

ACE GROUP  
ENVIRONMENTAL  
REPORT 2014



insured.®

## **About this Report**

The ACE Group Corporate Environmental Program is now in its eighth year. This report, produced annually, is intended to communicate important information about the company's environmental initiatives to our clients, shareholders, employees, business partners, the communities where we operate and others who have an interest in our company, our industry and the environment.

## **About ACE Group**

ACE Group is one of the world's largest multiline property and casualty insurers. With operations in 54 countries, ACE provides commercial and personal property and casualty insurance, personal accident and supplemental health insurance, reinsurance and life insurance to a diverse group of clients. ACE Limited, the parent company of ACE Group, is listed on the New York Stock Exchange (NYSE: ACE) and is a component of the S&P 500 index. With more than \$94 billion in assets and \$22.8 billion of gross written premiums in 2013, ACE's core operating insurance companies maintain financial strength ratings of AA from Standard & Poor's and A++ (Superior) from A.M. Best. Additional information can be found at: [www.acegroup.com](http://www.acegroup.com).

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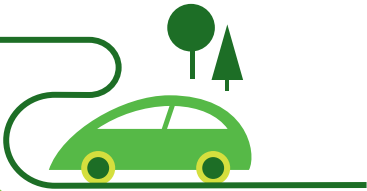
# ACE GROUP ENVIRONMENTAL REPORT 2014

As one of the world's largest multiline property and casualty insurers, ACE has a responsibility not only to provide solutions that help clients manage environmental and climate change risks, but also to control our own ecological impact and contribute to environmental causes. We also believe that the well-being of society depends on a healthy environment and that a proper ethic strives for a sustainable balance between development and preservation.

# RECENT MILESTONES

10%

ACE's new goal to reduce GHG emissions per employee by 2020 from 2012 levels



9

ACE was among only nine insurance companies – out of more than 330 ranked – to earn the highest distinction (“Leading”) in the 2014 Ceres report, *Insurer Climate Risk Disclosure Survey Report & Scorecard: 2014 Findings & Recommendations*



844

Total number of metric tons of carbon dioxide equivalents saved from new building-efficiency projects at ACE-owned facilities in 2013



35+

Number of countries around the world where ACE has issued environmental risk policies



65,000

Number of trees ACE has planted through its sponsorship of American Forests' ReLeaf Program, including 19,340 trees in 2013 – one for each environmental insurance policy written by ACE globally during the year



320,000

The number of acres of threatened lands and waters in the U.S. that ACE has helped save through its support of The Conservation Fund

12%

The increase in gross written premiums from 2012 to 2013 in ACE's environmental risk business units, a reflection of the company's commitment to, and leadership in, developing advanced environmental risk insurance solutions



# ACE GROUP AND THE ENVIRONMENT

## Products & Services

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As a global insurance company, assessing risk is a core competency for ACE. The company is among the largest and most advanced global underwriters of environmental liabilities and pollution risks.

ACE is committed to developing insurance products and risk management services that facilitate market-based solutions to environmental and climate-related issues. While ACE already held a strong position in the market for environmental insurance coverage, the recent surge in commercial interest in the company's products and capabilities has helped enhance this position. ACE's solutions include environmental risk, renewable energy insurance and "green" initiatives that provide incentives and discounts to certain property customers for environmentally friendly behaviors.

## Operations

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A primary objective of ACE's environmental program is to measure, record and reduce greenhouse gas (GHG) emissions in the company's own operations.

Since 2006, ACE GHG emissions have been reduced nearly 22% per employee. In September 2014, ACE announced a new companywide goal to reduce GHG emissions by 10% per employee from 2012 to 2020. To achieve its new goal, ACE will continue to deploy the approaches it has used successfully to date, including installing energy-efficient lighting and equipment and more efficient use of office space.

## Philanthropy

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The environment is a priority in ACE's corporate philanthropy.

ACE supports the communities around the world in which our employees live and work through our established philanthropic entities and via company-sponsored volunteer initiatives. Grants from the ACE Charitable Foundations have helped preserve sensitive lands and habitats across the U.S. and around the world.

# INTRODUCTION

Climate change is an important and serious issue for the global insurance industry because it is our business to provide security against many of the property-related risks posed by such change. With operations in 54 countries, ACE's business and operating models are exposed to the full impact of global climate change. At ACE, we recognize that a changing climate affects everyone — our customers, employees, shareholders, business partners and the people who live and work in the communities we serve. Therefore, climate change is integrated into aspects of ACE's short- and long-term strategies.

In our approach to managing risk, we recognize that climate change could be partly responsible for the increase in frequency and severity of natural catastrophes. As a result, ACE has integrated climate change into its ongoing risk management process. We have long been a leading proponent and user of catastrophe models to quantify natural catastrophe risk for product pricing, risk management, capital allocation purposes and to simulate and estimate hurricane losses. We have altered the assumptions in our catastrophe loss modeling to reflect a higher frequency of catastrophes.

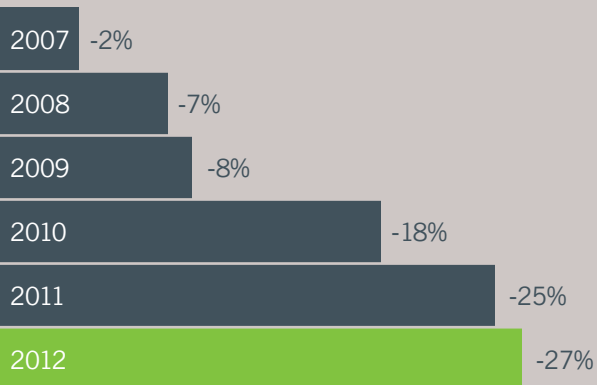
In our business, ACE has been a pioneer in developing advanced environmental risk insurance solutions, including coverages for premises-based exposures, contractors' and project pollution liability, and renewable energy and environmental cleanup projects. The company also offers green building consulting services and a property policy that enables rebuilding to greener standards after a loss. Our environmental risk business continues to produce solid financial results. In 2013, gross written premiums were up 12% from the previous year.

In our operations, we continue to focus on reducing our carbon footprint around the world. In September 2014, ACE established a new companywide goal to reduce greenhouse gas (GHG) emissions by 10% per employee from 2012 to 2020. The commitment follows the successful achievement of the company's first emissions reduction goal, which was 8% per employee from 2006 to 2012. Since 2006, the company's GHG emissions have been reduced nearly 22% per employee.

## ACE's GHG Emissions Reduction Goals

Cumulative Per Employee

**First Goal:** Reduce GHG emissions 8% per employee by 2012 (Base Year: 2006)



**Goal Status:** Achieved and exceeded ahead of plan

**ACE's New Goal:** Reduce emissions 10% per employee by 2020 (Base Year: 2012)

In our corporate philanthropy, the environment is also a priority. Around the world, grants from ACE's charitable foundations are helping to preserve sensitive lands and habitats, finance "green-business" entrepreneurs and educate farmers on growing sustainable crops.

ACE's Corporate Environmental Program is now in its eighth year. We continue to be at the forefront in addressing environmental issues and the implications of climate change for all areas of our business — internally and externally. We are proud of the progress we have made thus far and are committed to taking further steps to make meaningful improvements in the environment.



# PERSPECTIVE ON CLIMATE CHANGE RISK

In his 2013 Letter to Shareholders, ACE Chairman and CEO Evan Greenberg observed, “Many think of insurance as kind of bureaucratic and slow-moving. Nothing could be further from the truth. We are a reflection of society globally — we are part of the financial grease that supports economic growth — and we assume a portion of the risk that is created as a result of that economic activity.”

At ACE, we recognize that a changing climate affects everyone — our customers, employees, shareholders, business partners and the people who live and work in the communities we serve.

One of those significant risks is exposure to the impact of climate change. Our business involves providing clients with insurance and reinsurance protection from the impact of natural catastrophes, including weather events that may be more frequent or severe due to a changing climate.

We do see evidence of an increasing trend in extreme weather events — floods, drought, heat waves and hurricane intensity — and climate change is potentially a contributor to the trend. A 2013 Intergovernmental Panel on Climate Change report found that “warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. The atmosphere and ocean have warmed, the amounts of snow and ice have diminished, sea level has risen, and the concentrations of greenhouse gases have increased.”<sup>1</sup>

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 were weather events (Hurricanes Katrina, Andrew, Ike and Ivan, Superstorm Sandy and the Thailand flood) that occurred over the past two decades, causing approximately \$200 billion of insured losses in inflation-adjusted dollars.<sup>2</sup> In 2013, global weather-related events, including flooding in Central Europe and Indonesia, drought in Central and Eastern China and parts of the United States, and devastating storm systems like Super Typhoon Haiyan, have accounted for about \$31 billion in insured catastrophe losses.<sup>3</sup>

Each of the last three decades has been successively warmer at the Earth’s surface than any preceding decade since 1850, IPCC has reported. Changes in temperatures have also become more prevalent over the last 50 years. In fact, the National Oceanic and Atmospheric Administration’s National Climatic Data Center notes that the globally averaged temperature for 2013 tied as the fourth warmest year since recordkeeping began in 1880.

The U.S. Environmental Protection Agency notes that the global sea level rose throughout the 20th century and the rate of change has accelerated in recent years. When averaged over all the world’s oceans, absolute sea level increased at an average rate of 0.06 inches per year from 1880 to 2012. If the Arctic ice cap continues shrinking at the current rate, it will have implications for sea levels and coastal flooding.

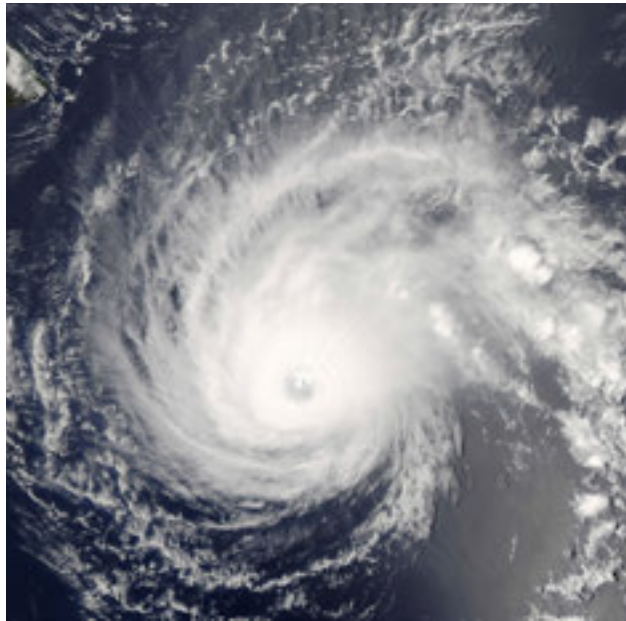
Many of these natural catastrophes are affecting human environments that are now more densely populated and more vulnerable. Exposure growth is compounded by increases in population and economic wealth concentrated in high-risk areas such as the coastal regions of the developed and developing world. 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.

Beyond natural disasters and weather events, some experts contend that changes in temperature and precipitation are a likely consequence in the mutation and survival of viruses and bacteria — with increased virulence, resistance to treatment and unpredictable infectious routes — and are a direct threat to human health. A World Health Organization assessment notes that highly climate-sensitive diseases, such as malaria and dengue fever, are only expected to worsen as the climate continues to change.

It is clear that a societal response is required — from legal and regulatory issues, to corporate responsibility — to address the liabilities and the opportunities presented by climate change. Climate change will also require a holistic or comprehensive risk management approach.

As a leading insurer, ACE is implementing 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 mitigation, including the transition away from such areas
- Providing innovative risk-mitigating insurance solutions to companies that must operate with climate change risks
- Working with governmental agencies on mutually beneficial insurance capacity solutions in catastrophe-prone areas
- Consulting with policyholders on a targeted basis regarding their own carbon footprint management



1 IPCC, 2013: Summary for Policymakers. In: *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, N.Y., USA.

2 Swiss Re sigma study 1/2014, "Natural catastrophes and man-made disasters in 2013: large losses from floods and hail; Haiyan hits the Philippines"

3 Munich Re: 2013 Natural Catastrophe Year in Review, January 7, 2014



# MANAGING RISK AT ACE



Photo: IBHS

*ACE is a member of the Insurance Institute for Business & Home Safety (IBHS) in the U.S., which advocates for stronger building codes and other risk/loss mitigating efforts.*

As a global insurance company, assessing risk is a core competency for ACE. The ratings agency Standard & Poor's has graded ACE's enterprise risk management process as "strong." Our approach to risk management is to identify all known and emerging risks that could have a significant impact on overall capital levels and financial results. Regarding the potential effects of catastrophe losses, we closely monitor our catastrophe risk accumulation around the world.

Because the potential physical effects of climate change present a significant risk to the company, they have been integrated into ACE's overall risk management process.

## Modeling

ACE has been a leading proponent and user of catastrophe models to quantify natural catastrophe risk for product pricing, risk management, capital allocation purposes and to simulate and estimate hurricane losses. ACE uses models to aggregate and monitor natural catastrophe exposures across its portfolio and to ensure that its capital base is sufficiently strong to meet the expectations of regulators, rating agencies and policyholders and to provide shareholders with an appropriate risk-adjusted return.

Through the use of catastrophe models, ACE manages severe weather risk to indirect client exposures throughout the world. Special emphasis is given to areas where ACE has significant exposures and the inherent risk of extreme weather events — such as tropical cyclones and windstorms — is deemed to be high, such as the coastal United States, Southeast Asia, the United Kingdom and Continental Europe.

Since the Earth's climate appears to be changing in ways inconsistent with the historical record upon which catastrophe models draw data, ACE has adopted a short-term view of event frequency that is higher than the long-term historical frequency.

Several major natural catastrophes in recent years, such as the tsunami following the Japanese earthquake and the floods in Australia and Thailand, were non-modeled events or involved difficult-to-model coverages (e.g., business interruption). These types of losses have not typically been considered in the risk and pricing model framework used by the insurance industry to project natural catastrophe losses and this has led to an overall rise in the industry's perception of risk.

With lessons learned from recent events — new assessments of building performance and improved understanding of how a convergence of conditions can increase losses in a severe catastrophe — we incorporate this latest knowledge in our modeled loss estimates.

Our approach to risk management is to identify all known and emerging risks that could have a significant impact on overall capital levels and financial results.



### Pricing

ACE incorporates risk mitigation services through its risk management and site surveys, specification of terms and conditions in policies and the development of sound underwriting guidelines into the underwriting of catastrophe-exposed products (e.g., property, energy, marine or crop coverage). ACE's modeling and underwriting approach allows for risk — and hence price — differentiation across our client base.

Clients that mitigate risk — through 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 that do not. ACE also makes use of terms and conditions, such as sub-limits, coverage restrictions and deductibles, to ensure appropriate risk selection and potentially reward certain policyholder behavior.

The company 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 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, pricing must be flexible over time and by geography.

Unfortunately, many regulatory regimes impose the functional equivalent of price controls, which are not built to respond to developments in risk assessment and signal the wrong incentives to consumers who are encouraged to increase exposures.

### Reinsurance

We mitigate our exposure to climate change risk by actively hedging catastrophe risk in both the reinsurance and capital markets. For example, in 2013 and 2014 ACE established two special purpose vehicles, Altair Re and Altair Re II, respectively, to provide additional capacity to broadly support its global property catastrophe reinsurance portfolio. ACE is committed to the development of the capital markets 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 bond, which provides fully collateralized protection against U.S. earthquake and hurricane exposures.

In addition, our investment portfolio, which backs the loss reserves and claims-paying ability of our insurance businesses, is highly diversified by risk, industry, location and type and duration of security.

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

# SUPPORTING SOLUTIONS

ACE has participated in and supported scientific-based research to enhance the loss modeling response to climate change and is participating in leading environmental information forums. Specific activities include:

- Membership in the Geneva Association ([genevaassociation.org](http://genevaassociation.org)), an international insurance think tank representing 90 global insurance organizations, whose Climate Risk and Insurance project has been outspoken on climate change issues. ACE was part of a working group that produced a report on ocean warming and the implications for the insurance industry. In May 2014, ACE's Chairman and CEO was among 66 chief executives of major international insurers who publicly confirmed their commitment to the Geneva Association's Climate Risk Statement — a set of guiding principles on the substantial role insurance can play in global efforts to tackle climate-related risks.
- Completion of CDP's annual survey to further support our commitment to reducing our carbon emissions. In 2012 and 2013, ACE was named to CDP's Global 500 Climate Performance Leadership Index (CPLI) and S&P 500 CPLI. ACE was the only insurer to appear on both lists each year.
- Participation in ClimateWise ([climatewise.org.uk](http://climatewise.org.uk)), a U.K.-based organization of insurance companies committed to taking action on climate change and to reporting publicly on their performance.
- Membership in the Business Roundtable (BRT), which supports climate related initiatives, including Climate Resolve, which seeks to have companies in every sector of the U.S. economy take voluntary actions to control GHG emissions. Each year, ACE Chairman and CEO Evan Greenberg outlines the company's environmental commitment and achievements in the BRT's Sustainability Report. In addition, BRT introduced its Taking Action on Energy initiative, which outlines a long-term policy framework that focuses on boosting economic growth by ensuring access to affordable energy supplies, enhancing energy security and promoting environmental stewardship.
- Membership on the Reinsurance Association of America's (RAA) Extreme Events Committee, which focuses on catastrophe modeling improvements to reflect climate change. ACE supported the RAA's call for reform of the National Flood Insurance Program (NFIP) in the U.S. Congress. The RAA has pushed to strengthen the provisions of the legislation to ensure that the NFIP's rates were actuarially sound and encouraged risk mitigation.
- Membership in the Insurance Institute for Business and Home Safety, a U.S.-based non-profit scientific and educational organization sponsored by the property insurance industry that supports the sharing of expertise in loss mitigation-related public policy areas including wind-related loss events. In 2013, IBHS provided testimony to a U.S. House of Representatives subcommittee on the enactment and enforcement of the Safe Building Code Incentive Act.



# OUR PRODUCTS & SERVICES



*ACE has been a pioneer in developing advanced environmental risk insurance solutions, including coverages for premises-based exposures and contractors' and project pollution liability.*

ACE is among the largest and most advanced global underwriters of environmental liabilities and pollution risk, with environmental risk units in North America, Europe, Asia and Latin America. We are committed to developing insurance products and risk management services that facilitate market-based solutions to current and pending environmental and climate-related issues.

Our products and services, which fall primarily into the areas of environmental risk, renewable energy coverage and “green” initiatives, touch on virtually all lines of coverage worldwide. The full range of environmental and sustainability property and casualty products and services include:

- Carbon capture and storage (CSS) insurance
- Emissions reduction project insurance
- Environmental professional indemnity
- Environmental risk products
- Global weather insurance
- Green property insurance
- Political risk and trade credit
- Renewable energy construction, technical lines

## Energy and Marine Insurance

The use of energy and marine insurance products and services allow for the direct or indirect reduction of GHG emissions in many instances. For example, ACE’s Renewable Energy Construction, Technical Lines, Energy and Marine Insurance programs combine management expertise from a number of ACE industry groups and allow for the development of clean and efficient alternative sources of energy.

## Environmental Liability Insurance

ACE is fully aware that specialized environmental risks present a unique combination of scientific, political and financial factors that require specific technical expertise and local knowledge. As environmental regulation and awareness increase, coverages for environmental liabilities 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. These include governments, real estate owners and developers, manufacturers, agricultural entities and global consumer brands. ACE monitors more than 3,000 environmental regulations awaiting attention from legislators and regulators around the globe, all with the potential to alter how commercial clients conduct their business. These include both new initiatives as well as increased enforcement of existing laws and regulations.

To meet the strong and growing demand, ACE has bolstered its environmental underwriting staff and introduced many innovative products. In the last year, ACE also established environmental specialty practices in Rotterdam, Netherlands and Cologne, Germany. ACE has issued environmental policies in more than 35 countries around the world.

Product innovations include the Global Premises Pollution Liability (PPL) and Contractors’ Pollution Liability (CPL) policies for U.S. multinational corporations doing business at home and abroad. The CPL and PPL programs combine insurance with technical support to help contractors reduce their environmental exposure. Also, ACE’s Hazardous Material/Waste Transportation product line offers safety and claims services for hazardous materials and hazardous waste transporters. The CPL and hazardous material transportation products have received Risk Innovator Awards from *Risk & Insurance* magazine.

The company also expanded its product line to include catastrophe management coverage, which handles the cost of services to maintain and restore public confidence following an environmental catastrophe. Outside the U.S., the company's core environmental products continue to be launched through ACE Global Markets at Lloyd's in London, and interest has surged in various regions. In 2014, environmental liability insurance products for storage tanks were introduced in the United Kingdom and Australia.

Among the broad range of bundled/unbundled environmental engineering and risk minimization services available for ACE Environmental Risk insureds are the following:

- Evaluation of existing waste management protocol/disposal site selection
- Evaluation of existing mold, asbestos and lead management plans
- Evaluation of existing underground storage tank management programs
- Evaluation of spill prevention, control and countermeasure (SPCC) plans
- Mock regulatory audits for point source pollutants into surface waters, air pollutants and solid waste pollution (for compliance with the National Pollutant Discharge Elimination System (NPDES) and the Resource Conservation and Recovery Act (RCRA))
- Training (mold awareness, underground storage tank program management, 24 HAZWOPER for hazardous waste operations, etc.)

ACE has demonstrated its leadership in insuring environmental risks in other ways. The company has provided information to the National Association of Insurance Commissioners and individual state insurance regulators in the U.S. related to climate change risks and related company policies. ACE also shares its insights and perspectives through whitepapers. Recent examples include, "Protecting Against Environmental Risks in the Global Marketplace," and "M&A Risk Management: Global Environmental Liability," which highlights the changes in environmental regulations around the world and how ACE's products and services can help protect against the risks associated with these regulations.



### Renewable Energy Initiative

The renewable energy sector is another major product area for ACE, particularly in light of the increased global attention on climate change. The desire to develop clean, efficient alternative sources of energy is leading to the planning and construction of renewable energy projects 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. ACE addresses 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.



### Green Initiatives

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ACE works 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. ACE's standalone Green Property Insurance policy provides coverage for commercial businesses that desire to rebuild to a "greener" standard in the event of a loss to an existing building. This includes: energy-efficient appliances, electronics, heating and cooling systems, interior plumbing systems and lighting fixtures; low volatile organic compound (VOC) paints, primers, solvents, finishes and adhesives; low emissions carpet and floor coverings; or Forest Stewardship Council (FSC) certified wood. There are also premium credits available to customers that buy "preventative measures" coverage which provides the policyholder up to a certain amount of money if the insured has certain mitigation features in place. These policies all encourage actions from ACE's customers that help to reduce GHG emissions.

### Consulting Services

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ACE clients also receive a full complement of traditional environmental consulting services, including industrial hygiene assessments; regulated and hazardous materials management and remediation oversight; environmental due diligence for the real estate and finance markets; and Leadership in Energy and Environmental Design (LEED) and regulatory compliance consultation. Customized Occupational Safety and Health Administration (OSHA) compliance training programs and services are also provided, with programs in asbestos, lead-based paint and microbial management, and water intrusion prevention. Accredited compliance staff are also available to augment clients' environmental and safety personnel at their locations as necessary to meet their health, safety and the environment (HSE) objectives.

### Other Coverages

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Coverages such as property catastrophe, crop and business interruption insurance are significant businesses for ACE, and the company continues to invest in these businesses and in developing solutions to help clients manage the physical risks posed by climate change. Today, ACE is one of the leading crop insurers in the U.S. through the company's Rain and Hail Insurance Service business. ACE Agribusiness insures companies that manufacture, process and distribute agricultural products. In addition, our Global Weather coverages help clients insure against unpredictable weather conditions and climate change, protecting their assets around the world against damage or loss due to adverse weather conditions.





# OUR OPERATIONS

One of the primary objectives of ACE's Corporate Environmental Program is to measure, record and reduce GHG emissions. As an insurance company, ACE has a modest "environmental footprint." However, we aim to reduce our mark on the environment even further. This includes efforts to reduce the direct and indirect GHG emissions generated from heating, cooling and lighting our offices and from company owned or leased vehicles, as well as the reduction, reuse or recycling of resources.

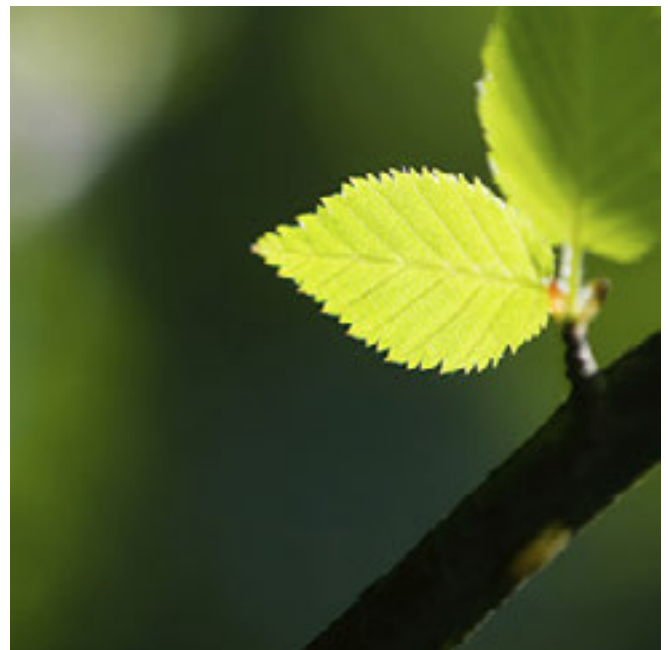
Since 2006, ACE has reduced GHG emissions by 22% per employee. In September 2014, ACE announced a new companywide goal to reduce emissions by 10% per employee from 2012 to 2020.

The company first developed its Corporate Greenhouse Gas Inventory Management and Reduction Plan in 2007, when ACE joined the voluntary Climate Leaders initiative sponsored by the U.S. Environmental Protection Agency (EPA). The plan included global emissions reporting, the establishment of a reduction goal and a strategy for achieving the goal. Using the Climate Leaders methodology, ACE achieved the initial six-year GHG reduction goal of 8% per employee ahead of schedule. ACE's 2013 emissions data, which were third-party verified to Environmental Resources Management's GHG Performance Data Assurance Methodology, showed a 10% net absolute reduction (8% gross) from the 2006 base-year level.

While the EPA's Climate Leaders program was discontinued in late 2011, our Corporate GHG Inventory Program is still actively using its methodology, which is based on the World Resources Institute and the World Business Council for Sustainable Development (WRI/WBCSD) GHG Protocol for data collection and analysis. ACE has gained invaluable knowledge and skill related to climate change issues through the Climate Leaders initiative and is proud to have been one of only a few insurance company partners in the program.

ACE also reports its GHG emissions data and related activities to CDP, an international, not-for-profit organization providing the only global system for companies and cities to measure, disclose, manage and share vital environmental information. In 2013, ACE was named to the CDP's Global 500 Climate Performance Leadership Index (CPLI) and the S&P 500 CPLI for the second consecutive year. In 2014, ACE earned a disclosure score of 93 and a performance score of B.

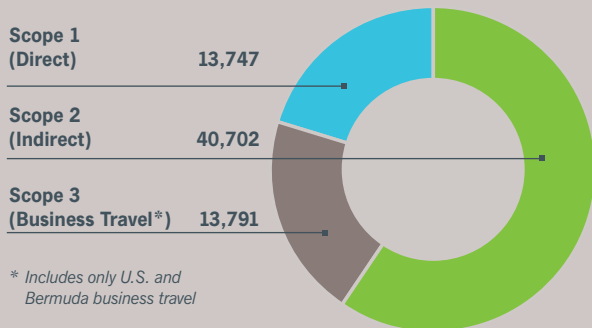
In 2014, ACE was also designated a "Leading" company by Ceres, the nonprofit sustainability organization, in its first-ever report evaluating climate risk disclosures by insurers. ACE was one of only nine companies out of 330 ranked to earn this distinction. The report, *2014 Insurer Climate Risk Disclosure Survey Report & Scorecard: Findings & Recommendations*, ranked insurance companies based on six climate-related indicators, including governance, risk management, investment strategies, greenhouse gas management and public engagement.



### ACE Group 2013 GHG Emissions Profile

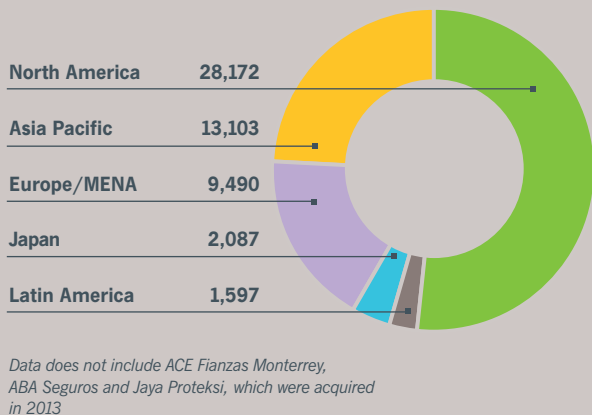
#### Profile by Scope

In tons of carbon dioxide equivalents (tCO<sub>2</sub>e)



#### Profile by Region — Scope 1 and 2

In tons of carbon dioxide equivalents (tCO<sub>2</sub>e)



To achieve our GHG reduction goals, we have aggressively worked to make reductions within our operations. Our plan focuses on reducing our energy consumption at the facility level — primarily in our owned buildings and larger, long-term leased spaces. In 2013, for example, ACE voluntarily completed and implemented several building efficiency projects at our owned facilities, such as lighting projects and improvements to HVAC systems. These projects are estimated to save approximately 844 metric tons of CO<sub>2</sub>e each year.

Another approach to reducing our GHG emissions is to reduce our overall real estate square footage by condensing office locations and making work spaces more efficient. Applying new company standards for the number and size of office and cubicle spaces not only reduces total real estate per-person square footage, but allows more light into the space, which decreases electricity consumption.

Emissions from mobile combustion — which account for 15% of ACE’s GHG inventory — include our global fleet of vehicles and aircraft.

ACE manages its flight-related emissions by operating new, ultramodern jet aircraft equipped with the latest engines, wings and avionics design technologies, making them leaders in their respective aircraft categories for efficient flying. These advanced capabilities allow ACE’s aircraft to operate at very high altitudes and consume less fuel. These advanced aircraft also fly optimal routes, which have shorter distances between world destinations, saving fuel and, ultimately, the release of GHGs.

### ACE Group 2013 GHG Inventory Data

	2006	2013	Change
Total Emissions (CO <sub>2</sub> - eq. (metric tons))	72,441	66,867	-7.7%
Normalization Factor (FTE employees)	13,648	16,060	17.7%
Normalized Emissions (CO <sub>2</sub> -eq/NF units)	5.31	4.16	-21.7%

ACE has implemented green building practices and, in a number of locations, has pursued the U.S. Green Building Council's LEED certification. Green building practices help improve indoor air quality, address resource management and reduce building water use.

Our North American headquarters building in Philadelphia earned LEED Silver certification in 2009, becoming the city's first LEED-certified existing building. In 2011, our Bermuda executive office building earned another "first" for the company when it was awarded LEED Gold certification under the LEED Existing Building (EB): Operations and Maintenance rating system, making it the first building on the island to earn LEED certification. In addition to high levels of energy efficiency, both of these buildings have a comprehensive indoor air quality program, a green cleaning program, a commitment to sustainable purchasing and waste management, and an integrated pest management plan that, together, combine to provide ACE employees a safe and comfortable working environment with minimal impact to the natural world.

### Employee Engagement

Our employees globally play a key role in supporting the company's environmental commitment.

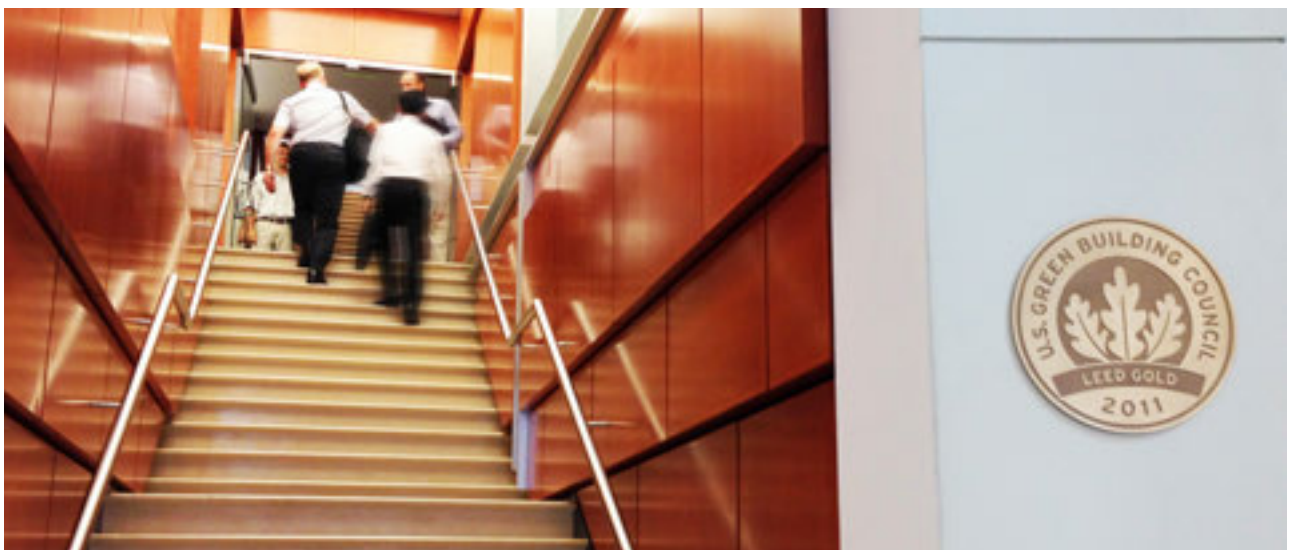
For example, many offices around the world have formed volunteer committees whose goal is to control or reduce the environmental impact of their local operations. In recent years, employees have helped the company achieve substantial progress on the following five initiatives:



*ACE provides LEED consulting services for customers and has earned LEED certification on its own buildings in Philadelphia (above) and Bermuda (below).*

- Establishing recycling programs in all eligible offices
- Discontinuing the use of disposable plastic water bottles
- Removing all disposable Styrofoam products in offices
- Purchasing only sustainable copy paper in all offices
- Reducing paper consumption by 5%

A significant majority of our offices have achieved all five goals and have set a positive example for others to follow.



# OUR PHILANTHROPY



Photo: Roots of Peace

*In Vietnam, ACE supports sustainable farming through an initiative to restore lands once contaminated by land mines.*

The environment is a priority in ACE's corporate philanthropy. The ACE Charitable Foundations and the company's employees support a wide range of environmental philanthropies and volunteer activities in local communities around the world. Through these initiatives, ACE addresses the "societal" aspects of climate change and promotes a healthy and sustainable planet.

Since 2005, ACE has supported The Conservation Fund, which has protected more than 7 million acres across the U.S. The foundation has funded the ACE Land Legacy Fund, a revolving pool of capital within The Conservation Fund that has been leveraged with other capital sources to protect 320,000 acres of the nation's most threatened lands and waters. The ACE Land Legacy Fund has helped protect the Big River and Salmon Creek in California; the Rocky Mountain Front in Montana; the Kishwaukee River Corridor in Illinois; the Gualala River Forest in California; and the Nanticoke River within the Delaware Bay Watershed. Most recently, the ACE Charitable Foundation supported a grant to protect key watersheds and wildlife migration corridors.

ACE grants also support The Conservation Fund's ShadeFund™ program, which provides financing to green business entrepreneurs in the U.S. The ShadeFund™ program provides small loans to promising green entrepreneurs by pooling contributions from individuals, companies and foundations. As entrepreneurs repay their loans, capital is redeployed to help other entrepreneurs grow their businesses, thus creating jobs, preserving working forests and supporting rural communities across the country. Another approach to environmental support is fostering sustainability and effective resource management. In 2013, the ACE Charitable Foundation provided support to train Vietnamese farmers with a two-year grant to Roots of Peace for the expansion of the Quang Tri Province Black Pepper farming initiative in Vietnam. ACE's support helps restore land previously contaminated with landmines, allowing sustainable crops such as black pepper to grow. Nearly 900 farmers are participating in the program.

In 2013, the ACE Foundation-International provided funding to Natuurmonumenten, an environmental organization in the Netherlands. The project is restoring areas in the Maas forest of Mount Saint Peter nature reserve, which has Natura 2000 status (a prestigious designation for the top nature reserves in Europe). The habitat on Mount Saint Peter is very rare in the Netherlands and is in danger of possible extinction without restoration of the area.

ACE continues to partner with the Bren School of Environmental Science & Management at the University of California, Santa Barbara. The ACE Group Project Fund supports Bren's master's degree program students who conduct group projects that promote a healthy and sustainable environment. In 2014 and 2015, ACE will support two new projects: a sea level rise vulnerability assessment for the City of Santa Barbara and a study of the Lake Mead and Lake Powell reservoirs, which have been consistently dropping in recent years due to heavy consumptive use by water users in California, Arizona and Nevada and prolonged drought.





*ACE supports the American Forests' Global ReLeaf Program, including a project to plant more than 67,000 mangrove trees in the Philippines.*

ACE's Environmental Risk business unit also supports conservation efforts. 2014 marked the seventh consecutive year the group has contributed to American Forests' ReLeaf Program, the oldest national nonprofit conservation organization in the U.S. This year, ACE selected seven national and three international forest restoration projects and will sponsor the planting of 19,340 trees — one for each environmental insurance policy written by ACE globally in 2013. To date, ACE has sponsored the planting of more than 65,000 trees through the program.

### **Volunteer Efforts**

ACE also organizes employee volunteer projects with an environmental focus. In Philadelphia, ACE has maintained a significant partnership with the Fairmount Park Conservancy and its Growing the Neighborhood Program. Fairmount Park is one of the largest and oldest municipally operated park systems in the U.S., encompassing 9,200 acres and 63 neighborhood and regional parks. In addition to financial assistance over the past 11 years, ACE employees have volunteered on park cleanup days throughout the year.

In the fall of 2013, multiple ACE offices supported environmentally conscious volunteer efforts as part of the Insurance Industry Charitable Foundation's annual Week of Giving. The New York office volunteered at the FEGS Health and Human Services Residence Center Garden Project, removing and planting shrubs and flowers. These efforts helped rebuild an area that was severely damaged in Superstorm Sandy. In Chicago, employees helped clean North Avenue Beach. These volunteer efforts allow ACE employees to have a positive impact on their local environments.

ACE employees in Bermuda have volunteered for several environmental projects on the island, including the Keep Bermuda Beautiful charity, which combines cleanup and education activities. Additionally, the ACE building facilities team volunteered in the Trunk Island Project with the Bermuda Zoological Society. The project goal was the removal of invasive plant species found on the island. The ACE Bermuda property team also volunteers at Windreach Recreational Village, assisting with keeping the grounds clean and tidy, weeding and sifting the gardens, putting down compost and preparing the gardens for planting.

In Hong Kong, ACE volunteers cleaned Shek O Beach on the regional day of service in 2013.

These examples represent 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.



*ACE employees volunteer their time to clean up local parks during IICF's annual week of giving.*

## ADDITIONAL INFORMATION & RESOURCES

### ACE Group

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[ACE Group Website: ACE and the Environment](#)

[ACE's CDP Responses and Scores \(free registration required\)](#)

[Protecting Against Environmental Risks in the Global Marketplace](#)

[M&A Risk Management: Global Environmental Liability](#)

### Supporting Partnerships

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[Business Roundtable](#)

[ClimateWise](#)

[Geneva Association](#)

[Insurance Information Institute](#)

[Insurance Institute for Business and Home Safety](#)

[Reinsurance Association of America](#)

### Selected Philanthropy Partners

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[The Conservation Fund](#)

[ShadeFund™](#)

[Bren School of Environmental Science & Management](#)

[American Forests' ReLeaf Program](#)

[Natuurmonumenten](#)

