Coastal areas may flood, tropical cyclones may grow in strength and frequency, permafrost may melt, disease may come to new areas, crops may fail—and a multibillion-dollar industry has taken notice of these risks.

*Today, global warming is a fact. Since the beginning of industrialisation and the rapid growth of world population, man’s activities—along with natural variability—have contributed to a change of climate manifesting itself as a considerable increase in global temperature. Climate change has the potential to develop into our planet’s greatest environmental challenge of the 21st century. . . . Our actions are based on the premise that it is in the interest of our shareholders, clients and employees, the wider stakeholder community and society in general to tackle this issue.*

This announcement came not from a repentant oil company or a real estate developer focusing on sustainable design but **Swiss Re**, a global reinsurance firm.

For most of us, reinsurance is not the first type of business that comes to mind when we think of global climate change. Reinsurance firms insure insurance companies, sharing the risk of catastrophic losses that may affect the insurance companies’ policyholders. If an insurance company has bought sufficient reinsurance coverage, it can stay in business despite damage claims that exceed its internal ability to pay. Global climate change has the potential to cause vast harm to people, businesses, and infrastructure, so insurance and reinsurance firms are becoming more and more interested in the phenomenon. In fact, the consulting firm **Ernst & Young** declared climate change to be the top strategic risk for the insurance sector in 2008.

Because climate change is predicted to exacerbate known hazards such as tropical cyclones, natural disasters such as Hurricane Katrina may serve as models for future crises in reinsurance. Shortly after Katrina, reinsurance firms began to report on losses from the storm. Ultimately, the National Hurricane Center counted **1,833 deaths from Katrina**, and the Congressional Research Service reported **$43.6 billion in insured losses**; this report also includes a summary of federal disaster insurance legislation.

If climate change proceeds as predicted, reinsurance companies stand to lose huge amounts of money if they do not decrease their exposure, increase their prices, or invest heavily in successful plans, businesses, and technologies to prevent or adapt to climate change. Anticipating climate change effects may prevent loss; on the other hand, capitalizing on moneymaking sectors, such as newly farmable lands, ecotechnologies, and coastal protection infrastructure, may boost profits.

Given the threats mentioned above and the resources at their command, reinsurance companies are bound to be a force in responding to climate change. For 2007, financial statements of four of the largest reinsurance firms, **Munich Re** (the 100th-ranked **Fortune Global 500** Company), **Swiss Re**, **Berkshire Hathaway Reinsurance**, and **Hannover Re**, showed profits of approximately $6.13 billion, $3.98 billion, $1.43 billion, and $1.32 billion
respectively, for a total of $12.9 billion. The combined yearly profit of these four companies is 1,300 times the size of the entire trust fund of the Intergovernmental Panel on Climate Change, and the $12.9 billion total does not include the earnings of many smaller firms in the industry such as those listed here.

Insurance in a Climate of Change, a Lawrence Berkeley National Laboratory Web site produced by staff scientist Evan Mills, has a set of basic links on insurance and reinsurance and climate change. Mills lists several insurance and reinsurance company Web sites on the topic; a bibliography; and a set of links that climate scientists can use to learn about insurance, insurance specialists can use to learn about climate change, and policymakers can use to learn about both. The Natural Hazards Center at the University of Colorado also has an information page on insurance and hazards.

While the risks and resources of reinsurance firms bode well for their active participation in climate change policy, the equity implications of such participation are not necessarily so good for poor people around the world, who typically carry no insurance at all. While reinsurance firms’ motivation is to decrease future insurance losses from storms, they have little direct business incentive to increase the capabilities of poor people to cope with climate change. So, while additional resources devoted to preventing and adapting to climate change are welcome, it is important to remember that insurance claims are not always the appropriate relative measure of tragedy. While Hurricane Katrina caused 1,833 deaths and $43.6 billion in insurance losses, the December 2004 tsunami caused 230,000 deaths but only $4 billion in insurance payouts.