

# responding to climate change ▶

Climate change has been a priority for WWF for over 20 years, a period in which scientists, policy experts and conservationists have increasingly worked together to understand the causes and impacts of climate change and determine how to steer a path to both climate stability and protection of the world's natural resources. These have been perhaps the most important decades in what is now more than 100 years of the scientific community's study of the world's climate.

The timeline we present here puts our work in the context of the world's response to climate change since the late 1980s, showing key developments in climate science and policy, as well as some recent extreme weather events in the U.S. and around the world. In this timeline, you'll read about the work of international policy-making bodies, organizations of climate scientists and other experts, and U.S. government agencies. And you will see how, over the decades, WWF has worked to connect the changes in our global climate to the needs and challenges of conserving the world's biodiversity.

# A 20-Year View of the World's Response to Climate Change

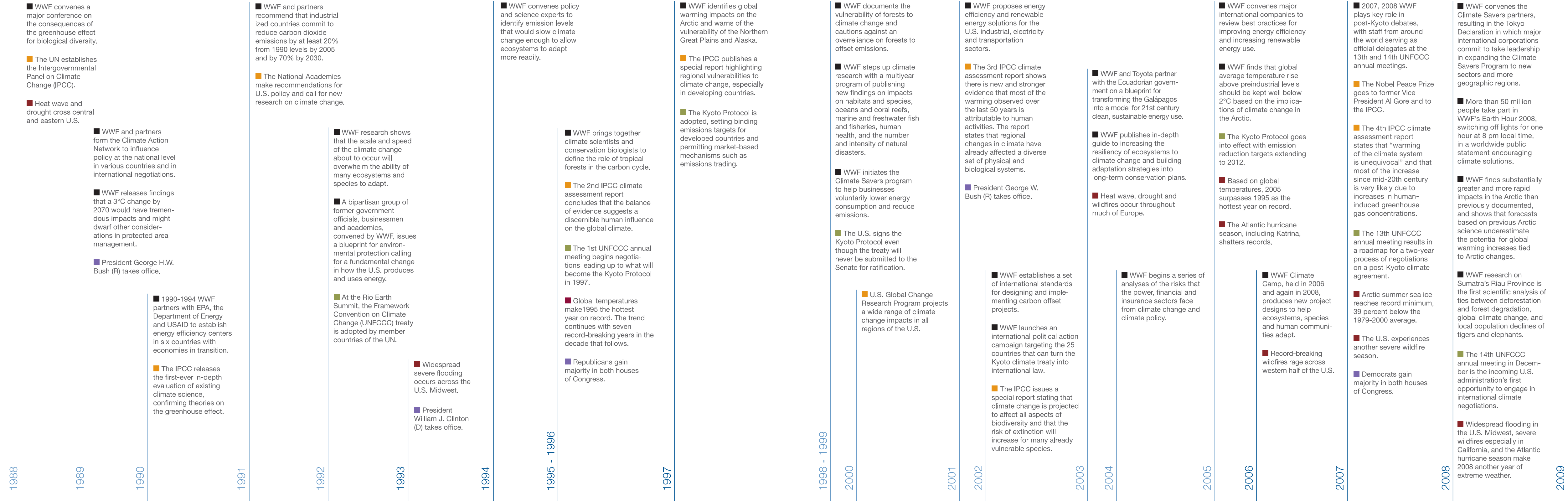
**KEY**

- WWF
- Climate Science
- Global Climate Policy
- Extreme Weather
- U.S. Government Leadership

**LEGEND**

**The UN Intergovernmental Panel on Climate Change (IPCC)** is the world's leading authority on climate change. It provides decision makers and others with independent and objective assessments of existing climate change causes, impacts and responses.

**The UN Framework Convention on Climate Change (UNFCCC)** is a treaty committing countries to cooperate in reducing greenhouse gas emissions and adapting to climate change. Parties to the treaty are known collectively as the Conference of the Parties (COP). Under the **Kyoto Protocol**, an optional agreement that supplements the UNFCCC, developed countries make binding commitments to reduce their emissions.



**Science Compels Concern.** Science advances and the world takes on the challenge of addressing climate change. WWF furthers knowledge about impacts on biodiversity, promotes energy efficiency and joins with others to influence national and international policy.

**International Debate Intensifies.** The UN creates a platform for international climate policy and in 1997 the Kyoto Protocol is adopted. It sets legally binding emissions reductions in developed countries, allows for market-based mechanisms such as emissions trading, and sets a timetable ending in 2012. WWF studies emissions levels, impacts on biodiversity and ecosystem vulnerability.

**Negotiations Reach a Result.** WWF advocates globally for the Kyoto Protocol, which goes into effect in 2005, without U.S. participation. In the meantime, business and industry make progress through voluntary emissions reductions. WWF develops standards for carbon credits, continues research on impacts and outlines approaches to adaptation.

**Pressure and Momentum Build.** With only six years remaining to meet targets under the Kyoto Protocol, pressure mounts on developed countries to slow the speed of climate change by reducing carbon emissions. WWF scales up climate adaptation work and partnerships with business and industry, raises public awareness worldwide, and provides research and recommendations for a post-2012 climate agreement.

■ WWF convenes a major conference on the consequences of the greenhouse effect for biological diversity.

■ The UN establishes the Intergovernmental Panel on Climate Change (IPCC).

■ Heat wave and drought cross central and eastern U.S.

■ WWF and partners form the Climate Action Network to influence policy at the national level in various countries and in international negotiations.

■ WWF releases findings that a 3°C change by 2070 would have tremendous impacts and might dwarf other considerations in protected area management.

■ President George H.W. Bush (R) takes office.

■ 1990-1994 WWF partners with EPA, the Department of Energy and USAID to establish energy efficiency centers in six countries with economies in transition.

■ The IPCC releases the first-ever in-depth evaluation of existing climate science, confirming theories on the greenhouse effect.

■ WWF and partners recommend that industrialized countries commit to reduce carbon dioxide emissions by at least 20% from 1990 levels by 2005 and by 70% by 2030.

■ The National Academies make recommendations for U.S. policy and call for new research on climate change.

■ WWF research shows that the scale and speed of the climate change about to occur will overwhelm the ability of many ecosystems and species to adapt.

■ A bipartisan group of former government officials, businessmen and academics, convened by WWF, issues a blueprint for environmental protection calling for a fundamental change in how the U.S. produces and uses energy.

■ At the Rio Earth Summit, the Framework Convention on Climate Change (UNFCCC) treaty is adopted by member countries of the UN.

■ Widespread severe flooding occurs across the U.S. Midwest.

■ President William J. Clinton (D) takes office.

■ WWF convenes policy and science experts to identify emission levels that would slow climate change enough to allow ecosystems to adapt more readily.

■ WWF identifies global warming impacts on the Arctic and warns of the vulnerability of the Northern Great Plains and Alaska.

■ The IPCC publishes a special report highlighting regional vulnerabilities to climate change, especially in developing countries.

■ The Kyoto Protocol is adopted, setting binding emissions targets for developed countries and permitting market-based mechanisms such as emissions trading.

■ WWF brings together climate scientists and conservation biologists to define the role of tropical forests in the carbon cycle.

■ The 2nd IPCC climate assessment report concludes that the balance of evidence suggests a discernible human influence on the global climate.

■ The 1st UNFCCC annual meeting begins negotiations leading up to what will become the Kyoto Protocol in 1997.

■ Global temperatures make 1995 the hottest year on record. The trend continues with seven record-breaking years in the decade that follows.

■ Republicans gain majority in both houses of Congress.

■ WWF documents the vulnerability of forests to climate change and cautions against an overreliance on forests to offset emissions.

■ WWF steps up climate research with a multiyear program of publishing new findings on impacts on habitats and species, oceans and coral reefs, marine and freshwater fish and fisheries, human health, and the number and intensity of natural disasters.

■ WWF initiates the Climate Savers program to help businesses voluntarily lower energy consumption and reduce emissions.

■ The U.S. signs the Kyoto Protocol even though the treaty will never be submitted to the Senate for ratification.

■ U.S. Global Change Research Program projects a wide range of climate change impacts in all regions of the U.S.

■ WWF proposes energy efficiency and renewable energy solutions for the U.S. industrial, electricity and transportation sectors.

■ The 3rd IPCC climate assessment report shows there is new and stronger evidence that most of the warming observed over the last 50 years is attributable to human activities. The report states that regional changes in climate have already affected a diverse set of physical and biological systems.

■ President George W. Bush (R) takes office.

■ WWF establishes a set of international standards for designing and implementing carbon offset projects.

■ WWF launches an international political action campaign targeting the 25 countries that can turn the Kyoto climate treaty into international law.

■ The IPCC issues a special report stating that climate change is projected to affect all aspects of biodiversity and that the risk of extinction will increase for many already vulnerable species.

■ WWF and Toyota partner with the Ecuadorian government on a blueprint for transforming the Galápagos into a model for 21st century clean, sustainable energy use.

■ WWF publishes in-depth guide to increasing the resiliency of ecosystems to climate change and building adaptation strategies into long-term conservation plans.

■ Heat wave, drought and wildfires occur throughout much of Europe.

■ WWF begins a series of analyses of the risks that the power, financial and insurance sectors face from climate change and climate policy.

■ WWF convenes major international companies to review best practices for improving energy efficiency and increasing renewable energy use.

■ WWF finds that global average temperature rise above preindustrial levels should be kept well below 2°C based on the implications of climate change in the Arctic.

■ The Kyoto Protocol goes into effect with emission reduction targets extending to 2012.

■ Based on global temperatures, 2005 surpasses 1995 as the hottest year on record.

■ The Atlantic hurricane season, including Katrina, shatters records.

■ WWF Climate Camp, held in 2006 and again in 2008, produces new project designs to help ecosystems, species and human communities adapt.

■ Record-breaking wildfires rage across western half of the U.S.

■ 2007, 2008 WWF plays key role in post-Kyoto debates, with staff from around the world serving as official delegates at the 13th and 14th UNFCCC annual meetings.

■ The Nobel Peace Prize goes to former Vice President Al Gore and to the IPCC.

■ The 4th IPCC climate assessment report states that "warming of the climate system is unequivocal" and that most of the increase since mid-20th century is very likely due to increases in human-induced greenhouse gas concentrations.

■ The 13th UNFCCC annual meeting results in a roadmap for a two-year process of negotiations on a post-Kyoto climate agreement.

■ Arctic summer sea ice reaches record minimum, 39 percent below the 1979-2000 average.

■ The U.S. experiences another severe wildfire season.

■ Democrats gain majority in both houses of Congress.

■ WWF convenes the Climate Savers partners, resulting in the Tokyo Declaration in which major international corporations commit to take leadership in expanding the Climate Savers Program to new sectors and more geographic regions.

■ More than 50 million people take part in WWF's Earth Hour 2008, switching off lights for one hour at 8 pm local time, in a worldwide public statement encouraging climate solutions.

■ WWF finds substantially greater and more rapid impacts in the Arctic than previously documented, and shows that forecasts based on previous Arctic science underestimate the potential for global warming increases tied to Arctic changes.

■ WWF research on Sumatra's Riau Province is the first scientific analysis of ties between deforestation and forest degradation, global climate change, and local population declines of tigers and elephants.

■ The 14th UNFCCC annual meeting in December is the incoming U.S. administration's first opportunity to engage in international climate negotiations.

■ Widespread flooding in the U.S. Midwest, severe wildfires especially in California, and the Atlantic hurricane season make 2008 another year of extreme weather.

■ WWF will evaluate U.S. technology and policy options for ambitious reductions in greenhouse gas emissions.

■ WWF will continue to influence the global climate policy debate as it progresses toward the post-Kyoto agreement, calling attention to the connection between forests and carbon emissions.

■ WWF and partners will conduct a groundbreaking scientific survey to collect precise and comprehensive measurements of the thickness of sea ice covering the Arctic Ocean.

■ At the 15th UNFCCC annual meeting in Copenhagen in December, countries party to the UN climate treaty will meet to finalize negotiations on an agreement to go into effect when the Kyoto Protocol expires in 2012.

■ The new U.S. administration will take office.