



*World Climate*

Negotiating a Global Climate Agreement using the C-ROADS Climate Policy Simulation  
Prof. John Sterman  
MIT Sloan School of Management

**CONFIDENTIAL**

**Briefing for Upcoming Climate Negotiation**

**TO:** *Other Developed Economy* Negotiators at UN conference on Climate Change  
**SUBJECT:** Our negotiating goals

You represent the developed economies of the world other than the US and European Union (EU) at the upcoming negotiations on climate change (Australia, Canada, Japan, New Zealand, Russia and other former Soviet Republics, South Korea, etc.).

The best available science shows the risks of climate change are real and serious. Our governments seek to negotiate a global agreement to reduce greenhouse gas (GHG) emissions that achieves the best outcome for our economies and vital national interests, as well as for the world. The public in our countries generally believes climate change is real, and that human activity contributes significantly to it. Most support agreements to address the climate change issue. However, many oppose higher taxes on energy or other actions that will raise the cost of living. Climate change ranks near the bottom of most people's priorities, far below the economic crisis, government austerity programs and jobs.

Most importantly, the public is strongly opposed to any agreement that does not require mandatory commitments by the United States, and by the developing economies, particularly China and India. With the economy still weakened by the recession and financial crisis there is fear that actions to limit future emissions will harm our competitiveness, hurting both businesses and workers. Any agreement that puts the greatest economic burden of limiting climate change on us is not politically acceptable. All of our nations ratified the Kyoto Accord, while the United States never has and China, India and other developing nations were exempted from it.

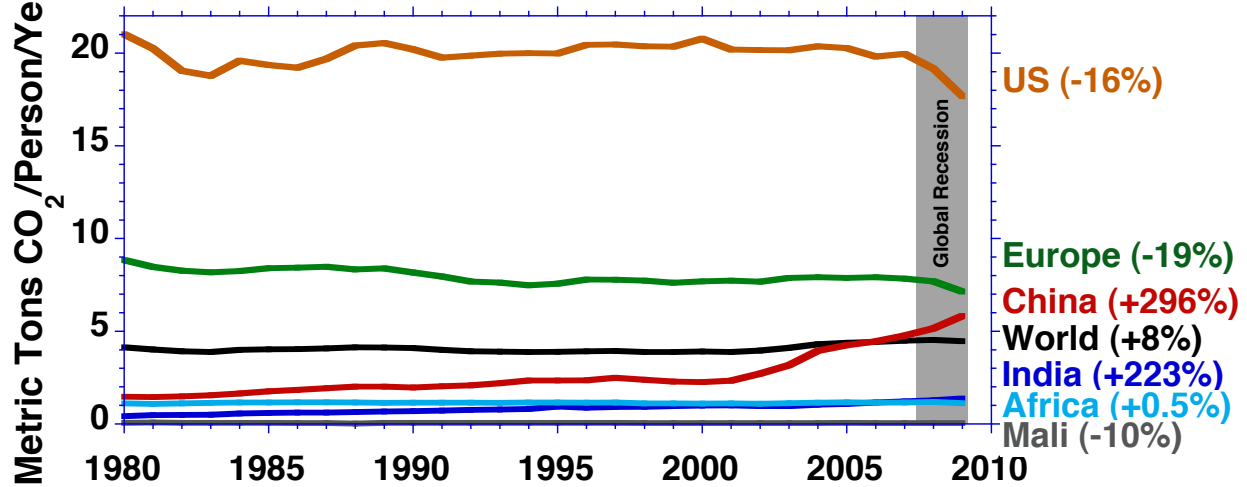
China and the US are now the world's number one and number two emitters of CO<sub>2</sub> and GHGs. Per capita emissions in the US are more than three times greater than the world average. China's emissions are growing very rapidly, as are emissions in India and other developing nations. Total GHG emissions from these developing countries will soon overwhelm emissions from all developed nations. The rest of the world must agree to significant action if there is to be an effective international agreement. Under the Business as Usual (BAU) scenario (based on the IPCC A1FI case), by 2050, absent an agreement to slow climate change, emissions from the developing nations will rise more than a factor of four, and those of the less developed nations will rise more than a factor of five, while developed nation emissions will rise only 230% above current rates. Worse, the economies and GHG emissions of the developing nations have recently been growing far faster than the rates assumed in the scenarios used by the IPCC.

As we learned at the 2009 and 2010 climate conferences in Copenhagen and Cancún, the less developed nations will argue that they can limit their GHG emissions through REDD policies (Reductions in Emissions from Deforestation and land Degradation). While deforestation is a serious problem, we believe this is a tactic to allow them to keep burning fossil fuels while we, who have less potential for REDD because we have been better stewards of our forest resources, must cut our fossil fuel consumption. It is difficult to monitor compliance with programs to cut deforestation, and afforestation programs are only temporary as the wood products grown are eventually cut, through legal or illegal means (poaching), or decay or burn through wildfire. Corruption in many developing nations is rampant. There is no guarantee that any agreements on REDD will be enforceable.

On the reverse of this page you will find some data that may be helpful in your negotiations. Good luck!

The graph below shows per capita CO<sub>2</sub> emissions from energy use (primarily fossil fuels) for the world and selected nations/regions. Percentages are the total change for the period 1980-2009. Since 1980 CO<sub>2</sub> emissions per capita in the US and Europe have fallen 16% and 19%, respectively, while emissions per capita in China and India have risen 296% and 223%, respectively. The growth in emissions in these nations has accelerated rapidly in the last decade. In addition, the populations of the developing and less developed nations are growing far faster than those in the developed nations.

## World per Capita Carbon Emissions from Fossil Fuels



Source: DOE/EIA

China is now the world's largest emitter of CO<sub>2</sub>, and emissions from China, India and other developing nations, are growing far faster than emissions from the US, EU and other developed nations. Under the BAU (IPCC A1FI) scenario, total CO<sub>2</sub> emissions from fossil fuels (FF) are projected to rise to approximately 415% of current (2005) rates by 2050 in the developing nations, and about 315% of current rates in the less developed economies, with continuing growth to approximately 545% above current rates by 2100 for the developing nations and 415% above current rates for the less developed nations. Emissions from the developed nations are projected to rise much less, only about 230% above current rates by 2050 and 300% above current rates by 2100. Under BAU assumptions, the share of global emissions from the developed nations is projected to fall from 52% in 2005 to 39% by 2050.

## CO<sub>2</sub> Emissions from Fossil Fuel Consumption (GtCO<sub>2</sub>/year)

