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# US must climate-proof growth to prevent human development reversals

## The 2007 Human Development Report calls for 80 percent emission cuts by 2050

**San Francisco, 27 November 2007**—The United States has a unique responsibility to “climate-proof” its growth not only to protect Americans but also to prevent catastrophic reversals in health, education and poverty reduction for the world’s poor, according to the Human Development Report (HDR) on climate change launched here today.

As the US prepares to join global leaders in Bali in December to negotiate future action against climate change, the United Nations Development Programme’s (UNDP’s) HDR, entitled *Fighting climate change: Human solidarity in a divided world*, stresses that a narrow ten-year window of opportunity remains to act.

If that window is missed, temperature rises of above four degrees Fahrenheit could see an extra 600 million people in sub-Saharan Africa go hungry, over 200 million more poor people flooded out of their homes and an additional 400 million exposed to diseases like malaria and dengue fever.

“The carbon budget of the 21st Century—the amount of carbon that can be absorbed creating an even probability that temperatures will not rise above four degrees—is being overspent and threatens to run out entirely by 2032,” says Kevin Watkins, lead author and Director of the Human Development Report Office, “and the poor—those with the lightest carbon footprint but the least means to protect themselves—are the first victims of the developed countries’ energy rich lifestyle.”

As the world’s largest economy and one of the biggest CO2 emitter, the US has a responsibility to take the lead in balancing the carbon budget by cutting emission by 80 percent by 2050, according to the Report, in addition to contributing to a new US\$86 billion annual global investment in substantial international adaptation efforts to protect the world’s poor.

### A “nine-planet” lifestyle

Across the world, 1.6 billion poor people still rely on fuelwood and animal dung for fuel. While they are left in the dark, rich countries are running up the energy bills. If each poor person on the planet had the same energy-rich lifestyle as the average American, nine planets like ours would be needed to safely cope with the pollution, says *Fighting climate change*.

The 19 million people living in New York State have a higher carbon footprint than the 766 million people living in the world’s 50 least developed countries, states the Report, while an average air-conditioning unit in Florida emits more CO<sub>2</sub> in a year than a person in Afghanistan or Cambodia during their lifetime.

## Balancing the carbon budget

While a handful of private and public sector initiatives in the US have successfully reduced emissions in some industries, “voluntary” emission cut policies are not enough, says the Report. Greenhouse gas intensity—the amount of greenhouse gas emissions released per dollar of gross domestic product (GDP) generated—has fallen by one quarter since 1990 in the US but total carbon emissions have risen by one quarter. This means that while economic growth is not as greenhouse gas intensive as it was, emissions continue to climb.

Although the Report stresses that the US approach of focusing on cutting greenhouse gas intensity rather than overall emissions is not enough, the changes required do not imply an overtly pessimistic future: “While the transition to cleaner energy and lifestyles will have short-term costs, there may be economic benefits beyond what is achieved by stabilizing temperatures,” stresses UNDP Administrator Kemal Derviş in the Report. “This could bring new incentives for massive investment, stimulating overall demand and leading to innovation and productivity jumps in a wide array of sectors,” he says.

Therefore, *Fighting climate change* sets out a checklist for US officials as they prepare for the Bali climate change negotiations in December. They are as follows:

- **Cut emissions 30 percent by 2020 and at least 80 percent by 2050** against a 1990 baseline.
- **Invest and promote the deployment of Carbon Capture and Storage (CCS) technology and Integrated Gasification Combined Cycle (IGCC) power plants**, emerging technologies that while costly, massively reduce the emissions of coal-fired power stations. Currently only 11 CCS plants worldwide are slated to be brought online by 2015, which is too few, too late. The US should aim at 30 CCS demonstration plants by 2015, and the European Union should have a comparable level of ambition.
- **Commit to an increased usage of renewable energy sources**, in particular wind and solar.
- **Improve regulatory standards for emissions from building and electrical appliances.**

**Table 1.2 Global carbon footprints at OECD levels would require more than one planet<sup>a</sup>**

|                    | CO <sub>2</sub> emissions per capita (t CO <sub>2</sub> )<br>2004 | Equivalent global CO <sub>2</sub> emissions (Gt CO <sub>2</sub> )<br>2004 <sup>b</sup> | Equivalent number of sustainable carbon budgets <sup>c</sup> |
|--------------------|---|--|--|
| World <sup>d</sup> | 4.5   | 29   | 2  |
| Australia          | 16.2  | 104  | 7  |
| Canada             | 20.0  | 129  | 9  |
| France             | 6.0   | 39   | 3  |
| Germany            | 9.8   | 63   | 4  |
| Italy              | 7.8   | 50   | 3  |
| Japan              | 9.9   | 63   | 4  |
| Netherlands        | 8.7   | 56   | 4  |
| Spain              | 7.6   | 49   | 3  |
| United Kingdom     | 9.8   | 63   | 4  |
| United States      | 20.6  | 132  | 9  |

a. As measured in sustainable carbon budgets.

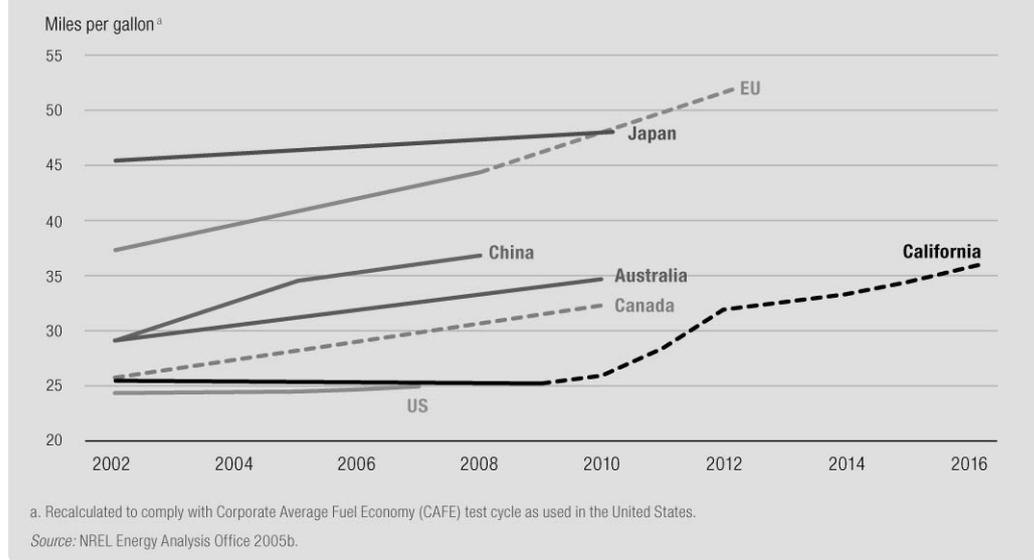
b. Refers to global emissions if every country in the world emitted at the same per capita level as the specified country.

c. Based on a sustainable emissions pathway of 14.5 Gt CO<sub>2</sub> per year.

d. Current global carbon footprint.

Source: HDRO calculations based on Indicator Table 24.

**Figure 3.5 Rich country fuel efficiency standards vary widely**



- **Raise fuel standards by 20 miles per gallon for cars and light trucks.** This would save 3.5 million barrels of oil per day. The US has the lowest fuel efficiency standards in the developed world—lower, in fact, than in China, stress the authors.
- **Recognize carbon sequestration** on forests and land as essential parts of a future global agreement.
- **Put a proper price on carbon** through a combination of carbon taxation and cap-and-trade schemes. A carbon tax in advanced economies, could generate over \$250 billion per year that can be used for investments in international adaptation and mitigation programmes.
- **Introduce national legislation designed to expand regional initiatives such as the Regional Greenhouse Gas Initiative and Western Regional Climate Action Initiative** around emissions-trading.

Some progress is being made, stress the authors. As the House and Senate negotiate a new energy bill in the US Congress, issues including efficiency targets, renewable electricity generation and how cancelled tax breaks on big oil companies can be invested in renewable energy are already on the table. In states like California, New York and Texas, many of these proposals are already being actively considered or implemented, while several hundred US cities, with populations totaling 65 million people, have signed on to meet their local Kyoto Protocol obligations.

California, the world's sixth largest economy, is setting the global standard for action on climate change mitigation, according to the Report. The State's 2006 Global Warming Solutions Act requires California to cap greenhouse gas emissions by 2020 at 1990 levels, with a long-term reduction goal of 80 percent by 2050. This legislation represents the first enforceable state-wide programme to cap emissions from all major industries, with built-in penalties for non-compliance.

The State is also pioneering higher standards for vehicle emissions, requiring a 30 percent reduction in greenhouse gas emissions from new vehicles by 2016, stringent emission standards for electricity designed to drive low-carbon electricity generation, and by 2020, California aims to generate 20 percent of its power from renewable sources.

### **“Climate-proofing” the US**

However, mitigation alone is not enough, warns *Fighting climate change*. Even the most stringent cuts will not start to have a major impact until the mid-2030s and temperatures will continue to rise through to 2050, cautions the Report.

In the meantime, as Hurricane Katrina and the destruction of much of New Orleans demonstrated all too vividly, the Gulf Coast states and the oil facilities in the Gulf of Mexico stand at risk of being more frequently battered by evermore devastating hurricanes due to warming oceans. Lower Manhattan in New York risks submersion with rising sea levels driven by the accelerated melting of the Greenland and west Antarctic ice caps, say the authors.

Increasing reliance on coal-fired power plants to meet surging energy needs in the US means that the country faces a hefty and mounting bill to climate-proof its own country. With each year's delay in starting to reduce CO2 emissions, that bill increases. Authorities in the US are considering proposals for building over 150 coal-fired power plants, with planned investment of \$145 billion to 2030, highlights the Report.

### **Fighting “adaptation apartheid”**

Poor people in developing countries are being landed with similarly increasing climate-proofing bills they cannot afford to pay. Their ways of coping vary dramatically to those of rich countries.

In the low-lying Netherlands, for example, homeowners are preparing for flooding with the assistance of the government by building homes with foundations like the hull of a ship that can float on water, yet in the densely populated villages of the Mekong Delta in Viet Nam, locals are left to adapt with swimming lessons and lifejackets. While the rich are learning how to float on water, the poor at best are learning how to float in it, “creating a world of ‘adaptation apartheid’,” writes Desmond Tutu, Archbishop Emeritus of Cape Town, South Africa, in the Report.

Total current spending through multilateral mechanisms on adaptation in developing countries has amounted to only \$26 million to date—roughly one week’s worth of spending on United Kingdom flood defences. This is nowhere near sufficient, says the Report, and it calls on the United States to support a new global annual investment of \$86 billion, or 0.2 percent of northern countries’ combined GDP, in adaptation efforts to climate-proof infrastructure and build the resilience of the poor to the effects of climate change.

*Fighting climate change* concludes that “one of the hardest lessons taught by climate change is that the economic model which drives growth and the profligate consumption in rich nations that goes with it, is ecologically unsustainable.” But the authors argue, “with the right reforms, it is not too late to cut greenhouse gas emissions to sustainable levels without sacrificing economic growth: that rising prosperity and climate security are not conflicting objectives.”

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**ABOUT THIS REPORT:** The Human Development Report continues to frame debates on some of the most pressing challenges facing humanity. It is an independent report commissioned by the United Nations Development Programme (UNDP). Kevin Watkins is the Lead Author of the 2007/2008 report, which includes special contributions from UN Secretary-General Ban Ki-moon, President Luiz Inácio Lula da Silva of Brazil, Mayor of the City of New York Michael R. Bloomberg, Advocate for Arctic climate change Sheila Watt-Cloutier, Chair of the World Commission on Sustainable Development and former Prime Minister of Norway Gro Harlem Brundtland, Archbishop Emeritus of Cape Town Desmond Tutu, and the Director of the Centre for Science and Environment Sunita Narain. The Report is translated into more than a dozen languages and launched in more than 100 countries annually. Further information can be found at <http://hdr.undp.org/en/reports/global/hdr2007-2008/>. The 2007/2008 Human Development Report is published in English by Palgrave Macmillan.

**ABOUT UNDP:** UNDP is the UN's global network to help people meet their development needs and build a better life. We are on the ground in 166 countries, working as a trusted partner with governments, civil society and the private sector to help them build their own solutions to global and national development challenges. Further information can be found at [www.undp.org](http://www.undp.org)