

# A HISTORIC COMMITMENT TO PROTECTING THE ENVIRONMENT AND REVERSING CLIMATE CHANGE

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President Obama believes that no challenge poses a greater threat to our children, our planet, and future generations than climate change — and that no other country on Earth is better equipped to lead the world towards a solution.

That's why under President Obama's leadership, the United States has done more to combat climate change than ever before.

#### CUT CARBON POLLUTION

- Established the first-ever national carbon pollution standards for power
  plants, the largest source of carbon pollution in our country. The Clean
  Power Plan gives states flexible, cost-effective tools to cut carbon
  pollution from these plants by 32% from 2005 levels by 2030 while
  preventing thousands of premature deaths and tens of thousands of
  childhood asthma attacks by reducing other power plant emissions
- Set standards to double the fuel economy of passenger vehicles by 2025 and established the first-ever fuel economy standards for medium and heavy-duty trucks
- Launched the American Business Act on Climate Pledge, with major
   American companies voicing support for a strong international climate
   agreement in Paris and making major new commitments to cut carbon
   pollution, boost clean energy, and increase low-carbon investment. As
   of the latest round of pledges in October, 81 businesses representing
   all 50 states, 9 million people, and a combined market capitalization of
   more than \$5 trillion committed to support the Paris climate process
- Developed and are implementing a strategy to reduce methane emissions, including new standards to cut emissions from oil and gas development as well as support for new technologies to detect and measure methane emissions

- Announced independent private-sector commitments and executive actions to drive down cumulative global consumption of hydrofluorocarbons (HFCs), a class of highly potent climate pollutants
- Reduced the Federal Government's greenhouse gas emissions by more than 17 percent and set a new aggressive goal of reducing federal emissions by 40 percent from 2008 levels by 2025
- Partnered with agricultural producers to cut emissions and increase carbon sequestration in the agricultural and forestry sectors through voluntary and incentive-based measures
- Improved monitoring and measurement of land-sector greenhouse gas emissions
- Announced support for strong international climate action by more than 300 colleges and universities, who signed the American Campus Act on Climate Pledge

#### CUTTING CARBON POLLUTION

- Made the largest investment in clean energy in American history, including support for thousands of wind and solar projects, loans for energy technology projects, investments in batteries and other advanced vehicle technologies, and support for large-scale carbon capture and utilization at coal-fired power plants. Resulting in dramatic increases in clean energy – with wind power tripling and solar power increasing by 30 times since the President took office.
- Created the Advanced Research Project Agency-Energy (ARPA-E) program, modeled on DARPA, to drive transformational energy research breakthroughs
- Approved the first-ever large-scale renewable energy projects on federal public lands

- Launched the Clean Energy Investment Initiative to expand privatesector investment in promising technologies aimed at reducing carbon pollution, including securing more than \$4 billion in private-sector commitments and executive actions to scale up investment in clean energy innovation
- Created a new initiative to increase access to solar energy for all Americans, in particular low- and moderate-income households, while expanding opportunities to build a more inclusive workforce
- Made \$1 billion in additional loan guarantee authority available and announced new guidelines for distributed energy projects utilizing innovative technologies, like rooftop solar panels with storage, and unlocked \$10 billion in current loan guarantees for these technologies
- Worked with low-income housing leaders and service providers to accelerate energy efficiency and renewable energy deployment in affordable housing programs
- Released the first installment of the Quadrennial Energy Review, which focuses on U.S. energy transmission, storage, and distribution to examine how to modernize our nation's energy infrastructure to promote economic competitiveness, energy security, and environmental responsibility
- Bolstered clean energy and energy efficiency projects in rural communities
- Expanded and modernized the electric grid through technology upgrades and permitting reforms
- Expanded renewable energy generation at U.S. military installations
- Invested in electric vehicle technology, including the development of cheaper and more efficient electric vehicle batteries
- Supported research and public-private partnerships to pursue new innovations in biofuel technologies

- Launched Solar Ready Vets at ten U.S. military bases to train veterans for jobs in the solar power industry
- Increased Federal investment in hydroelectric power, including the construction of the Red Rock Hydroelectric Plant in Iowa
- Recognized independent commitments by more than 350 leading companies and state and local leaders to deploy solar energy and increase energy efficiency across the nation

#### ■ LED GLOBAL EFFORTS ON CLIMATE CHANGE

- After years of hard work, and thanks to principled American leadership

   more than 190 countries came together to adopt the most ambitious climate change agreement in history. The Paris Agreement establishes a long term, durable global framework to set the world on a course reduce global greenhouse gas emissions. It ensures we can leave the planet a better place for our children and grandchildren
- Forged a historic joint announcement with China, under which the
  United States launched an ambitious but achievable U.S. target to
  reduce greenhouse gas emissions 26 to 28 percent below 2005 levels
  by 2025, while China announced for the first time its intent to peak
  carbon emissions around 2030 and increase the share of zero-carbon
  energy capacity to 20 percent
- Announced an additional Joint Presidential Statement on Climate Change with China's President Xi Jinping that further defined implementation of the countries' post-2020 emissions targets
- Launched Mission Innovation, a landmark commitment to dramatically accelerate public and private global clean energy innovation
- Fostered a commitment by more than 30 countries of the Organization for Economic Cooperation and Development (OECD) to dramatically reduce financing for coal-fired power plants overseas

- Announced joint measures with Brazil, in which both countries will
  increase the share of renewables beyond hydropower in their
  respective electricity generation mixes to 20 percent by 2030, and
  Brazil will restore and reforest 12 million hectares of forests roughly
  the size of Pennsylvania by 2030
- Announced bilateral cooperation with India to adopt and develop clean energy solutions to help transition toward a climate-resilient, lowcarbon economy
- Announced climate cooperation with Indonesia, including an unprecedented level of collaboration to conserve ecosystems, promote climate change adaptation, and foster the next generation of scientists. The partnerships represent approximately \$60 million under the Tropical Forest Conservation Act and \$50 million under the Millennium Challenge Corporation compact
- Along with Canada and Mexico, proposed an amendment to the Montreal Protocol to phase down production and consumption of hydrofluorocarbons (HFCs), potent greenhouse gases. At the Meeting of the Parties to the Montreal Protocol in November, Parties agreed to work together on an amendment in 2016. Phasing out these substances could avoid up to 0.5°C of warming by the end of the century
- Pledged \$3 billion to support the Green Climate Fund to reduce carbon
  pollution and strengthen resilience in developing countries, especially
  the poorest and most vulnerable. The GCF will play an important role
  in improving resilience to climate impacts and addressing the security
  risks associated with climate change.
- Committed to doubling the \$400 million per year of grant-based resources in global climate adaptation by 2020
- Joined ten other countries in announcing contributions totaling \$248
   million to the Least Developed Countries Fund (LDCF), which plays a

key role in addressing urgent and immediate adaptation needs of least developed countries

- Launched an international public-private partnership, the Climate
   Services for Resilient Development, to empower developing nations to
   boost their own climate resilience by providing needed climate services
   including actionable science, data, information, tools, and training.
- Announced a contribution of \$30 million to support insurance initiatives under the Pacific Catastrophic Risk Assessment and Financing Initiative, expand the Caribbean Catastrophic Risk Insurance Facility to cover Central American countries, and support the African Risk Capacity program
- Announced a new public-private partnership to ensure that the climate data and products made available by U.S. technical agencies are useful to developing countries
- Released high-resolution elevation data globally to help local communities mitigate the impacts of frequent river basin flooding, storm surges, and sea-level rise
- Launched negotiations on global free trade in environmental goods, which would help to lower the cost of clean energy and environmental technologies through tariff elimination
- Issued an executive order requiring that federal agencies screen their international development investments and programs for climate risks
- Launched a public-private partnership with Norway and the United Kingdom to reduce emissions from deforestation and forest deregulation

#### ■ REDUCED AIR AND WATER POLLUTION

 Established the first-ever national limits for mercury, arsenic, and other toxic air pollutants emitted by power plants

- Set standards to limit mercury and other pollutants from the largest sources of industrial air pollution, including cement plants, industrial boilers, and waste incinerators
- Established new standards for cleaner gasoline and vehicles to reduce harmful air pollution
- Set tighter standards for ozone pollution that will deliver 2-4 dollars in benefits for every dollar spent—reducing premature deaths, childhood asthma attacks, and cases of acute bronchitis among children
- Updated drinking water standards, protected drinking water sources, and modernized the tools available to communities to meet their clean water requirements, while providing affordable clean water services in rural communities
- Partnered with states, tribes, local governments, and private stakeholders on innovative approaches to restore urban waters, promote sustainable water supplies, and develop new incentives for farmers to protect clean water

### **CUT ENERGY WASTE**

- Established the Better Buildings Challenge to enlist cities, states, utilities, manufacturers, school districts, and businesses to improve energy efficiency, targeting heavy users such as data centers and outdoor lighting systems
- Set new energy efficiency standards for appliances and equipment, which have cut consumers' electricity bills by hundreds of billions of dollars. Taken together, the final energy conservation standards completed during this Administration add up to more than 2 billion metric tons of carbon emissions by 2030, and we are on track to meet the Climate Action Plan's goal of cutting 3 billion metric tons of energy waste by 2030

- Worked with companies, mayors, university presidents, and labor leaders to drive \$4 billion of investment in energy efficiency upgrades for public and private buildings
- Performed energy efficiency upgrades in nearly two million homes across the country

## PREPARED OUR COMMUNITIES FOR THE IMPACTS OF CLIMATE CHANGE

- Released the third U.S. National Climate Assessment the most comprehensive scientific report on domestic climate change impacts ever generated — and advanced the development of a "sustained assessment" process to provide a steady stream of information on the current and projected impacts of climate change in the United States
- Launched the Climate Data Initiative a broad effort to leverage the federal government's extensive, freely-available, climate-relevant data resources to stimulate innovation and private-sector entrepreneurship in support of national climate-change preparedness
- Developed the Climate Resilience Toolkit to provide centralized, authoritative, easy-to-use information to help communities prepare for the impacts of climate change
- Established the State, Local, and Tribal Leaders Task Force to advise the Administration on how to better support communities preparing for climate change on the local level
- Directed federal agencies to develop adaptation plans to reduce the vulnerability of federal programs, assets, and investments to the impacts of climate change
- Worked with communities to support investments in resilient infrastructure in the areas impacted by Hurricane Sandy and elsewhere, ensuring that infrastructure is built to withstand future disasters

- Launched the National Disaster Resilience Competition to help communities that have experienced major natural disasters to rebuild and better prepare for extreme weather
- Established the Arctic Executive Steering Committee to coordinate
  national efforts in the Arctic, and to strengthen cooperation among
  Federal agencies, State, local, tribal, academic, private and other groups
  to mitigate the impacts of climate change in the Arctic.
- Announced a comprehensive agenda to enhance the resilience of America's natural resources to the impacts of climate change and promote their ability to absorb carbon dioxide
- Supported tribes preparing for climate change through adaptation and training, data and information, and improved federal collaboration
- Launched the Resilience AmeriCorps to increase civic engagement and community resilience in low-income areas
- Launched the Climate Education and Literacy Initiative to ensure that all students and citizens have the knowledge and training they need to address the climate change challenge
- Developed and are implementing a national wildfire management strategy focused on fire adapted communities, response to wildfires, and restoring and maintaining landscapes
- Supported expanded use of green infrastructure techniques to improve natural management of stormwater and boost community resilience to flooding and other impacts of climate change
- Established a new flood standard to reduce the cost of future flood disasters by requiring federally funded projects to meet higher flood risk standards

- Launched the National Disaster Resilience Competition which
  will support innovative resilience projects at the local level while
  encouraging communities to adopt policy changes and activities that
  plan for the impacts of extreme weather and climate change and rebuild
  affected areas to be better prepared for the future.
- Dedicated new federal resources for economic diversification, job creation, training, and other employment services for workers and communities impacted by layoffs at coal mines and coal-fired power plants
- Invested in health and retirement programs for mineworkers and their families, and funded the accelerated cleanup of abandoned mine lands

#### PROTECTED TREASURED NATURAL RESOURCES

- Permanently protected more than 260 million acres of America's public lands and waters, more than any other president in history
- Signed the Omnibus Public Land Management Act of 2009, the most extensive expansion of land and water conservation in more than a generation, which designated more than 2 million acres of Federal wilderness and protected thousands of miles of trails and more than one thousand miles of rivers
- Developed an aggressive program to combat illegal fishing and enforce fishery rules
- Created the largest marine monument in the world, which is completely off-limits to commercial resource extraction
- Dedicated unprecedented attention and resources to restoring iconic places like the Chesapeake Bay, California Bay-Delta, Great Lakes, and Everglades

- Announced more recoveries under the Endangered Species Act than has been done under any previous administration
- Released the National Strategy for Pollinator Health and a Pollinator Research Action Plan in order to coordinate and expand Federal efforts to protect honeybees, monarch butterflies, and other pollinators nationwide
- Launched an "Every Kid in a Park" initiative that provides all fourthgrade students and their families free admission to all Federal lands and waters for a full year
- Taken unprecedented steps to prevent wildlife trafficking and implement the strongest environmental standards in an international trade deal
- Established the Gulf Restoration Council through the RESTORE Act, bringing five states and six Federal agencies together to restore Gulf Coast ecosystems and communities

These accomplishments are improving the air that our children breathe while reducing childhood asthma attacks, reducing premature deaths, and helping communities prepare for the impacts of climate change we can no longer avoid — particularly in low-income communities most vulnerable to the impact of climate change. They are creating new, good paying jobs for American workers and new economic opportunities for American businesses, and driving innovation so that America can lead the clean energy economy of the 21st century.

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