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Insurance Companies Staggering Under Global Warming Damages

BOSTON, Massachusetts, September 13, 2005 (ENS) - As Hurricane Katrina demonstrated, U.S. insurers, government and consumers are at enormous risk of escalating losses from hurricanes and other weather related events, finds a new report by insurance industry experts commissioned by Ceres, a national coalition of institutional investors and environmental organizations.

Rising global temperatures in the coming decades are likely to cause significant increases in severe weather events, such as hurricanes, floods, hailstorms, wildfires, droughts and heat waves, the report warns, cautioning only that no individual hurricane can be attributed to global warming.

"Insurance as we know it is threatened by a perfect storm of rising weather losses, rising global temperatures and more Americans than ever living in harm's way," said Mindy Lubber, president of Ceres, which commissioned the study. "Insurers and regulators have failed to adequately plan for these escalating weather events that scientists predict will intensify in the years ahead due to warming global temperatures."

A ruined house on Dauphin Island, in Mobile County, Alabama

after Hurricane Katrina. Hundreds of thousands of people have been displaced by Hurricane Katrina and need water, ice, food and housing. (Photo by Marvin Nauman courtesy FEMA)

Unless insurers and their regulators take steps to address escalating climate change impacts, companies, governments and the public will suffer even greater financial losses in the future, the authors warn.

The report, "Availability and Affordability of Insurance Under Climate Change: A Growing Challenge for the U.S.," was written by Dr. Evan Mills, a scientist with the U.S. Department of Energy's Lawrence Berkeley National Laboratory; Richard Roth Jr., former chief property and casualty actuary and assistant commissioner at the California Department of Insurance, who now works with the actuarial consulting firm Bickerstaff, Whatley, Ryan & Burkhalter; and Eugene Lecomte, president emeritus at the Institute for Business and Home Safety in Boston.

Their report documents the steep rise in insured and uninsured losses related to weather in the U.S. and how climate change will likely magnify these losses in the years ahead, whether in homeowner losses due to hurricanes, crop losses due to drought or business interruptions due to lightning strikes.

Over the past 30 years, insured losses from catastrophic weather events with damages amounting to over $1 billion have increased 15-fold, the authors calculate. They point out that these losses have far out-stripped premium increases, inflation and population growth over the same time period.

The number of weather-related events, the variability of total losses, and the economic impacts and demographic drivers are all on the rise, the report documents.

Author Richard Roth, Jr. is a consulting actuary who specializes in insurance against natural hazards. (Photo courtesy Bickerstaff, Whatley, Ryan & Burkhalter)

Insured property losses of $45 billion and and total property losses of $107 billion globally in 2004 are rising faster than premiums, population or economic growth - globally and in the United States.

Even after correcting for inflation, weather-related catastrophe losses in the U.S. property-casualty sector have grown from a few billion dollars a year in the 1970s to an average of $15 billion a year in the past decade, punctuated by three peaks of over $25 billion a year and a record high in 2004 that included $30 billion in hurricane losses alone. "Hurricane Katrina's impacts could far exceed those losses," the authors state.

These rising losses are having a visible effect on the profitability of U.S. insurers. U.S. catastrophic losses have grown 10 times faster than premiums since 1971, not counting the thousands of small weather events with under $25 million in insured losses that are not considered catastrophic.

The National Association of Insurance Commissioners (NAIC) was scheduled to discuss the implications of climate change on the insurance industry at its fall meeting scheduled for September 10-13 in New Orleans. The meeting was canceled due to Hurricane Katrina, and the climate change discussion is now slated for the NAIC's winter meeting in December.

"After New Orleans, it's becoming clearer that we are experiencing more frequent and more powerful weather events that pose huge challenges for the insurance industry," said Tim Wagner, director of the Nebraska Department of Insurance, noting that warmer-than-usual water temperatures in the Gulf of Mexico may have added to Hurricane Katrina's strength.

"This is both a coastal issue and a heartland issue," said Wagner. "We're seeing all kinds of extreme weather in the Great Plains, including drought, tornadoes, brushfires and severe hailstorms."

Even before Hurricane Katrina, consumers and businesses in many parts of the United States were seeing higher premiums, lowered limits and increased restrictions in coverage due to rising weather-related losses in Florida, Texas, California and elsewhere.

In Pensacola, Florida debris from demolition and rebuilding after Hurricane Ivan last year. **(Photo by Andrea Booher courtesy FEMA)**

In Florida, last year's wave of hurricanes prompted seven private insurers to stop writing new homeowners policies this year or to exit the market completely, even after they won substantial rate increases.

Meanwhile, a new state-run insurance company has become Florida's second largest insurance provider, and last year it incurred about $2.5 billion of losses from the hurricanes, the authors determined.

In Texas, homeowners saw their premiums double after soaring water-related mold claims, amounting to $3 billion in 2002, caused dozens of insurers to stop writing or renewing homeowners policies. Mold exclusions from homeowner insurance policies are now commonplace in many states.

In the Midwest, crop insurance losses have grown 10-fold in recent decades and now many states are facing a prolonged drought that has many counties being declared federal agricultural disaster areas.

In the West, the average wildfire is twice as damaging compared to the 1970s, and the authors point to a new study projects that wildfire damage in parts of California will quadruple in the coming years due to warmer temperatures and stronger winds as a result of climate change.

If climate change trends and insurance trends continue, the report warns, availability and affordability of insurance will be at even greater risk for homeowners and businesses. State and federal governments can also expect more financial liability as they increasingly become "insurers of last resort" in response to private insurers further restricting coverage and withdrawing from more markets.

The report cites numerous studies predicting that rising global temperatures from higher emissions of greenhouse gases will create additional financial burdens for insurers globally and in the United States.

A recent report by the Association of British Insurers and two of the big-three U.S. catastrophe modelers stated that under a high greenhouse gas emissions scenario - where carbon dioxide levels double from today's levels, as predicted by many leading climate models - wind-related insured losses from extreme U.S. hurricanes could jump to $100 to $150 billion. This increase is equivalent to two to three Hurricane Andrews in a single season in 2004 dollars.

Workers clean up debris outside Memorial Hospital in Gulfport, Mississippi. Hurricane Katrina caused extensive damage all along the Mississippi Gulf Coast. **(Photo by Mark Wolfe courtesy FEMA)**

Such losses would require insurers to boost their capital requirements by 90 percent, resulting in substantially higher premiums and other adverse consumer impacts, say the authors.

Losses under a low greenhouse gas emissions scenario - carbon dioxide levels 40 percent above today's levels - were only one-fifth those of the high emissions scenario.

Weather losses are also becoming more unpredictable, especially as insurers from the U.S. and other industrialized countries are moving aggressively into rapidly emerging markets such as China and India, which pose additional weather risks.

Joel Ario, Oregon insurance administrator and vice president of the NAIC, said the report makes clear that insurers need to do more to assess their growing risks and financial exposure from climate change.

"The insurance industry plays a vital role in identifying and quantifying catastrophic risks so that appropriate loss prevention and risk-spreading measures can be put into place," Ario said. "Reinsurers who provide a backstop on large losses are engaged on the climate issue, but much more work needs to be done by the primary insurers who consumers rely on when catastrophes hit."

Yet, despite these rising insurance risks, climate change has received little attention to date from U.S. insurers, regulators and governments. Among the problem areas highlighted in the report:

- Only a small fraction of U.S. insurance companies have seriously examined the business implications of climate change and fewer still work closely with climate scientists or present their analyses publicly.

- Insurers and regulators currently do not have a comprehensive capacity to assess the cumulative weather-related risks from both catastrophic events and the growing number of small-scale events.

- The U.S. government's full financial exposure from insurance programs (flood, multi-crop insurance etc), disaster relief and other forms of weather-related assistance has never been assessed.

The report recommends the following actions, among others:

- **Insurers need to:** collect more complete data on weather-related losses; incorporate climate modeling into their risk analyses; analyze the implications of climate change on their business and investments and share the results with shareholders; and encourage policy action to reduce greenhouse gas emissions.

- **Regulators need to:** include climate risks in company solvency and consumer-impact analysis; review the "standards of insurability" to identify new challenges, including climate-related hazards in the US and abroad; encourage insurers to collect more comprehensive data on losses; elevate standards for catastrophe modeling; and assess exposure of insurer investments and adequacy of capital and surplus to extreme weather events.

- **Government needs to:** foster and participate in public-private partnership for insurance risk spreading; comprehensively assess the government's overall financial exposure to weather disasters; reduce vulnerability to disaster losses through improved early warning systems, land use planning and other measures; and take policy action to reduce greenhouse gas emissions.

Jack Ehnes, chief executive officer at the California State Teacher's Retirement System, one of the country's largest pension funds, said a growing number of institutional investors are pushing insurance companies to focus more attention on climate change.

"Investors are increasingly more concerned about the financial risks posed by climate change and our interest is especially strong for an industry that is so directly exposed to the physical impacts of global warming," Ehnes said, "Insurers must take active steps to understand and assess these daunting tasks."