

An aerial photograph of a dense, lush green forest. A light-colored, winding road or path cuts through the forest, starting from the top right and curving towards the bottom left. The trees are vibrant green and densely packed, creating a textured canopy. The overall scene is bright and natural.

# CHUBB®

## Chubb 2019 Environmental Report



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### About This Report

The Chubb Corporate Environmental Program is now in its thirteenth year. Chubb remains committed to communicating 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 Chubb

Chubb is the world's largest publicly traded property and casualty insurance company. With operations in 54 countries and territories, Chubb provides commercial and personal property and casualty insurance, personal accident and supplemental health insurance, reinsurance and life insurance to a diverse group of clients. As an underwriting company, we assess, assume and manage risk with insight and discipline. We service and pay our claims fairly and promptly. The company is also defined by its extensive product and service offerings, broad distribution capabilities, exceptional financial strength and local operations globally. Parent company Chubb Limited is listed on the New York Stock Exchange (NYSE: CB) and is a component of the S&P 500 index. Chubb maintains executive offices in Zurich, New York, London, Paris and other locations, and employs more than 30,000 people worldwide. Additional information can be found at: [chubb.com](http://chubb.com).

This report was updated in July 2019 to reflect the company's policy on coal underwriting and investment. ©2019 Chubb.

# Chubb Environmental Report 2019

Chubb recognizes the reality of climate change and the substantial impact of human activity on our planet. Our environmental initiatives – in our business, our operations and our philanthropy – reflect our desire to do our part as a steward of the Earth.

# Chubb and the Environment – At a Glance

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.

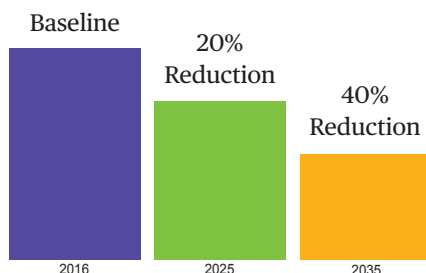
With operations in 54 countries and territories, Chubb's business and operating models are exposed to the full impact of global climate change. At Chubb, we recognize that a changing climate affects everyone – our customers, employees, shareholders, business partners and the people who live and work in the communities we serve.

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

## Chubb's Science-Based GHG Emissions Reduction Goals

In 2019, Chubb announced a new companywide goal to reduce its GHG emissions on an absolute basis.

- Reduce emissions 20% by 2025
- Reduce emissions 40% by 2035



## Products & Services

As a global insurance company, assessing risk is a core competency and strength for Chubb. The company is a leader in developing insurance products and risk management services that facilitate market-based solutions to environmental and climate-related issues. Today, Chubb is among the world's largest global underwriters of environmental liabilities and pollution risks. In the U.S., Chubb is also a leader in meeting the insurance and risk engineering needs of clean technology companies, including renewable and alternative energy providers, manufacturers and software and hardware companies.

Chubb's solutions also include coverages for premise-based exposures, contractors' and project pollution liability, and environmental cleanup projects, as well as "green building" consulting services and a property policy that enables greener rebuilding after a loss. In addition, Chubb provides

incentives and discounts to certain property customers for environmentally friendly behaviors.

To do its part to help transition to a low-carbon economy, Chubb has adopted a new policy concerning coal-related underwriting and investment. More information on Chubb's Coal Policy can be found on Chubb's Citizenship website.

## Operations

The company has had a formal program to measure, record and reduce greenhouse gas (GHG) emissions in its own operations since 2006. In 2019, Chubb announced a new companywide goal to reduce its global greenhouse gas (GHG) emissions 20% on an absolute basis by 2025. The company also established a long-term goal to reduce absolute GHG emissions 40% by 2035. Both goals use 2016 emissions levels as the baseline. Chubb's goals are aligned with the two-degree Celsius target outlined in the Paris Climate Agreement, as well as the quantitatively supported science-based standards methodology of the United Nations Environmental Program. The company will continue to deploy successful approaches for GHG emissions reduction, including installing energy efficient lighting and equipment and more efficient use of office space.

## Philanthropy

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

Chubb supports communities around the world in which our employees live and work through our established philanthropic entities and via company-sponsored volunteer initiatives. For example, grants from the Chubb Charitable Foundation have helped preserve sensitive lands and habitats across the U.S. and around the world, finance green business entrepreneurs, and support educational programs that promote a healthy and sustainable environment.



# Recent Milestones

**21%**

The reduction from 2015 to 2018 in absolute global GHG emissions

**40%**

Long-term companywide goal to reduce global GHG emissions by 2035

**20%**

Companywide goal to reduce global GHG emissions on an absolute basis by 2025

**B**

The company's 2018 score on the CDP's climate change program ranking

**53+**

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

**180,000**

Number of trees the company has planted through its Environmental Risk Business's sponsorship of American Forests' ReLeaf Program since 2007



**370,000**

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

**12**

Number of years of Chubb's Corporate Environmental Program



**>30%**

The key revenue threshold of Chubb's new coal underwriting and investment policy.



# Perspective on Climate Change Risk



At Chubb, our business involves providing clients with insurance and reinsurance protection from the impact of natural catastrophes, including weather events that are more frequent or severe. Chubb recognizes that a changing climate affects everyone – customers, employees, shareholders, business partners and the communities we serve.

In his 2018 letter to shareholders, Evan Greenberg, Chubb Chairman and CEO, wrote, “Climate change is a reality and its effects can be seen by an increased frequency and severity of natural catastrophes. Climate change is contributing to higher sea surface temperatures, rising sea levels and an increasing trend in extreme weather events, including floods, droughts, winter storms, heat waves, wildfires and hurricane intensity.”

Mr. Greenberg also described how such extreme weather events are colliding with the realities of urbanization, including suburban sprawl and the desire of people to live near water and wilderness, as well as government policies that insulate people and society from the costs of their

decisions. “Given the long-term threat and the short-term nature of politics, the failure of policymakers to address climate change, including these issues and the costs of living in or near high-risk areas, is an existential threat,” he wrote.

In 2017, natural catastrophe losses exceeded \$135 billion and were again elevated in 2018. According to a Swiss Re study, global insured losses for catastrophes in 2018 were \$85 billion, the fourth highest on record and higher than the annual average of the previous 10 years.<sup>1</sup> The back-to-back losses from 2017 and 2018 events highlight the increasing vulnerability of the ever-growing concentration of humans and property values on coastlines and in the urban-wildlife interface. The very presence of human and property assets in areas such as these means extreme weather conditions can quickly turn into catastrophe events in terms of losses inflicted.

<sup>1</sup> Swiss Re Sigma Study No 2/2019, Natural catastrophes and man-made disasters in 2018: secondary perils on the front lines



## Global insured losses from catastrophes in 2018 were \$85 billion, the fourth highest on record

Examples of devastating natural catastrophe events in 2018 include hurricanes Michael and Florence in the U.S.; typhoons Jebi and Trami in Japan; typhoon Mangkhut that struck Guam, the Philippines and South China; heat waves, droughts and wildfires in Europe and California; floods in Japan and India; earthquakes in Japan, Indonesia and Papua New Guinea; and volcano eruptions in Hawaii. A wildfire to the northeast of San Francisco, known as the Camp Fire, which burned in 2018, is now the deadliest fire in over a century for the U.S. and, in terms of property loss, the most destructive on record for California.

Global sea levels are also rising at an accelerated rate and, as the National Aeronautics and Space Administration has reported, global sea levels rose about eight inches in the last century. The rate in the last two decades, however, is nearly double that of the last century and is accelerating slightly every year.<sup>2</sup> The long-term warming trend has continued in 2018, with the average global temperature set to be the fourth highest on record. The 20 warmest years on record have occurred in the past 22 years, with the top four in the past four years, according to the World Meteorological Organization (WMO).<sup>3</sup>

The impact of global climate change extends beyond natural disasters and weather events in ways that are a direct threat to human health. For example, the World Health Organization's February 2018 Fact Sheet on Climate Change and Health notes that between 2030 and 2050, climate change is expected to cause approximately 250,000 additional deaths per year from malnutrition, malaria, diarrhea and heat stress.

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

As a leading insurer, Chubb continues to implement innovative ways to engage with its policyholders and other constituencies in managing climate change risk. These include:

- Advising policyholders of changing risk profiles associated with climate change
- 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
- Providing risk engineering services to help clients mitigate supply chain and global operations risks from exposures related to a changing climate
- 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
- Providing support through the Chubb Charitable Foundation to The Nature Conservancy for a wetlands restoration and resilience project in Miami-Dade County designed to serve as a model to be replicated in other urban coastal areas
- Bringing our expertise and capacity to help solve the growing flood exposure problem by launching a flood center of excellence and beginning to offer greater flood protection to businesses and consumers

<sup>2</sup> R. S. Nerem, B. D. Beckley, J. T. Fasullo, B. D. Hamlington, D. Masters and G. T. Mitchum. Climate-change-driven accelerated sea-level rise detected in the altimeter era. PNAS, 2018 DOI: 10.1073/pnas.1717312115

<sup>3</sup> World Meteorological Organization, Provisional Statement on the State of the Global Climate in 2018, November 29, 2018

# Managing Risk at Chubb

We recognize that climate change and weather patterns are integral to our underwriting process.

Managing risk is core to Chubb. Standard & Poor's rating of Chubb's enterprise risk management process as "Strong" in its June 2018 ERM rating report places the company among the top 20% of North American and Bermuda insurers.

Our approach to risk management is to identify all known and emerging risks that could have an impact on overall capital levels and financial results. Regarding the potential effects of catastrophe losses, we closely monitor our catastrophe risk accumulations around the world. We recognize that climate change and weather patterns are integral to our underwriting process and we continually adjust our process to address these changes.

Because the potential physical effects of climate change present a significant risk to the company, they have been integrated into Chubb's overall risk management process. Chubb's Nominating and Governance charter of the Chubb Limited Board of Directors has been amended to incorporate oversight of the company's environmental, social and governance (ESG) activities, including climate control change. In addition, Chubb continually assesses the potential business impact of the changing climate and, if appropriate, develops new procedures, products and/or services. New offerings could be in the form of products, entry into industry segments, risk engineering services or claims services.

## Modeling

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Chubb is a leading proponent and user of catastrophe models to quantify natural catastrophe risk for product pricing, risk management, capital allocation and to simulate and estimate hurricane losses. Chubb uses models to aggregate and closely monitor natural catastrophe exposures across its global 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.

Modeling is a valuable tool in identifying possible market opportunities. At Chubb, risk management modeling and underwriting practices have been adapted to the developing risk exposures attributed to climate change. Since the earth's climate appears to be changing in ways inconsistent with the historical record upon which catastrophe models draw data, Chubb has adopted a shorter-term view of event frequency that is higher than the long-term historical frequency.

Chubb invests continually to upgrade and refine its risk management tools for catastrophes such as floods and hurricanes. Through the use of catastrophe models, Chubb manages severe weather risk to indirect client exposures throughout the world. Special emphasis is given to areas where Chubb has significant exposures and the inherent risk from extreme weather events – such as tropical cyclone and other windstorms – is deemed to be high, such as the coastal U.S., Southeast Asia and U.K./Europe.

To aid in prioritizing management focus on extreme weather events, each peril region is classified as either Tier 1, 2 or 3 according to the exposures and risk combination present. Tier 1 regions are the highest priority areas for the company as they present the greatest risk profile and are the most carefully managed. Tier 2 and 3 regions are also closely managed at the regional and business unit level.

In his most recent letter to shareholders, Mr. Greenberg noted, "What were traditionally non-modeled risks can now be better analyzed, but flood models, for instance, are more advanced than those for wildfire, which remain relatively



Mr. Greenberg noted, “What were traditionally non-modeled risks can now be better analyzed, but flood models, for instance, are more advanced than those for wildfire, which remain relatively crude. We also recognize that no matter how good, there is still much basis risk in our conclusions.”



crude. We also recognize that no matter how good, there is still much basis risk in our conclusions. However, keep in mind that natural catastrophes are a short-tail risk, so losses are understood relatively quickly, and we can in most cases react to what we observe.”

The lessons learned from such events – new assessments of building performance and improved understanding of how a convergence of conditions can increase losses in a severe catastrophe – enable us to incorporate the latest knowledge in our modeled loss estimates.

Chubb accounts for the potential impact of catastrophe and climate risks on the company’s own facilities and operations. Direct risk to Chubb’s business operations exists if such weather events occur where Chubb has offices. Severe weather events have tested Chubb’s business continuity program and operations have functioned effectively. Chubb’s risk analysis ranges from the known (based on definitive historical loss experience) to the hypothetical (based on a probable maximum loss (PML) calculation).

## Pricing

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Chubb 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). Chubb’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. Chubb 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 Chubb to continue to

Chubb is committed to developing insurance products and risk management services that facilitate market-based solutions to current and pending environmental and climate-related issues.



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 and businesses that are encouraged to increase exposures.

#### **Coal-Related Underwriting and Investment**

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In 2019, Chubb adopted a new policy concerning coal-related underwriting and investment. With the new policy, the company will no longer underwrite the construction and operation of new coal-fired plants or new risks for companies that generate more than 30% of their revenues from coal mining or energy production from coal. Insurance coverage for existing coal-plant risks that exceed this threshold will be phased out by 2022,

and for utilities beginning in 2022. In addition, Chubb will not make new debt or equity investments in companies that generate more than 30% of revenues from thermal coal mining or energy production from coal.

#### **Reinsurance**

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We mitigate our exposure to climate change risk by actively hedging catastrophe risk in both the reinsurance and capital markets. 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.



# Our Products & Services

Chubb is committed to developing insurance products and risk management services that facilitate market-based solutions to current and pending environmental and climate-related issues. Chubb is one of 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. In the U.S., we are a leader in meeting the insurance and risk engineering needs of clean technology companies, including renewable and alternative energy providers, manufacturers and software and hardware companies.

Chubb's products and services, which fall primarily into the areas of environmental risk, renewable energy coverage, Clean Tech 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:

- Environmental professional indemnity
- Environmental risk products
- Global weather insurance

- Green property insurance
- Political risk and trade credit
- Renewable energy construction, technical lines
- Power production property insurance
- Clean tech

Chubb's Environmental Risk business has issued policies in more than 53 countries and territories, and continues to launch products that are in demand globally. One example is a suite of coverages offered through the company's specialized clean tech industry insurance program. The Clean Tech Sustainability Suite offers tech firms involved in research and development (R&D) protection for property and business income.

In addition, the success of the company's green consulting services offered to insureds within certain policies has led to an expansion of these environmental services to other coverages and products within Chubb's portfolio. In order to effectively manage growing multinational demand for these products, Chubb continues to establish a flexible, complex and unified set of standards for global market opportunities.



## Environmental Liability Insurance

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Chubb is 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 has increased, 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. Chubb monitors more than 3,400 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.

Chubb offers Global Premises Pollution Liability (PPL), Contractors’ Pollution Liability (CPL) and Underground Storage Tank (UST) policies for U.S. multinational corporations doing business at home and abroad. The CPL and PPL programs combine insurance with technical support to help insureds reduce their environmental exposure. Also, Chubb’s Hazardous Material/Waste Transportation product line offers safety and claims services for hazardous materials and hazardous waste transporters.

Another innovative product is Chubb’s Environmental Incident Alert program, which facilitates more rapid dispatching of incident-response contractors as well as real-time monitoring of clean-up costs. The program offers 24/7 incident reporting via phone, web or mobile device and has demonstrated it can both reduce environmental damage and lower claim costs by as much as 20% to 25%.

Chubb’s product line also includes 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 offers environmental products in most markets. Among the broad range of bundled/unbundled environmental engineering and risk minimization services available for Chubb Environmental Risk insureds are:

- 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.)
- Storage tank operator training

Chubb 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. Chubb also periodically produces and sponsors whitepapers that provide perspectives to businesses on emerging risks and insights into how to manage these risks to avoid future environmental exposures, such as *Environmental Exposures Heighten Risks for the Healthcare Industry*.

## Renewable Energy Initiative

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The renewable energy sector is another major product area for Chubb, 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, fuel cell, methane extraction facilities, solar, wind, geothermal, hydro energy and manufacturers of solar panels, wind turbines and wind turbine components. Chubb addresses risks that occur in the two main phases of a typical renewable energy project – construction and operation. Construction risks range from delay in startup to public or employer liability, whereas operation risks range from business interruption to premises pollution.

Chubb partners with a variety of companies to provide risk engineering expertise in the following capabilities: business continuity assessment, equipment breakdown inspections, maintenance program reviews, pollution risk assessments, and many others.





## Clean Tech

Chubb's Clean Tech business provides bespoke insurance solutions to companies that are creating new technology and driving innovation. This global business has dedicated underwriters, risk engineers and claims examiners who specialize in handling clean technology clients.

Clean Tech clients face differing exposures through the development, or lifecycle, of their business. Chubb's insurance solutions cover companies as they move from start-up, including research and development, to pilot projects to commercialization. The exposures faced by these clients stem from complex supply chains, the globalization of their product, intellectual property rights and environmental liability. Our risk engineers are able to provide clients with risk management advice in all of these areas.

Any company involved in the following activities would fall within our Clean Tech business:

- Renewable and alternative energy producers
- Software and hardware companies, including energy efficiency and smart grid technologies
- Emerging companies, including those in R&D stage with a focus on biorenewables
- Manufacturers and service providers, especially component parts manufacturers or distributors supporting clean technologies, renewable energy producers and clean transportation

Recent clients include a company using recycled CO<sub>2</sub> to improve the manufacturing of products as well as an AgTech company providing ag-growers data driven solutions to increase yield while reducing water and fertilizer use.

Chubb has joined clean tech associations and sponsored events to enable direct access to the local clean tech ecosystem. Such engagement enhances product development because we can translate our understanding of client exposures into new, bespoke coverage. This approach ensures that our insurance solutions tailored for this fast-paced, innovative segment remain relevant.

We have recently entered into the following associations and sponsorships:

- Global Cleantech 100 List
- Cleantech Forum San Francisco
- Colorado Cleantech Industries Association
- Cleantech San Diego
- Sustain OC
- Sponsor of Greentown Labs, Boston

Chubb 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.



### Green Building Restoration

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Chubb 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. Chubb's 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 encourage actions from Chubb's customers that help to reduce GHG emissions.

### Consulting Services

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Chubb clients also receive a full complement of traditional environmental consulting in the following categories: wastewater management, waste management, air quality management, emergency preparedness and response, reporting, environmental management systems including ISO 14001, as well as sustainability and environmental impact analysis and reduction. Chubb provides services such as industrial hygiene assessments; regulated and hazardous materials management and remediation oversight; environmental due diligence; and Leadership in Energy and Environmental Design (LEED) and regulatory compliance consultation. Customized Environmental Protection Agency (EPA) and Occupational Safety and Health Administration (OSHA) compliance training programs and services are also provided. Programs in asbestos, lead-based paint and microbial management, and water intrusion prevention are also offered. Accredited compliance staff are also available to augment clients' environmental, health,

and safety personnel at their locations as necessary to meet their health, safety and the environment (HSE) objectives. Other services offered by our personal lines unit includes wildfire defense services and infrared camera scans of clients' homes to identify areas for improved energy efficiency.

### Other Coverages

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Coverages such as property catastrophe, crop and business interruption insurance are significant businesses for Chubb, 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, Chubb is one of the leading crop insurers in the U.S. through the company's Rain and Hail subsidiary. Chubb Agribusiness insures companies that manufacture, process and distribute agricultural products. In addition, our Global Weather coverages help clients insure against unpredictable weather conditions, protecting their assets around the world against damage or loss due to adverse weather conditions.

## Our Operations

By 2035, the impact of the company's continued focus on energy efficient operation programs is expected to result in the emissions reduction of nearly 45,000 metric tons of CO<sub>2</sub> equivalent per year.

One of the primary objectives of Chubb's Corporate Environmental Program is to measure, record and reduce GHG emissions. As an insurance company, Chubb has a modest environmental footprint. The company's emissions are third-party verified to ISO 14064-3 standards. Chubb 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. For 2018, the company earned a score of B on the CDP's climate change program ranking.

However, we aim to reduce our mark on the environment even further. In 2019, Chubb announced a new companywide goal to reduce its global GHG emissions 20% on an absolute basis by 2025. The company also established a long-term goal to reduce absolute GHG emissions 40% by 2035. Both goals use 2016 emissions levels as the baseline. Chubb's goals are aligned with the two-degree Celsius target outlined in the Paris Climate Agreement, as well as the quantitatively supported science-based standards methodology of the United Nations Environmental Program.

This is the third GHG emissions reduction commitment the company has undertaken since launching its corporate environmental program in 2006, and the first that adheres to science-based standards. This is also the first companywide goal announced since ACE Limited acquired The Chubb Corporation and adopted the Chubb name globally in 2016.

From 2006 to 2012, the company reduced GHG emissions nearly 27% per employee, substantially exceeding its original target of 8% per employee. A new goal was set in 2014. From 2015 to 2018, a period that included the acquisition, Chubb reduced its absolute global GHG emissions by 21%.

By 2035, the impact of the company's continued focus on energy efficient operation programs is expected to result in the emissions reduction of nearly 45,000 metric tons of CO<sub>2</sub> equivalent per year.

Achieving these goals will be accomplished through a combination of real estate portfolio optimization, energy efficiency projects and the purchase of renewable electricity. Chubb has worked to make reductions within its global operations, with a focus on reducing energy consumption at the facility level, primarily in owned buildings and larger, long-term leased spaces. This includes efforts to reduce the direct and indirect GHG emissions generated from heating, cooling and lighting in offices and from company owned or leased vehicles, as well as the reduction, reuse or recycling of resources.

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), and continues to use methodology based on the World Resources Institute and the World Business Council for Sustainable Development (WRI/WBCSD) GHG Protocol for data collection and analysis.

In addition, Chubb deployed natural renewable energy as its main source of energy for its real estate portfolio in the U.K. In 2018, the natural renewable energy mix consisted of 50% wind, 40% solar and 10% hydro (water). Through the deployment of natural renewable energy, Chubb's GHG emissions have been reduced through the avoidance of fossil-fuel based energy consumption. This reduction in emissions is equivalent to 2,795 tons of CO<sub>2</sub>e.



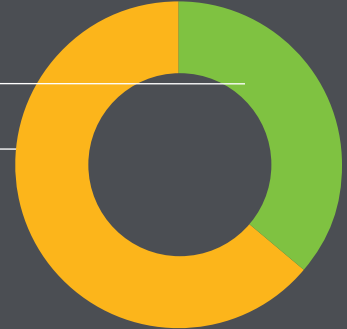
In Mexico, for example, Chubb has implemented GHG reduction initiatives. In 2015, Chubb performed an energy audit on the three offices that consume about 30% of the total energy consumption in Chubb Mexico operations. For this group, Chubb has been working on low-cost energy consumption reduction strategies for four years, such as controlling A/C equipment schedules and installing energy-efficient lighting. In 2017 and 2018, Chubb added 16 more offices to the project, representing 89% of electricity for Chubb's Mexico operations. As a result, total electricity consumption for Chubb's Mexico operations has decreased 10% since 2015.

## 2018 GHG Emissions Profile

### Profile by Scope

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

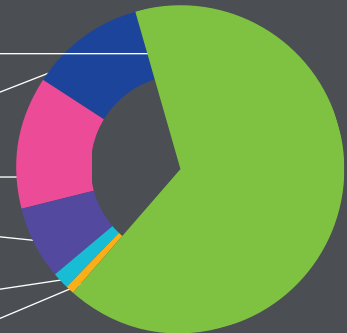
Scope 1 (Indirect)	26,048
Scope 2 (Direct)	45,440



### Profile by Region – Scope 1 and 2

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

North America*	49,976
Asia Pacific	8,498
Latin America	10,040
Europe	5,518
Eurasia & Africa	1,248
Japan	597



\* Includes corporate jet usage

## Additional Environmental Metrics

	2018	2017	2016	2015
<b>Energy (MWH)</b>	218,536	245,138	250,178	245,846
<b>Direct</b>	101,188	107,261	104,570	100,317
<b>Indirect</b>	116,649	137,877	145,608	145,529
<b>Renewable</b>	9,872	10,126	4,984	0
<b>Waste (Tonnage)</b>	4,100	4,600	5,100	5,000
<b>Water (Million m<sup>3</sup>)</b>	9.35	0.344473	0.340687	0.340687
<b>US/Bermuda Business Travel (KM)</b>	143,805,796	139,466,178	141,111,852	110,274,492

## 2018 GHG Inventory Data

Absolute Emissions (CO<sub>2</sub> - eq. (metric tons))



From 2015 to 2018  
Chubb reduced  
its absolute GHG  
emissions by 21%

In 2017, Chubb completed an energy audit for one of the company's largest facilities located in Whitehouse Station, N.J. As a result, the facility was retrofitted with LED lighting. Further energy saving initiatives will be implemented where feasible in order to further reduce GHG emissions.

Emissions from mobile combustion – which account for 29% of the company's GHG inventory – include our global fleet of vehicles and aircraft. Chubb 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 Chubb'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.

Chubb 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.

One of our largest buildings in North America, in Philadelphia, earned LEED Silver certification in 2009, becoming the city's first LEED-certified existing building. Over the next five years, the company increased the amount of energy efficient lighting (raising the Energy Star score from 73 to 84), supported alternative commuting methods (public transportation, walking, biking, etc.) and implemented other green building initiatives at the location. In November 2014, the Philadelphia building earned LEED® Gold recertification. The Philadelphia building will go through the LEED recertification process again in 2019. Additionally, the Chubb building in Bermuda is the first on the island to be twice recertified as LEED® Gold by the U.S. Green Building Council. The Chubb building first received LEED® Gold certification under the Existing Buildings Operations and Maintenance rating system in 2011. In 2017, the building was recertified when Chubb became one of the first companies in North America to use the LEED Dynamic Plaque™ to manage the building's environmental performance. With its latest recertification in 2019, the Chubb Building received a LEED® Gold score of 72, up from 70 two years ago.

Dynamic Plaque is a building performance and monitoring tool. It is continually scoring the building based on five different categories: energy, water, waste, transportation and human experience. Because the building is continuously being scored on a one-to-100 scale, the LEED Dynamic Plaque™ encourages stakeholders to make meaningful improvements to the building based on observations gained from their score.



### **Employee Engagement**

Our employees globally play a role in supporting the company's environmental commitment. In 2019, Chubb is launching the Chubb Environmental Network (CEN), which will be comprised of volunteer ambassadors in each office who will locally help Chubb achieve its environmental goals and act as a resource for employees across the globe.

The CEN will have three goals:

1. Set office-specific goals for environmental sustainability. If not yet achieved in an office, the goals will encompass:
  - Establishing a recycling program and working toward 100% adoption
  - Discontinuing use of disposable plastic water bottles
  - Removing all disposable Styrofoam products
  - Purchasing only sustainable copy paper
  - Reducing paper consumption by 5% on a prior-year basis
  - If the initial goals have been achieved, the local CEN will choose additional goals to work toward

2. Communicate Chubb's environmental commitments, past and current initiatives, and success stories to Chubb employees, external brokers and insureds
3. Be thought leaders by reacting and responding to environmental challenges around the globe. Facilitating discussion and information-sharing among employees in different divisions and locations is an important component of this initiative.

The CEN is an expansion of local employee efforts that have existed for many years. Many employees have volunteered to undertake environmental projects on a local scale. For example, in Philadelphia, the local Chubb Green committee implemented a composting program in the building's cafeteria. Due in part to this initiative, Chubb diverts 60% of all waste in the building from a landfill. In Bermuda, local teams created a Chubb vegetable garden, and the produce is served in the building's cafeteria.



# Our Philanthropy

The environment is a priority in Chubb's corporate philanthropy. The Chubb Charitable Foundation and the company's employees support a wide range of environmental philanthropies and volunteer activities in local communities around the world. Through these initiatives, Chubb promotes a healthy and sustainable planet.

Chubb Charitable Foundation grants have helped preserve sensitive lands and habitats, finance green business entrepreneurs, and support educational programs that promote a healthy and sustainable environment in the U.S. and around the world.

Since 2005, the company has supported The Conservation Fund, which has protected over 8 million acres across the U.S. In recent years, the Chubb Charitable Foundation has provided more than \$1 million to The Conservation Fund initiatives that have protected nearly 370,000 acres of threatened lands and waters. Chubb's support allows the Fund to protect top-priority conservation lands through the Chubb Land Legacy Revolving Fund, which has protected habitats valued at more than \$228.5 million.

In 2018, the Chubb Charitable Foundation expanded its partnership with The Nature Conservancy to work together in Miami to reduce the risk from storm impacts and rising sea levels along one of the country's most vulnerable shorelines. The collaboration, funded by a \$1 million grant from the foundation, includes a restoration and resilience project in Miami-Dade County to demonstrate the flood protection benefits of nature-based solutions. The project is designed to increase protection from flooding and serve as a model that can be replicated in other coastal cities in the U.S. and globally. The Foundation's support of the Nature Conservancy has also provided the continuation and expansion of coral reef restoration in the Mexican portion of the Mesoamerican Reef. This effort resulted in transplanting 10,000

new coral colonies and establishing new restoration sites and coral nurseries. The Nature Conservancy works to protect the lands and waters on which all life depends in 72 countries around the world.

The Bermuda National Trust plays a leading role in environmental stewardship in Bermuda. Established in 1970, the Trust preserves Bermuda's natural, architectural and historic treasures and encourages public appreciation of them. In the Trust's care are 82 properties, covering about 280 acres of land. These properties represent much of the best of Bermuda's heritage, and include historical and architecturally significant buildings, nature reserves, islands, gardens, cemeteries, farmland and coastline. Additionally, the Trust operates three museums that contain a priceless collection of Bermudian heritage. For over 20 years, Chubb has supported the Trust with more than \$450,000 in grants to aid in their mission of education and preservation.

Chubb's Environmental Risk business unit continued to contribute to The American ReLeaf Program of American Forests, the oldest national nonprofit conservation organization in the U.S. The program implements science-based restoration efforts to ensure the long-term health and resiliency of our forests. In 2018, Chubb pledged its support to sponsor the planting of 33,000 trees to support the American Forests Global ReLeaf® program. Chubb's sponsorship is the largest by the company since it began supporting the cause in 2008. Chubb's pledge represents one tree for each new environmental insurance policy written globally in 2018.

Chubb's contribution will support planting projects in native forest landscapes across North America. Specific project landscapes include California, Michigan and Ontario. American Forests has planted more than 60 million trees since 1990 – in all 50 states and in nearly 50 countries worldwide.

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#### Volunteer Efforts

As a global enterprise, Chubb organizes employee volunteer projects regionally with an environmental focus. For example, in the U.S., as part of the Insurance Industry Charitable Foundation's Week of Service, 62 Chubb employees participated in an Apple Gleaning project for America's Grow-A-Row. Employees gleaned, or salvaged, apples that would otherwise go to waste after the harvest is collected and picked from the trees. Chubb aided in the rescuing of over 7,000 pounds of apples, which equates to over 28,000 servings of fresh produce that will go out to those in need.

In Mexico, Chubb employees helped to provide eco-tech training to underserved communities in Mexico City, Monterrey and Guadalajara where residents learned how to plant, harvest and dehydrate vegetables as a cost-efficient way to produce their food through simple eco-technology using solar power.

In New Zealand, employees worked side-by-side with at-risk students and their teachers to prepare the school for its transition to an Enviroschool. The Enviroschool program operates in over 1,000 schools across New Zealand, and encourages teachers and students to create and maintain healthy

and sustainable communities and environments. Students, teachers and Chubb employees cleared overgrown grass, weeded gardens, cleaned out a creek, pruned and planted vegetation and constructed flat-pack furniture.

These are just a few of Chubb's many environmentally focused volunteer projects. Other ongoing projects around the world continue to demonstrate Chubb's community and philanthropic dedication to critical environmental issues.

# Our Engagement

Chubb is a member of the United Nations Global Compact, the largest corporate sustainability project in the world. Chubb has formally committed to making the Compact's environmental principles part of the culture and day-to day operations of the company.



Membership in the Geneva Association an international insurance think tank representing 90 global insurance organizations, whose Climate Risk and Insurance project has been outspoken on climate change issues. Chubb's Chairman and CEO is among the 68 chief executives of major international insurers who have 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 2018, the company earned an B on CDP's climate change program ranking.



Participation in ClimateWise 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 collective actions that will lead to the reduction of greenhouse gas emissions on a global basis.



Membership on the Reinsurance Association of America's (RAA) Extreme Events Committee, which focuses on catastrophe modeling improvements to reflect climate change. Chubb supported the RAA's call for reform of the National Flood Insurance Program (NFIP) in the U.S. Congress that would ensure that program rates are actuarially sound and encourage risk mitigation.





Chubb is a member of SmarterSafer.org, a coalition that includes environmental advocacy groups such as Ceres, Environmental Defense Fund, National Wildlife Federation and the Sierra Club, founded to promote and support disaster safety and preparedness measures that are consistent with sound environmental stewardship of our fragile coastal ecosystems.

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Membership to the Insurance Information Institute (I.I.I.), an association that improves public understanding of insurance. The organization, supported by industry members, is a primary source of information, analysis and referral concerning insurance, including the potential threats climate change poses to the global economy, ecology, and human health and well-being.

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## **Additional Information & Resources**

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### **Chubb Group**

[Chubb Website: Citizenship](#)

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

[Responsible Underwriting at Chubb](#)

[Chubb's Coal Policy](#)

### **Supporting Partnerships**

[Business Roundtable](#)

[ClimateWise](#)

[Geneva Association](#)

[Insurance Information Institute](#)

[Reinsurance Association of America](#)

[UN Global Compact](#)

### **Selected Philanthropy Partners**

[The Conservation Fund](#)

[ShadeFund™](#)

[The Nature Conservancy](#)

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

[American Forests' ReLeaf Program](#)

# **Chubb. Insured.<sup>SM</sup>**

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