



The ACE Group of Companies – Environmental Report January 2008

ACE believes that all of us, as individuals and corporations, have a responsibility to the planet. The well-being of society depends on a healthy environment, which is the cornerstone of a strong global economy. More fundamentally, we believe that a proper ethic takes into account more than just human society and strives for a sustainable balance between development and preservation.

Climate change is an important and serious issue for the global property and casualty insurance industry because it is our business to provide security against many of the risks posed by such change. Natural catastrophes, for example, in the form of hurricanes, windstorms, flooding, drought and other weather-related events may be increasing in both frequency and severity due to climate change. There is also a developing recognition of the critical role played by certain economic sectors (e.g., energy, aviation, chemical) in the current and prospective health of the environment. As companies respond and adapt to their changing responsibilities and opportunities, the exposure to casualty coverages such as general liability and directors and officers will increase. These increases in exposure may ultimately drive insurance costs higher. The Company recognizes that climate change affects everyone – our customers, employees and shareholders. Therefore, ACE is currently focused on the implications of climate change for all areas of our business and taking action across the Company – internally and externally – all with the goal of making a difference in the environment. These efforts run the gamut from underwriting insurance policies to getting a drink of water.

In our insurance businesses, ACE's risk management modeling and underwriting practices – which are an imperfect and evolving science – continue to adapt to the developing risk exposures attributed to climate change. ACE offers insurance products and services that address a broad range of risks so that companies can develop new, renewable sources of energy and engage in sustainable business development activities around the world. On the other side of the spectrum, carbon reduction initiatives in our offices are addressing both direct and indirect sources of emissions while employee environmental programs range from recycling to energy conservation to the elimination of plastic water bottles. And our philanthropic activities target the environment as a core area of focus.

Responsibility for ACE's environmental action program is a shared commitment at the senior management team level and involves a comprehensive, coordinated effort integrating activity across all areas of the organization.

Climate Change Risks: The Holistic View

There is growing evidence that there is an increasing trend in extreme weather events such as floods, drought, heat waves and, possibly, hurricane intensity, and climate change may contribute to the trend. While cause remains open to debate, global surface temperatures have risen over the last century at an increasing rate, and the five warmest years since 1850 have all occurred in the last decade. The arctic ice cap is shrinking at approximately 2.7% per decade from 1979-2005, with implications for sea levels and coastal flooding. Heat waves (the 2003 European heat wave resulted in 35,000 deaths) and drought (Australia, Western U.S) have become more prevalent.

There was a clear increase in severe hurricane activity in the Atlantic and Caribbean basins in the 1990s. Changes in sea temperature and atmospheric environment may potentially have a consequence on the severity of future hurricanes. Historical events, if repeated today, would cause damage significantly in excess of insured losses caused by either Hurricane Katrina (2005) or Hurricane Andrew (1992). For example, a repeat of the 1926 storm in Florida would cause insured losses in excess of \$169 billion – and even greater economic losses.

Destructive weather of all kinds accounted for nearly 90% of all property losses paid by insurers in the last 25 years. Over the past 40 years, six of the 10 most expensive catastrophes for the property and casualty industry occurred between 2001 and 2005; five of those were weather events in the U.S. These events are impacting human environments that are both more densely populated and more vulnerable. Exposure growth is compounded by increases in population and economic wealth concentrated in high-risk areas such as the coastal regions of both the developed and developing world. Examples include the East Coast of the U.S., Florida in particular, in and around the Thames Estuary of the United Kingdom and along the East Coast of China around the Guangzhou and Shanghai economic zones. A recent O.E.C.D report estimates that today 5% of the world's GDP is exposed to coastal flooding – a threat that will increase as economic wealth, populations and sea levels rise together. While these concentrations grow, the probability of a “miss” from a major event declines. Ironically, the pressure caused by population growth, and its economic footprint, has caused governments to contemplate and sanction

economic development in places previously considered unsuitable: areas of East Anglia, the Thames estuary and Rotterdam are at or below sea level yet serve as European economic hubs for finance or shipping.

Flood events are likely to create more economic loss and apply pressure on risk transfer mechanisms, including the delicate balance between public and private sector provision. Some experts also believe that changes in temperature and precipitation are likely to cause mutation and survival of viruses and bacteria with increased virulence, resistance to treatment and unpredictable infectious routes. The outbreak of SARS demonstrated the impact on travel, communication and economic activity with ensuing insured losses.

Obviously, a societal response is required – from legal and regulatory issues to corporate responsibility – to address both the liabilities and the opportunities presented by climate change. Climate change will also require an holistic or comprehensive risk management approach. As a leading insurer and reinsurer, ACE is exploring innovative ways to engage with its policyholders and other constituencies in managing climate change risk. These include:

- Advising policyholders in catastrophe-prone areas of the potential risk management benefits of transitioning away from such areas;
- Working with governmental agencies on mutually beneficial insurance capacity solutions in catastrophe-prone areas; and
- Consulting with policyholders on a targeted basis regarding their own carbon footprint management.

Risk Management: Modeling, Pricing and Reinsurance

With operations in over 50 countries, ACE's business and operating models are exposed to the full impact of global climate change. While we welcome the opportunity to serve our clients, we also have an obligation to our shareholders to protect their capital and provide appropriate returns. Higher losses or higher volatility means higher insurance prices and may impact availability. This balance between policyholder and shareholder will be tested by climate change-driven events, particularly for risks and coverages where it is difficult to ascertain a fair loss cost and risk premium based on historical experience or scientific methods. For example, it is difficult today for insurance carriers to price and assume flood risk; this difficulty will likely increase as climate change makes flood perils more uncertain yet

potentially more concerning to our clients. The pricing of casualty-related exposures will be made difficult by the unknown nature of some of the risks and the absence of historical precedent and data.

ACE has been a leading proponent and user of catastrophe models to quantify natural catastrophe risk for product pricing, risk management, and capital allocation purposes. These models rely heavily upon scientific and engineering knowledge drawn from past historical events to generate a series of hypothetical, yet plausible, events that can be used to assess each client's risk on a probabilistic basis. ACE uses these models to aggregate and monitor its natural catastrophe exposures across its portfolio and to ensure that its capital base is sufficiently strong to meet with regulatory, rating agency and policyholder expectations and provide shareholders with an appropriate risk-adjusted return.

On the other hand, the earth's climate appears to be changing in ways inconsistent with the historical record upon which catastrophe models draw data. We have adopted a more short-term view of event frequency that is higher than the long-term historical frequency. Concerning North Atlantic hurricanes, for example, this emphasis on short-term data is founded on the assumption that we are in a period of heightened severe hurricane activity arising from the multi-decadal cycle, an observable historical phenomenon, rather than changes directly attributable to climate change. While ACE has adopted this change in frequency, the catastrophe modeling industry faces a serious challenge to appropriately address the evolving impact of climate change risk.

There are other limitations with catastrophe models. While the research, calibration and use of models are relatively well advanced in the United States and Europe for wind and earthquake perils, this is not the case for areas of increasing wealth and demographic concentration such as Asia, which are also catastrophe-prone. And in both developed and developing countries, modeling for secondary perils such as flood lags the science of wind and earthquake perils.

To ensure that ACE is part of a broad climate change solution with its policyholders and private- and public-sector constituencies, the Company is undertaking and supporting scientific-based research to enhance a modeling response to climate change as well as participating in a number of leading environmental information forums. Specific activities include:

- Participating in ACORD, an industry body dedicated to developing industry standards around the structure and transfer of data. For more information, visit: <http://www.acord.org>

- Monitoring climate change-related scientific research through the use of scientific consultants and academicians
- Support of research and use of catastrophe models in developing regions of the world and risk assessment of flood
- Sponsoring research-based initiatives such as the 2007 Catastrophe Modeling Forum, conducted in October 2007 by the Center for Health and the Global Environment at Harvard Medical School and the Insurance Information Institute.
- Working with modeling service providers and academicians to identify and implement climate change parameters in catastrophe models.
- Membership in ClimateWise, a U.K.-based organization of insurance companies committed to taking action on climate change and to reporting publicly on their performance. For more information, visit: <http://www.climatewise.org.uk/>
- Membership in ClimateResolve, the United States Business Roundtable's initiative that seeks to have every company in every sector of the U.S. economy undertake voluntary actions to control greenhouse gas emissions. For more information, visit: <http://www.businessroundtable.org/climateresolve>
- Completion of the Carbon Disclosure Project's CDP5 survey. The CDP is an independent not-for-profit organization aiming to create a lasting relationship between shareholders and corporations regarding the implications for shareholder value and commercial operations presented by climate change. For more information, visit: <http://www.cdproject.net/>

The use of models is but one part of the underwriting of catastrophe-exposed products (e.g., property, energy, marine or disaster mortgage protection), which also includes risk mitigation services through our risk management and site surveys, specification of terms and conditions in policies and the development of sound underwriting guidelines. The exposure approach afforded by our modeling and underwriting allows risk differentiation – and hence price differentiation – across existing and prospective clients. Clients that have been active in risk mitigation – through the use of tools such as retrofitting buildings to comply with updated building codes, installation of hurricane shutters and relocating exposures away from coastlines and flood plains – will have lower insurance costs than those clients not taking such measures. We also make use of terms and conditions such as sub-limits, coverage restrictions and deductibles to ensure appropriate risk selection and potentially reward certain policyholder behavior. Importantly, these pricing mechanisms signal to the market incentives for improved risk mitigation behavior and differentiate risks accordingly.

ACE is also actively engaged with regulators to ensure that pricing is actuarially sound and can be adapted to meet new and emerging climate change risks such as long-tailed casualty exposures and the capital implications of these risks. For ACE to continue to offer coverage under climate change conditions, pricing must always be set at sound actuarial rates that cover loss costs, expenses and risk margins on exposed capital. Thus, it must be flexible over time and by geography. Unfortunately, many regulatory regimes impose the functional equivalent of price controls that are not built to react to developments and encourage increased, rather than reduced, exposures.

Beyond modeling and pricing mechanisms, ACE also mitigates its exposure to climate change risk by actively hedging its portfolio of catastrophe risk in both the reinsurance and capital markets. Such hedging increases the amount of protection ACE can make available to its clients and forms a valuable part of the firm's overall risk management strategy. We are also committed to the development of the capital markets, with a broader capital base, as an alternative or complementary mechanism to hedge risks. Insurers can play a key role in the origination and underwriting of risk and its placement into the capital markets. Such a partnership, in conjunction with the public sector, will help transfer and spread the risks posed by climate change. We have demonstrated this commitment with the issuance of our own catastrophe or CAT bond, which provides ACE with fully-collateralized protection against earthquake and hurricane protection for its U.S. exposures. We will pursue additional instruments and risk transfer mechanisms as opportunities arise.

Successful risk transfer from the policyholder to the insurance and capital markets also requires industry standards around exposure data. We are committed to helping the industry develop improved standards that will ultimately help increase risk transfer capacity and provide additional incentive for risk mitigation behavior by policyholders.

Products and Services: Anticipating the Future

ACE has made a commitment to developing insurance products and risk management services that facilitate market-based solutions to current and pending environmental and climate-related issues.

Specialized products and services addressing these risks fall primarily in three areas: 1) Environmental Risk, 2) Renewable Energy, and 3) "Green" initiatives. However, these issues touch on virtually all lines of coverage worldwide, including traditional property and casualty business.

Specialized environmental risks present a unique combination of scientific, political and financial factors that require specific technical expertise as well as local knowledge. ACE is among the largest and most advanced global underwriters of environmental liabilities and pollution risk, with ACE Environmental Risk units in North America, Europe and Asia. ACE has developed targeted environmental risk products for every segment of the commercial market – from small business to global multinationals. Typical coverages include premises-based exposures, contractors and project pollution liability, professional liability, and an array of coverages for environmental clean-up projects.

As regulation and awareness increase, these coverages are growing in demand, not only from traditional “polluting” industries such as energy and chemical companies, but also from other organizations that own land or have potential liability – including governments, real estate owners and developers, agricultural entities and global consumer brands.

Another major ACE product area addressing these risks, particularly in light of the increased global attention to climate change, is the renewable energy sector. The urgent desire to develop clean, efficient alternative sources of energy is leading to the planning and construction of renewable energy projects all around the world. These projects take many different forms: biomass/biofuel, biogas, energy from waste, fuel cell, as well as solar, wind and hydro energy. Combining the product and risk management expertise from a number of ACE industry groups, including Construction, Energy and Marine, ACE addresses the risks that occur in the two main phases of a typical renewable energy project – construction and operation. Construction risks range from delay in start-up to public or employer liability, whereas operation risks range from business interruption to premises pollution.

ACE is also working with public and private stakeholders worldwide to develop risk transfer and risk management services that allow for innovative responses to the additional risks associated with implementing green initiatives. For example, ACE has a stand-alone property policy that provides coverage for commercial businesses that desire to rebuild to a “greener” standard in the event of a loss to an existing building. The Company is also well positioned, through its third-party administrator ESIS, to provide environmental engineering and consulting services to clients

ACE’s unique combination of risk appetite, expertise and financial strength will allow us to assume a leadership position in the developing areas of: 1) regulated carbon dioxide (CO₂) emissions; 2) political and trade-credit risks associated with the international trading of carbon credits generated from Clean Development Mechanism (CDM) projects under the Kyoto protocols; 3) the potential for increased global

regulation of greenhouse gases regardless of whether they require enhancements to existing products or an entirely new product line approach; and 4) emerging casualty exposures such as D&O.

Internal Operations: Doing Our Part

ACE's global network encompasses approximately 10,000 employees working out of nearly 200 offices in more than 50 countries. Although as an insurance company our "carbon footprint" is modest, we seek to reduce it even further. Climate change responsibility at ACE involves the participation of all of our employees in a global effort to reduce the environmental impact of our own internal operations. This includes the reduction, reuse or recycling of resources as well as efforts to reduce both the direct and indirect emissions generated from heating, cooling and lighting our offices and from Company owned or leased vehicles.

In June 2007, ACE joined the United States Environmental Protection Agency (EPA)-sponsored Climate Leaders program, an industry-government partnership that works with companies to develop long-term, comprehensive climate-change strategies. Partners set a companywide greenhouse gas (GHG) reduction goal and inventory their emissions to measure progress. By reporting inventory data to the EPA, partners create a lasting record of their accomplishments, identify themselves as corporate environmental leaders, and strategically position themselves as climate change continues to unfold. For more information visit www.epa.gov/climateleaders

"The ACE Group of Companies is demonstrating corporate climate change leadership by embracing energy efficiency and technological innovation as sound business investments," said EPA Deputy Director Marcus Peacock. "Many of the nation's leading companies are working aggressively with the EPA to lower their greenhouse gas emissions."

Shortly after joining Climate Leaders, ACE initiated a GHG inventory project to measure the amount of energy consumed and the emissions produced at ACE offices around the world. Working with two outside consultants, Econergy and Environmental Resources Management, ACE developed a web-based questionnaire to enable office managers in each location to efficiently gather and return the proper data needed to quantify ACE's GHG emissions for the 2006 baseline year. The data-gathering effort focused on the following areas: direct and indirect emissions of energy consumption at ACE-owned properties and ACE-leased properties where specific energy usage data is available; direct emissions from company-owned vehicles and aircraft; and indirect emissions generated from corporate business travel. The latter is

an optional category that the company has chosen to measure and include in the Climate Leaders program.

The GHG inventory was completed in November of 2007, with a total of 64,451 metric tons of carbon equivalents reported globally. Of that total, 45,468 metric tons of carbon equivalents is to some degree within the company’s control and that represents the baseline for reduction targets in the Climate Leaders program. The difference between the global total and the controllable baseline is comprised of two categories of GHG emissions that the company has decided to exclude – emissions from multi-tenant leased properties where energy usage is not metered and can only be estimated; and corporate business travel outside North America, where data for the baseline year is not yet at an acceptable level of reliability. A summary of the results is shown in the table below. The Company is currently analyzing results in order to develop a GHG reduction target and strategy.

Emissions Source	Emissions (metric tons CO₂e)
Stationary combustion	1,947
Mobile sources	9,000
Refrigerant	142
Electricity	26,732
Global Emission Total	37,821
US & Bermuda Business Travel	7,647
Global Emission Total with US & Bermuda Business Travel	45,468

Concurrent with the measurement phase, the Company launched a global employee participation program known as ACE Green, which calls for a commitment from all ACE employees to raise environmental awareness and improve environmental efficiency in their local offices. Under ACE Green, the manager of every ACE office has formed a local environmental committee that engages employee volunteers in the selection and tracking of environmental activities that impact ACE’s internal operations. Programs include shredding and recycling in North America, plastic water bottle elimination in Bermuda and printer/copier/fax machine toner cartridge recycling in Singapore.

ACE has also initiated a review of its Bermuda global headquarters building and its North American headquarters building in Philadelphia to determine the steps and investments needed to have them

certified as “green” buildings according to the standards of The Leadership in Energy and Environmental Design (LEED) program. The LEED Green Building Rating System, which is administered by the U.S. Green Building Council, is a recognized benchmark for the design, construction and operation of high-performance green buildings. LEED gives building owners and operators the tools they need to have an immediate and measurable impact on their buildings’ performance. LEED promotes a “whole-building” approach to sustainability by recognizing performance in five key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality. For more information visit www.usgbc.org/LEED

Philanthropy: Making a Difference in the Community

As the charitable arm of the ACE Group of Companies, the ACE Foundations support a mission to assist the communities in which our employees live and work. With the environment designated as one of three areas of focus, the ACE Foundations are committed to promoting a healthy and sustainable environment.

One environmental funding area is conservation: supporting efforts such as reforestation projects and the conservation of land, water and wildlife. For the past three years, ACE has championed land conservation projects through the ACE Land Legacy Fund, managed by the Conservation Fund. Backed by grants totaling more than \$500,000, recent projects include funding to secure the protection of 40 acres along the Delaware Bay’s Prime Hook National Wildlife Refuge and 71 acres that will connect the Arabia Mountain Heritage Area with Panola Mountain State Park near Atlanta, Georgia.

In April 2007, the ACE Land Legacy Fund via the Conservation Fund contributed to the protection of 257,000 acres within the boundaries of Adirondack Park, marking the completion of one of the largest land conservation projects in New York State’s history. By protecting this critical geographic area, positive outcomes include the preservation of key wildlife habitat, enhanced recreation opportunities, and support for the local economy through long-term sustainable forestry. In November of 2006, the Fund directly supported the Conservation Fund’s North Coast Forestland Conservation Initiative, protecting 16,000 acres in Mendocino County that comprise substantial portions of their respective watersheds and that join with public lands to link 97,000 acres of protected land. This acreage will be managed as a working forest, preventing subdivision of the land, enhancing water quality through aggressive restoration, and protecting fisheries and wildlife habitat, while preserving local jobs in one of the most vulnerable parts of the North Coast.

ACE also encourages employees to participate in environmentally-focused volunteer projects. For example, in Philadelphia, ACE has maintained a significant partnership with the Fairmount Park Conservancy's "Growing the Neighborhood" Program. Fairmount Park is one of the largest and oldest municipally-operated park systems in the United States, encompassing 9,200 acres and including 63 neighborhood and regional parks. Many of the practices established in this program are consistent with the Sustainable Parks model emphasizing active and passive recreation, ongoing stewardship and environmental education. In addition to financial assistance over the past five years, ACE employees have worked with local neighborhood groups to support projects in local parks, significantly improving various aspects, from cleanliness and aesthetics to neighborhood safety.

In 2007, ACE employees in Bermuda volunteered their time to several environmental projects on the island including the Keep Bermuda Beautiful charity, which combines clean-up and education activities, and Save Open Spaces, which involves the general maintenance of an active endemic plant and tree nursery. ACE employees in North America also participated in special Habitat for Humanity projects building low-income housing units that exemplify principles of green building. Green homes use non-toxic building materials and energy efficient systems to minimize environmental impact.

While these examples represent some of ACE's more significant environmentally-focused funding and volunteer projects, there are numerous other ongoing and pending projects around the world that represent ACE's community and philanthropic dedication to critical environmental issues.