

# Climate Change Issue Brief

## Investing to Re-Balance a Warming World

### AUTHORS:

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### ISSUE CONTEXT AND DESCRIPTION

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The Earth is close to critical climate tipping points because of continuously increasing levels of carbon dioxide (CO<sub>2</sub>) and other heat-trapping gasses in the atmosphere, magnifying the natural greenhouse effect that keeps the planet warm. The planet now faces potentially “disastrous effects,” NASA scientists and others agree, that will be seen in rising sea levels, frequent droughts and floods and increased stress on wildlife, plants and the poor of the world who depend on these resources for their livelihoods.

Evidence ranges from the loss of a Manhattan-sized chunk of the Antarctic ice shelf in March 2008<sup>2</sup> to increasing temperatures and acidity in oceans to new World Health Organization predictions about the “magnitude of consequences” to air, water, food, shelter and freedom from disease. The year 2007 tied with 1998 as the planet's second warmest recorded year, with 2005 at No. 1.

In the United States, the second-largest carbon emitter after China<sup>3</sup>, coal-burning power plants are the largest source of CO<sub>2</sub> pollution, with cars in second place<sup>4</sup>. Burning fossil fuels – coal, oil and natural gas – and deforestation and land degradation, scientists agree, disrupt the natural balance in greenhouse gases, leading to a gradual increase in the world's temperature. Activists are urging the world's richest nations to help the poorest nations and people adapt to climate change before the resulting long-term impact and suffering begin.

A 2007 four-part study by the Nobel Peace Prize-winning U.N. Intergovernmental Panel on Climate Change painted a bleaker and growing degree of disruption than scientists had previously agreed upon. While some changes it described are under way, the window for action is still open. Reports from a wide array of business, government and industry sources assessing the cost of doing nothing about climate change all agree<sup>5</sup>: Not doing anything would be the most dangerous and expensive course for the economy. This consensus is stimulating a growing response in U.S. and global politics, industry and civil society to curtail global-warming and to evaluate and improve the capacity to adapt to growing vulnerability to climate-related risks.

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## SUCCESSSES AND CHALLENGES

Worldwide changes in attitudes and actions around climate change show how quickly people and nations are embracing responsibility to tackle the problems:

- More than 10,000 participants witnessed the adoption of the Bali Roadmap at the United Nations Framework Convention on Climate Change in November 2007, charting a two-year process to agree on global action to expand the international commitment to reduce greenhouse gas emissions set by the 1997 Kyoto Protocol. The roadmap also includes curtailing new emissions from deforestation and land degradation and ways to help poor countries adapt to climate change<sup>6</sup>.
- A partnership between the Israel government and an Israeli-American entrepreneur is pursuing a plan to install the world's first electric car network in Israel by 2011. The initiative, called Project Better Place, will provide lithium-ion batteries and the infrastructure to support the system, and Renault and Nissan will build the cars.

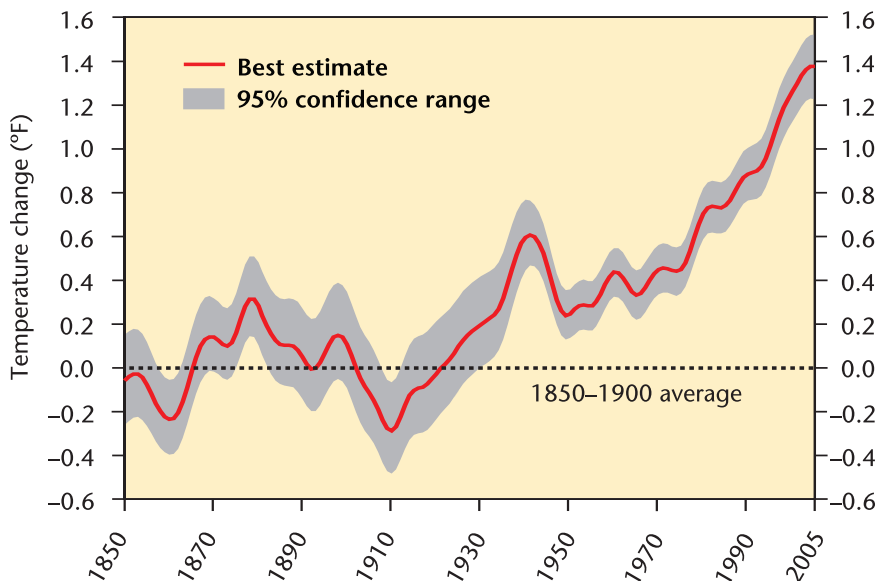
- In December 2007, the U.S. Congress approved and President George W. Bush signed the first new energy standards for cars and trucks passed since 1975. The new CAFE – or Corporate Average Fuel Economy – regulations boost standards from an average of 25 miles a gallon to 35 miles per gallon by 2020, and take effect in the 2011 model year.
- Corporations around the world are helping to lead the green revolution. Statoil, a Norwegian oil and gas company that leads the Dow Jones Sustainability Index, has been storing CO<sub>2</sub> from its operations since 1996. Waitrose, an employee-owned UK supermarket chain, has made its name selling locally sourced produce – more than 1,200 products – from within a 30-mile radius of its stores. And office-supplies retailer Staples Inc. severed all contracts with Singapore-based Asia Pulp & Paper Co. Ltd., one of the world's largest paper companies, in a display of concern for forest destruction.
- Nearly three in four Americans would pay more – even if it would increase the initial cost of a

new home by roughly \$7,500 – to help their own city or local government reduce emissions that cause global warming, according to a September 2007 survey by the Yale School of Forestry and Environmental Studies<sup>7</sup>.

But continuing challenges still illustrate how far the planet's advocates have yet to go:

- California and 16 states that have adopted its Clean Car Law or a version of it are still fighting in 2008 for the right to enforce their cleaner standards, suing the Environmental Protection

## Global Surface Temperature Trend 1850–2005



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Agency for a waiver to apply regulations more rigorous than those contained in the federal Clean Air Act. The law, enacted in 2002, remains in limbo despite a series of legal challenges that the state has won.

- While rich nations prepare for oncoming health challenges, experts predict that the spread of disease will see an additional 220 million to 400 million people exposed to malaria – a disease already claiming about 1 million lives annually. Dengue fever is already being seen at higher levels, especially in Latin America and parts of East Asia<sup>8</sup>.
- Nations – like China, Italy and India – and states – like Virginia, Michigan, Georgia and Kansas – continue with plans to build coal-powered energy plants, which operate 50 to 60 years before being decommissioned. A U.S. climate-change campaign, 1Sky, is working to mobilize America to support a platform of three environmental solutions: stop new coal plants; conserve 20 percent of energy by 2015 and create 5 million green jobs; and reduce emissions 25 percent below 1990 levels by 2020.
- Countries, cities, businesses and other organizations must adapt to new challenges – weather-related catastrophes and natural disasters and resulting insurance claims – and build capacity to protect their residents, shareholders, employees and other stakeholders from the results of climate change.
- Proposed climate-change technological solutions like CO<sub>2</sub> capture and storage (CCS) and policy tools like market-based cap-and-trade programs still require investment and development, demonstration projects and standards to bring them to the promise that advocates predict. Public policy and private investment can help drive these solutions to lessening the pollution that coal, the world's inexpensive power-plant fuel, creates.

## TRENDS

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Several trends illustrate a growing understanding of the issue:

- Venture capital is pouring into efforts to remake the \$6 trillion global energy industry. Enviro-activist, Nobel Peace Prize winner and former Vice President Al Gore has joined a leading Silicon Valley venture capital firm that has invested more than \$270 million in 26 companies working in the rapidly expanding clean-technology arena.
- While the coal-burning power plants of India and China place them atop the list of world's largest CO<sub>2</sub> emitters, they are also among the leaders in embracing green-building standards. In India, approval for any major commercial building demands energy-efficient plans. Chinese national standards require all new public construction cut energy use by at least 50 percent.
- Energy-efficiency industries have generated 8.5 million jobs for America, which could see one in four workers – 40 million – in related industries by 2030, according to a November 2007 American Solar Energy Society report. The green-collar job report predicted that appropriate public policy, research and development and energy incentives could help generate up to \$4.5 trillion by then<sup>9</sup>.
- To help philanthropists effectively engage on climate change, seven foundations commissioned Design to Win, a prescriptive collaboration by scientists, economists and other experts. It calls for a geographic focus on the world's biggest polluters, caps on carbon outputs and targeting five key sectors – power, industry, buildings, transportation, forestry – that most influence greenhouse emissions<sup>10</sup>.

## FUNDING OPPORTUNITIES

From supporting concrete acts with immediate impact to efforts that educate and engage citizens in the political process, donors have many options.

**One polluter at a time:** Focus on one industry or energy plant where you live and fund efforts to lessen emissions or introduce adaptation measures.

**The will to change:** Support advocates fighting for awareness and new policy, legislation and government action. Choose local actors or leading international organizers working to help the world's poorest victims of climate change.

**Local acting:** Break down global impacts of climate change into local issues to look for resolvable problems. To fund the establishment of green jobs, for example, consider giving money to a union of workers to explore how clean energy can create jobs or economic development in that sector.

**Green buildings:** Pay to evaluate energy use and install equipment that will increase efficiency in an office building, church, school, museum, fire department or city hall. Some companies provide such services in return for a portion of the energy savings, known as performance contracting; your donation could allow the savings to be invested in new staff or services.

**Climate-change prism:** Work with your current grantees to help them realign and assess programs in light of global warming and climate change.

**Retrofitting for the poor:** Helping low-income households become energy efficient attacks two problems at once – poverty and climate change. The average U.S. household spends 7 percent of its income on energy bills, but low-income households spend an average of 17 percent of earnings<sup>11</sup>.

**Working globally:** Consider emission-reduction projects in polluting countries like China or India, or economic projects to offset the more severe impact of climate change in developing countries.

## Donor Considerations

**When investing, remember to:**

**Be diligent** when considering carbon offset purchases and seek certification about how they're being calculated.

**Be strategic** when choosing where to engage – whether locally, by supporting green-building initiatives in your city; regionally, through educating policy makers; nationally, by supporting a carbon-emissions cap; or internationally, by funding organizations addressing impact in a poor or developing nation.

**Be realistic about expectations.** Rely on experts or socially responsible indexes to help make choices in the growing fields of green economic opportunity.

**Be collaborative to make your giving go further.** Many clean-energy and green-job technologies require funding at a level only governments usually spend. Seek out or join investment partners to support research and development efforts.

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