.

[3] Union of Concerned Scientists, *Renewing Where We Live Update: The Senate's National Renewable Energy Standard Will Benefit America's Economy*, Union of Concerned Scientists, Cambridge, Mass. August 2002

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Clean Vehicles Program

The UCS Clean Vehicles Program is working towards a cleaner, more fuel-efficient transportation system by improving the fuel economy and greenhouse gas performance of cars and trucks, supporting sustainable low-carbon fuels, and reducing emissions from diesel engines. The Clean Vehicles Program is also working at the state level to promote strong vehicle and fuel standards.

Our goal is to reduce global warming pollution from transportation

In order to meet the critical climate goal of at least an 80% reduction in greenhouse gases by 2050, significant reductions will be required from the transportation sector. Transportation in the US is responsible for nearly 40% of our global warming pollution, and requires special consideration to produce the most cost-efficient reductions. Any comprehensive federal system to reduce global warming pollution must incorporate the transportation sector under an economy-wide cap. New technologies and sector-specific standards will also be needed, so research and development for low carbon vehicle and fuel technologies should be increased and standards should be implemented.

National Priorities -

Aggressive implementation of recently-enacted fuel economy standards and establishment of national greenhouse gas standards for vehicles -- Americans are sending more than a billion dollars a day overseas to import oil. Burning oil in our transportation sector alone is emitting more global warming emissions than most other countries. Only by aggressively implementing Congress' groundbreaking fuel economy provisions and establishing greenhouse gas standards for vehicles under the Clean Air Act can we guarantee that the potential consumer, energy security and pollution reduction benefits of improved vehicle fuel economy and reduced emissions will become a reality. This has the added benefit of helping to revitalize the auto industry by creating jobs and stimulating production of vehicles that will be more competitive in the marketplace.

Support the growth of a sustainable, low carbon fuels industry -- Efficiency can only get us part of the way to oil independence and significant global warming pollution reductions, we will still need alternative fuels like sustainable biofuels, hydrogen, or electricity to replace oil in the long term. As we develop new fuel sources, we must ensure that they reduce carbon emissions over their complete life cycle—i.e. production, transportation, and use—and that the fuels are sustainably produced. The first step at the federal level is to ensure accurate global warming accounting in the recently enacted Renewable Fuel Standard, followed by a low carbon fuel standard that covers all transportation fuels.

Preserve state authority to protect their citizens from automobile pollution – Historically, states have protected their citizens from automobile emissions by establishing stricter emissions standards. Despite the established right of California to set stricter standards, and other states to follow them, the Bush administration, for the first time in the history of the Clean Air Act, denied the waiver required for states to implement their standards. This illegal decision must be overturned and any action to reduce automobile emissions nationally must not undermine states' ability to protect their citizens.

- more -

Create green jobs by investing in an efficient transportation sector – Numerous opportunities exist in the transportation sector to create or maintain jobs while improving environmental performance. These range from the construction of transit, rail, and other clean transportation systems to the development of advanced vehicle technologies. Specifically in the auto sector, retooling auto plants to make more fuel efficient vehicles creates jobs, and is essential to rebuilding a domestic auto industry that can be competitive.

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PUBLICATIONS

- ***Setting the Standard***
  - http://www.ucsusa.org/clean_vehicles/solutions/cleaner_cars_pickups_and_suvs/setting-the-standard.html
  - fleet average fuel economy standards nearing 40 mpg by 2020 are cost effective, even without hybrid technology.
- ***Getting There Greener***
  - http://www.ucsusa.org/clean_vehicles/solutions/cleaner_cars_pickups_and_suvs/greentravel/getting-there-greener.html
  - the first comprehensive analysis—peer-reviewed by experts—of the highest-carbon and lowest-carbon options for vacation travel.
- ***Smart Bioenergy***
  - http://www.ucsusa.org/clean_energy/technology_and_impacts/energy_technologies/smartbioenergy.html
  - a series of fact sheets on biofuels including land use change, the Renewable Fuel Standard, and food versus fuels.
- ***Delivering the Green***
  - http://www.ucsusa.org/clean_vehicles/solutions/cleaner_diesel/delivering-the-green.html
  - Reducing Trucks' Climate Impacts While Saving at the Pump

WEBSITE
http://www.ucsusa.org/clean_vehicles/
http://www.hybridcenter.org

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Climate Change Program

UCS is working to protect the health and economic well-being of current and future generations by advancing legislation to reduce global warming pollution and promote the use of technology and practical solutions already at our disposal.

LEGISLATIVE PRIORITIES

Create a Well-Designed Cap-and-Trade Program to Fight Global Warming – The U.S. should enact a cap-and-trade program that would set a tight limit on global warming emissions and charge a price for the release of heat trapping emissions. Auctioning the pollution permits will raise money for investments in efficiency and clean energy solutions, protection of consumers, workers and communities and help for vulnerable people and natural resources to adapt to the unavoidable consequences of climate change. A carbon price will also drive private investments in clean energy and create millions of new jobs.

Establish Strong Emissions Reduction Targets – A recent UCS report, *Avoiding Dangerous Climate Change*, shows that, to have a 50/50 chance of preventing additional irreversible consequences of climate change, the United States must cut its heat-trapping emissions on the order of 20 percent below today's levels by 2020 and *at least* 80 percent by 2050, even when assuming aggressive action by developing countries and other industrialized nations. UCS calls on Congress to pass legislation that ensures these levels of pollution cuts.

Ensure Climate Legislation Responds to Emerging Science – Federal legislation must ensure that the administration and Congress react rapidly if scientific reviews by the National Academy of Sciences show the U.S. must do more to help avert the worst effects of climate change. Establishing such a rapid response mechanism is critical to effectively achieving the goals of science-based emissions reduction targets.

Promote Clean Technology Solutions – We need to build a clean energy future that will break our dependence on oil, create millions of new jobs, and cut global warming pollution. UCS urges the new administration and Congress to work together to produce a comprehensive plan that, in addition to creating strong cap-and-trade legislation, will:

- **Move us to 100 percent clean electricity** – Generate power from clean sources such as wind and solar and reduce electricity demand with energy efficient buildings and homes.
- **Cut our dependence on oil in half** – Improve vehicle efficiency; use electricity instead of oil to power our cars; and invest in public transportation.
- **Create 5 million new clean energy jobs** – Invest in clean energy technologies and infrastructure that will require new engineers as well as factory, construction, and administrative workers.

Restore a National Assessment of Global Change Impacts – Since the publication of the U.S. National Assessment in 2001, the federal government has not systematically provided updated information on the risk of climate change and its effects in the U.S. UCS has stepped in to help fill the gap by publishing a series of reports on the consequences of global warming on regions of the country. It is time for the federal government to meet the need for similar information across the nation. We need legislation that will require the federal government to conduct an ongoing assessment of the effects of global warming in the U.S., possible mitigation options, and opportunities to adapt to changes that are now unavoidable.

Re-Engage in International Climate Negotiations – Given that the United States is the world's top emitter, the U.S. must also be a leader in reducing its own emissions and participate productively in international negotiations aimed at producing agreement on a comprehensive new post-2012 climate treaty regime. The U.S. must also help to provide developing nations with the technological assistance and funding that will be needed for those countries to do their part.

PUBLICATIONS & MATERIALS

- ***State/Regional Climate Impacts and Solutions Assessment Reports***
  States: Pennsylvania (new!), California
  - Full reports and six-page summaries at: www.climatechoices.org

  Regional: Northeast and Great Lakes Regions
  - Northeast Region: Report, summary, and state fact sheets (CT, ME, MA, NH, NJ, NY, PA, RI, VT). Available at: www.climatechoices.org
  - Great Lakes Region: Report, summary, and state fact sheets (IL, IN, MI, MN, NY, OH, PA, WI). Available at: http://www.ucsusa.org/greatlakes/

- ***Scientists and Economists' Call to Action***
  More than 1,700 leading U.S.-based scientists and economists call on our nation's leaders to swiftly establish and implement policies to bring about deep reductions in U.S. heat-trapping emissions. Signers and institutions listed by state. Available at: www.ucsusa.org/climateletter

- ***Avoiding Dangerous Climate Change: A Target for U.S. Emissions Reductions***
  Science-based analysis explaining why the U.S. must reduce emissions *at least* 80% below 2000 levels by 2050 to avoid the worst effects of global warming. Report, fact sheet and appendix with graphics comparing U.S. emissions reductions under current climate proposals available at: www.ucsusa.org/emissionstarget

- ***Sound Climate Legislation Must Respond to Emerging Science***
  Fact sheet on the need for ensuring that any U.S. climate policy establishes a rapid response mechanism to the latest climate science. Available at: www.ucsusa.org/rapidresponse

- ***Findings of the IPCC Fourth Assessment Report: Science, Impacts, and Mitigation***
  Three UCS fact sheets, summarizing key findings for each of the reports in the latest assessment from the Nobel Prize-winning panel of the world's leading scientists on climate change science, impacts, and mitigation options.
  Available at: www.ucsusa.org/global_warming/science/the-ipcc.html

- ***Cap and Trade Backgrounder***
  Backgrounder on key elements of a well-designed cap-and-trade program to fight global warming. Available at: www.ucsusa.org/global_warming/solutions/cap-and-trade.html

WEBSITE

http://www.ucsusa.org/global_warming/

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Sustainable agriculture practices can protect the environment and produce high-quality, safe, and affordable food. Our goal is to promote such practices while eliminating harmful agricultural methods that undermine the foundations of our food supply, such as healthy air, water, and soil. We also work to strengthen government oversight of genetically engineered food.

LEGISLATIVE PRIORITIES

Pass legislation to address overuse of antibiotics in animal agriculture – Livestock producers use an estimated 70% of all antibiotics and related drugs produced in the United States for nontherapeutic purposes such as accelerating animal growth and routine disease prevention. Mounting scientific evidence shows that this routine feeding of antibiotics to farm animals that are not sick promotes development of antibiotic-resistant bacteria that can be transferred to people, making it harder to treat bacterial infections in humans. *Methicillin-resistant staphylococcus aureus* (MRSA) infections, for example, are a significant public health threat; what many people do not know is that in Europe MRSA has been traced to pigs and may be present in U.S. livestock.

The Preservation of Antibiotics for Medical Treatment Act would amend the Federal Food Drug and Cosmetic Act to withdraw approvals for feed-additive use of seven specific classes of antibiotics which are important in human medicine: penicillins, tetracyclines, macrolides, lincosamides, streptogramins, aminoglycosides, and sulfonamides.

More information is available at:
www.ucsusa.org/food_and_agriculture/solutions/wise_antibiotics/

Provide funding for research on antibiotic use and antibiotic resistant diseases- The 2007 Farm Bill created a new USDA competitive research program called *Research and Education Grants for the Study of Antibiotic-Resistant Bacteria*. This important research program would provide much needed information for livestock producers on how to minimize the use of antibiotics while ensuring healthy animals and people. Funding is needed to implement this important research initiative. Funding is also needed to assist the USDA in collecting data about levels of antibiotic resistant diseases, such as Methicillin-resistant Staphylococcus aureus (MRSA) in livestock.

Promote implementation of sustainable and organic programs in the Food and Farm Bill – We support strong and quick implementation of Food and Farm Bill programs that encourage sustainable and organic agriculture, including research, conservation, organic conversion assistance, and public plant and animal breeding. We believe the 2008 Food and Farm Bill made progress in strengthening specific sustainable agriculture programs that support modern farming practices that protect the foundations of our food supply, like healthy soil and a fresh water supply. UCS will be looking to Congress to help oversee implementation of these key programs and ensure sufficient funding is provided.

More information is available at www.ucsusa.org/food_and_environment/sustainable_food.

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PUBLICATIONS

- ***CAFOs Uncovered: The Untold Costs of Confined Animal Feeding Operations***
  http://ucsusa.org/food_and_agriculture/science_and_impacts/impacts_industrial_agriculture/cafos-uncovered.html
  - When it comes to most of the meat, dairy, and eggs produced in the United States, there's truly no such thing as a free lunch. In this new report, UCS exposes the billions of dollars in environmental, health, and economic costs imposed on society by Confined Animal Feeding Operations (CAFOs).
- ***Hogging It: Estimates of Antimicrobial Abuse in Livestock***
  www.ucsusa.org/food_and_environment/antibiotics_and_food/hogging-it-estimates-of-antimicrobial-abuse-in-livestock.html
  - The use of antimicrobials in animal agriculture is eroding physicians' ability to treat infectious disease in humans. This report provides the first estimate based on a transparent methodology of the amount of antimicrobials given to animals for nontherapeutic purposes, such as promoting growth. The amount is enormous, dwarfing the quantity of antimicrobials in human medicine.
- ***Greener Pastures: How Grass-Fed Beef and Milk Contribute to Healthy Eating***
  www.ucsusa.org/food_and_environment/sustainable_food/greener-pastures.html
  - The first comprehensive study that confirms that beef and milk from animals raised entirely on pasture have higher levels than conventionally raised beef and dairy cattle of beneficial fats that may prevent heart disease and strengthen the immune system. The study also shows that grass-fed meat is often leaner than most supermarket beef, and raising cattle on grass can reduce water pollution and the risk of antibiotic-resistant diseases.
- ***The Economics of Pharmaceutical Crops: Potential Benefits and Risks for Farmers and Rural Communities***
  www.ucsusa.org/food_and_environment/genetic_engineering/economics-of-pharmaceutical-crops.html
  - This report is the first analysis by a land-grant university economist of potential economic benefits and risks of pharmaceutical crops to farmers and rural America. UCS scientists conclude that proponents of pharmaceutical crops have inflated the rewards and downplayed the risks.
- ***A Growing Concern: Protecting the Food Supply in an Era of Pharmaceutical and Industrial Crops***
  www.ucsusa.org/food_and_environment/genetic_engineering/pharmaceutical-and-industrial-crops-a-growing-concern.html
  - This report presents the findings of a 2003 expert workshop on protecting the U.S. food supply from contamination by crops engineered to produce pharmaceuticals and industrial chemicals. The report includes an executive summary of UCS's conclusions and policy recommendations.

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Global Security Program

We are working to bring about a safer world by eliminating the risks posed by nuclear arsenals and nuclear terrorism, improving nuclear power plant safety, opposing the deployment of anti-satellite and space-based weapons, halting the deployment of long-range missile defenses, and enhancing international dialogue on security issues.

2009 LEGISLATIVE PRIORITIES

Promote a New Nuclear Weapons Policy/Agenda – The Union of Concerned Scientists (UCS) supports a fundamental re-assessment of the role and purpose of U.S. nuclear weapons. The current arsenal of some 5,000 weapons is highly reliable and will remain so for the foreseeable future. Our nation's nuclear deterrent is sound. As such, we urge Congress to continue its opposition to the Reliable Replacement Warhead (RRW) program and to any increased capacity to produce plutonium pits. Such programs would undermine U.S credibility and its global nuclear nonproliferation efforts. UCS also supports extension of the U.S.-Russian START Treaty and will help build bipartisan and public support for Senate ratification of the Comprehensive Test Ban Treaty.

Stop the Global Nuclear Energy Partnership (GNEP) – Congress should not support the plan to reprocess spent fuel from commercial nuclear power plants first proposed by the Bush administration. The Global Nuclear Energy Partnership reprocessing scheme would separate out weapons-usable plutonium and other isotopes from the dangerously radioactive components of spent fuel, making it easier for terrorists to acquire nuclear weapons materials. In the near and medium term, the safest and most cost-effective means of dealing with nuclear waste is to store it at reactor sites in hardened dry casks**.** The long-term solution to waste management is development of an appropriate geological repository, and given Yucca Mountain's current woes, Congress should require DOE to begin the search for alternative sites. Any repository selection process should satisfy rigorous safety criteria and local public concerns. And instead of annually pouring hundreds of millions into reprocessing, Congress should support research into improving the safety and security of reactors either in operation or likely to be built in the next few decades.

Strengthen Programs to Prevent Nuclear Terrorism – UCS supports the goal of shortening the timeline for securing the remaining weapons-usable nuclear material around the globe, and Congress should provide both the funding and support for any new programs to reach that laudable goal, including providing additional funding for the International Atomic Energy Agency (IAEA). To ensure that terrorists do not gain access to weapon-usable plutonium, Congress should also eliminate the DOE's mixed oxide (MOX) program at the Savannah River Site (SRS), and instead significantly increase funding to immobilize the plutonium from dismantled warheads.

Improve Space Security – UCS strongly supported Congress' successful efforts to block the establishment of the space-based missile defense "test bed." The test bed, which would consist of prototype interceptors in space, is unworkable and needlessly provocative. Instead, Congress should initiate measures that would support the prohibition of space weaponization, and fund programs to improve the ability of our satellite systems to withstand attacks, to develop the ability to rapidly replace or bypass damaged satellites, and to compensate for lost satellite functions on a regional basis by using backup systems that are not space-based.

Improve Quality of U.S. Information on China, Expand Cooperation on Space – U.S. understanding of Chinese intentions and capabilities, including the motivation for China's test of an anti-satellite (ASAT) weapon two years ago, is hindered by a lack of reliable information. This is due to inadequate Chinese language and cultural skills in U.S. intelligence agencies, and to

insufficient U.S.-China communication on key military, technical and security issues. Congress should take steps to improve the amount and quality of the information it receives on China by promoting greater contact and increased dialogue and cooperation on these issues, including space and nuclear disarmament. Congress should take steps to identify and develop areas of cooperation with China on civil space and build on the success of parliamentary exchanges such as Rep. Ike Skelton's (D-MO) 2007 delegation visit to China.

Improve Nuclear Power Safety – Poor management and ineffective regulatory oversight unnecessarily decreases safety and increases the cost of nuclear power. Congress should require that an external entity conduct safety culture surveys of the Nuclear Regulatory Commission (NRC) staff every two years and make the results publicly available, that spent fuel be transferred from spent fuel pools to dry casks after five years, and that the remaining fuel be dispersed throughout the pool to minimize the vulnerability of nuclear reactor plants to attacks. Finally, UCS recommends that the NRC require *all* new reactor designs be evaluated for vulnerability to aircraft attacks and that all such vulnerabilities be corrected.

Oppose Missile Defense Deployment – The ground-based missile defense program (GMD) in Europe offers no prospect of defending the United States from a real-world missile attack, and undermines efforts to eliminate real nuclear threats to the United States. Congress should oppose the expansion of the GMD system in the United States, and prevent its deployment, including in Europe. The system is unproven, vulnerable to simple countermeasures, and needlessly provocative to Russia and China.

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PUBLICATIONS

- *Toward True Security: Ten Steps the Next President Should Take to Transform U.S. Nuclear Weapons Policy*
  http://www.ucsusa.org/global_security/nuclear_weapons/truesecurity.html
- *Nuclear Power in a Warming World: Assessing the Risks, Addressing the Challenges*
  www.ucsusa.org/nuclearandclimate
- *Nuclear Reprocessing: Dangerous, Dirty, and Expensive*
  www.ucsusa.org/global_security/nuclear_terrorism/extracting-plutonium-from-nuclear-reactor-spent-fuel.html
- *Lost in Translation*
  www.ucsusa.org/global_security/china/lost-in-translation.html
  Critiquing U.S. government assessments of China's military prowess
- *The Missile Defense Space Test Bed*
  www.ucsusa.org/nuclear_weapons_and_global_security/space_weapons/policy_issues/the-missile-defense-space.html

WEBSITE http://www.ucsusa.org/global_security/

Invasive species are that subset of species that cause economic or environmental harm or damage human, plant, and wildlife health when they are introduced to places where they are not native. The goal of UCS' invasive species work is to transform federal policy in order to better protect native species and ecosystems from such invaders. Preventing additional introductions – intentional and inadvertent is key.

LEGISLATIVE PRIORITIES

Conduct oversight of federal appointees and leadership – Federal agencies were charged, by Executive Order, with addressing invasive species problems and the National Invasive Species Council (NISC) was created to coordinate and lead their work. Congress should ensure *that new appointees to federal agencies are committed to the goals of the NISC National Management Plan*. Agencies need leadership with the knowledge and vision to effectively prevent future harmful introductions.

Pass legislation to screen intentional animal imports – Right now, the United States does not require that living organisms be screened for actual or potential invasiveness before import. The need for such a risk screening process has been noted in every major report on invasive species for nearly 20 years. Congress must provide new authority for the U.S. Fish and Wildlife Service to begin such a screening process. Congress should *revise the Lacey Act to require screening for terrestrial and aquatic animals.*

Oversee the U.S. Department of Agriculture's (USDA) revisions to regulations on importing plants – The economic benefits of a pre-import screening process for already or potentially invasive plant imports have been documented. USDA has the authority to require such screening – and to limit imports of the riskiest plants – but does not do so. The agency has begun to revise plant import regulations to address this issue, as well as to better limit import of plants that carry diseases and other pests. *Congress should monitor USDA's revisions to these so-called Quarantine 37 regulations and ensure that they are completely quickly and strengthened substantially.* Horticultural introductions are the primary vector for the introduction of plant pests, and the industry must be regulated to prevent further economic and ecological damage.

Pass legislation to prevent inadvertent introductions – We know and understand the pathways through which unintentional invasive species enter our country. Experts agree that the most effective way to limit these introductions is addressing these pathways, almost all of which cross state boundaries. Federal action is needed to regulate pathways and prevent further invasions. Congress should *reauthorize the National Invasive Species Act and pass a Ballast Water Management Act*. These solutions would coordinate federal authority to rapidly response to invasive species and require treatment of ballast water, the primary vector for the introduction invasive aquatic organisms.

- more -

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Fund essential efforts – When populations of invasive species are first detected, controlling them can be easy and cheap. The opposite is true once they become well-established and widespread. Current funding is a poor match for this reality. Congress should *authorize and establish an Invasive Species Emergency Fund* for rapid response to new invaders. Setting aside special funds – much like those used for responding to oil spills – would permit agencies to act quickly.

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RESOURCES

- ***Our website***
  www.ucsusa.org/invasive_species

- ***Publications***
  Invasive Species Portfolios of Alaska, Texas, and West Virginia as well as analyses of the National Aquatic Invasive Species Act in those states are available at:
  http://www.ucsusa.org/invasive_species/science_and_impacts/impacts/state-invasion-portfolios.html

  The most comprehensive report of invasive species in Ohio is available at:
  http://www.ucsusa.org/invasive_species/ohio

- ***Examples of invasive species challenges and solutions***
  - The Snakehead fish (Family *Channa*) is a voracious predator imported from Asia. Snakeheads are disrupting the ecology of the Potomac River and are spreading. Although imports were retroactively banned this action came too late to stop the invasion.
    SOLUTION: Allow imports only of species that have been pre-screened for potential invasiveness.
  - Veined rapa whelk (*Rapana vernosa*) is a large, predatory marine snail native to the Sea of Japan. Likely introduced through ballast water, like the zebra mussel and a host of other aquatic species in the Great Lakes, this pest is a potential threat to the clam and oyster populations already at low levels in the Chesapeake Bay.
    SOLUTION: Enact effective legislation and regulations to require that ballast water be treated before it is discharged.

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Scientific Integrity Program

UCS is working to restore scientific integrity to federal policy making. Our bipartisan agenda will have minimal costs but will have major positive impacts: effective federal agencies that protect the public health and safety, retention and recruitment of the best and brightest scientists to public service, and restored morale and productivity.

The reforms we advocate have never been more urgently needed. *Across a wide range of issues—from childhood lead poisoning to global warming—science has been manipulated, distorted and suppressed. Indeed, of the nearly 3,400 federal scientists at nine federal agencies who responded to UCS questionnaires over the past three years, more than 1,400 scientists reported that they feared retaliation for openly discussing their respective agencies' mission and work. The new President has announced his commitment to independent science, but a culture of secrecy and suppression at federal agencies also will require systemic change.*

LEGISLATIVE PRIORITIES

Protect Government Scientists — Federal scientists who report efforts to alter or suppress research or technical information are vulnerable to retaliation, and many federal scientists trying to protect the public from unsafe drugs, the environmental consequences of mining, or the dangers of toxic chemicals, have been demoted or even fired. Congress must pass strong, comprehensive whistleblower legislation that specifically includes protection from retaliation for federal scientists who expose efforts to alter or suppress research or technical information.

Increase Transparency in Federal Decision-making — When Congress reauthorizes federal agencies, or creates new agencies or agency programs, it must ensure that their operations are conducted as transparently as possible. The public has a right to know how agencies conduct their business, who tries to influence agency decisions, and the scientific basis for agency regulations. Members of Congress also should hold the administration and agency heads accountable for agency communication policies that respect the right of federal scientists to discuss their research as private citizens, to speak to journalists directly, and to review for accuracy any public document that is based on their research.

Ensure Independent Scientific Advice — Nearly 1,000 scientific advisory committees advise federal agencies on matters ranging from clean air and drug safety to national security. Yet the independence of many of these committees has been compromised because committee members have financial conflicts of interest. Congress should reform the Federal Advisory Committee Act in order to reduce conflicts of interest, increase public access to the advisory committee process and nominations of committee members, and close loopholes that allow special interests to advise federal officials without public scrutiny.

Exercise Oversight — Congress should use confirmation hearings, the appropriations process and other legislative strategies to ensure that federal agencies operate with integrity, transparency, and accountability.

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RESOURCES

- ***Freedom to Speak? A Report Card on Federal Agency Media Policies*** (October 2008)
  www.ucsusa.org/mediapolicies
  - An evaluation of 15 federal regulatory and science agencies assessing how well agency policies and practices promote the open communication of scientific information..
- ***Federal Science and the Public Good*** (December 2008)
  www.ucsusa.org/federalscience
  - A 2008 UCS report that offers detailed recommendations to the new Administration and Congress for restoring scientific integrity to federal policymaking
- ***Interference at the EPA*** (March 2008)
  www.ucsusa.org/EPAscience
  - An in-depth investigation of the agency that is based on dozens of interviews with current and former EPA staff members, an analysis of hundreds of government documents, and the results of questionnaire sent to 5,419 EPA scientists.
- ***Atmosphere of Pressure*** (January 2007)
  www.ucsusa.org/atmosphereofpressure
  - An investigation into the hindrance of climate research through a series of in-depth interviews with federal climate scientists and a survey of scientists at eight federal science agencies.
- ***A-Z Guide to Political Interference in Science*** (ongoing)
  www.ucsusa.org/AtoZ
  - The *A to Z Guide* showcases dozens of examples of the misuse of science on issues like childhood lead poisoning, toxic mercury contamination, and endangered species.

WEBSITE
www.ucsusa.org/scientific_integrity

For updates and and background information on specific federal, regional, and local policy proposals, as well as fact sheets, testimony, letters, and UCS positions you can access the UCS Policy Center: www.ucsusa.org/policy_center.

Union of Concerned Scientists
Citizens and Scientists for Environmental Solutions

Tropical Deforestation and Global Warming

Tropical deforestation is a major cause of global warming, releasing about 20% of the world's greenhouse gases. This is equivalent to the total emissions of the U.S. or of China, and more than the total emissions of every car, truck, plane, ship and train on earth. At UCS we are working to address this issue by promoting domestic and international policy recommendations that reward tropical countries for certified reductions in their emissions from deforestation and forest degradation.

LEGISLATIVE PRIORITIES

Include Tropical Deforestation in Climate Change Legislation – Climate change bills should support reducing emissions from deforestation and forest degradation by allocating auction revenue for international forest protection, while allowing for the purchase of limited emission offsets from tropical forests. These provisions should be included in the climate change bill passed by Congress, and auction revenue allocation should be raised to 4%.

Provide Funding for Pilot Efforts and Early Action to reduce Tropical Deforestation – Other countries are already providing the resources needed to fund tropical nations' development of the capacity to reduce their deforestation rates and earn credits through international carbon markets. Norway, for example, is contributing over $ 500 million annually. The U.S. can strengthen its position in the U.N. Climate Negotiations by similarly supporting reducing emissions from deforestation.

Push U.S. Negotiators to support Reduced Deforestation in International Climate Agreements – Reductions in tropical deforestation are not included in the Kyoto Protocol, but there is ongoing support for including these measures in current climate change negotiations, which will culminate in December of 2009. During the climate change talks U.S. negotiators need to support reducing tropical deforestation as a key element of a strong climate agreement.

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SELECTED PUBLICATIONS

- ***Tropical Deforestation and Climate Change Background***
  http://www.ucsusa.org/global_warming/solutions/tropical-deforestation.html
- ***Factsheets:***
  http://www.ucsusa.org/global_warming/solutions/forest_solutions/REDD.html
  - Estimating the costs of reducing emissions from deforestation
  - U.S. Policy on reducing emissions from deforestation
  - Funding for reducing emissions from deforestation
- ***Out of the Woods: A Realistic Role for Tropical Forests in Curbing Global Warming***
  http://www.ucsusa.org/global_warming/solutions/forest_solutions/REDD.html