



Global Warming Heats Up the Insurance Industry

For more information,
contact: **David Tuft**
dtuft@nrdc.org
202-289-2435

Without action to curb global warming pollution, average global temperatures will continue to rise, increasing the frequency and intensity of wildfires, heat waves, droughts, and floods. A changing climate means instability in the insurance industry: in 2005 insurers paid out a record \$80 billion in weather-related catastrophic losses worldwide, while the following year brought record profits. A Supreme Court ruling on heat-trapping emissions is likely to create new liability for polluters and their insurers. To maintain consistent and affordable consumer coverage, insurers must conduct a comprehensive assessment of their global warming exposure and support responsible policy action to reduce heat-trapping pollution, like that championed by NRDC and industry leaders.

The Reality of Global Warming

The earth is heating up far faster today than at any time in history. Although the daily weather can't be attributed to global warming, the overall trend is clear. Over the past century we have seen rising temperatures, more intense precipitation, melting ice caps, and rising sea-levels—all due to increasing concentrations of heat-trapping gases caused by the burning of fossil fuels. NASA reported that 2005 tied with 1998 for the hottest year on record, and all 10 warmest years on record have occurred since 1990. And it's only getting hotter—the most recent Intergovernmental Panel on Climate

Change (IPCC) projects that the global average temperature will increase by between 4 to 11 degrees Fahrenheit this century if our reliance on fossil fuels accelerates. The IPCC, reflecting the consensus view of hundreds of the world's preeminent climate scientists, concluded that heat-trapping pollution has “very likely” caused most of the rise in global average temperatures since 1950. They predict that without action to curb global warming pollution, it is very likely that heat waves and heavy precipitation events will continue to become more frequent and hurricanes are likely to become more intense.





Global warming will likely contribute to an increase in major flood events.

Global Warming Heats Up the Insurance Industry

Adapting the Insurance Business to a Changing Climate

Historically based insurance premiums don't reflect the risk posed by global warming. Changing weather patterns will affect many insurance lines, including property liability, flood, crop, business interruption, vehicle, health, and life. Insurers can adequately prepare their customers for—and mitigate against—the effects of global warming by:

Creating risk models that account for the uncertainty of a changing climate. Current underwriting decisions based on past events and incomplete models are obscuring insurers' true risk exposure.

Assessing the exposure of different lines of insurance to global warming risks. The availability of affordable insurance drives growth with large impacts on businesses, investors, and consumers, so it's important to assess and appropriately price policies to reflect the financial risks posed by global warming.

Protecting solvency by factoring global warming risk and opportunities into investment decisions. Use large capital reserves to fund renewable energy, energy-efficient buildings, and clean transportation choices while avoiding investments with high carbon risk.

Addressing global warming at its source by developing new insurance products and business practices that reduce global warming emissions and refusing to insure pollution from greenhouse gases unless policyholders take prudent action to reduce emissions.

Encouraging policy makers to require caps on heat-trapping pollution. A cap and trade system combined with building efficiency standards, increases in automobile fuel economy, and renewable electricity production will help to reduce global warming pollution at the lowest possible cost and create the predictability necessary for insurers to offer and price their products appropriately.

Impacts of Global Warming on the Insurance Industry

An increase in hot days and heat waves will directly affect health, life, property, business interruption, and crop insurance. Heat caused at least 700 deaths during a searing five-day heat wave in Chicago in 1995, when temperatures hit 104°F.

Intense precipitation events leading to flooding, inundation, and mudslides will affect property, flood, crop, vehicle, life, health, and business interruption insurance. In January 2005, mudslides in California caused more than \$150 million in damages.

Wildfire frequency and severity will affect crop, property, life, and health insurance. The Department of Energy recently concluded that global warming is likely to increase the risk of wildfires.

Crop failure could result from rising temperatures, drought and flooding from more intense precipitation events. Global warming's effects could also result in the spread of invasive pests and diseases.

Coastal erosion from rising sea levels will affect property, flood, business interruption, and life insurance lines. Climate scientists conservatively predict that during this century global warming could cause sea levels to rise by up to 3 feet.

Increased hurricane peak wind intensities, precipitation intensities, and storm duration could devastate coastal communities, affecting many insurance lines. Increasing sea surface temperatures have been linked to increased hurricane intensity over the past 35 years; since the 1970s, the number of storms intensifying to category 4 or 5 hurricanes has almost doubled.⁴

We can, and we must, take immediate action to prevent the worst effects of global warming. On a federal level, this means rapid action on capping and reducing the heat-trapping emissions that cause global warming. And by developing new products and practices that help encourage reductions in global warming pollution, the insurance industry can play a major role in protecting against the dangers of global warming.

The High Cost of Global Warming

If we don't act now to curb the pollution causing global warming, scientists predict major irrevocable effects—and serious economic consequences.

■ Each year, climate change could eventually cost the equivalent of **between 5 percent and 20 percent of global gross domestic product**.¹

■ Catastrophic losses cost the U.S. insurance industry **\$62 billion in 2005**—up from an average of \$4 billion a year in the 1950s and \$40 billion in the 1990s.²

■ Weather-related losses accounted for **88 percent** of all property losses paid by insurers from 1980 through 2005, costing more than **\$320 billion**.³

¹ The Stern Report: http://www.hm-treasury.gov.uk/independent_reviews/stern_review_economics_climate_change/sternreview_index.cfm

² ISO's Property Claim Services, January 16, 2007 http://www.iso.com/press_releases/2007/01_16_07.html; Munich Re, http://www.munichre.com/publications/302-02354_en.pdf

³ GAO, April 19, 2007. Climate Change: Financial Risks to Federal and Private Insurers in Coming Decades are Potentially Significant. <http://www.gao.gov/new.items/d07285.pdf>

⁴ Webster et al., 2005.