





World Climate

Negotiating a Global Climate Agreement using the C-ROADS Climate Policy Simulation Written by John Sterman (MIT Sloan School); updates by Juliette Rooney-Varga (UMass Lowell CCI)

## CONFIDENTIAL Briefing for Upcoming Climate Negotiation

TO: United States Negotiators at UN conference on Climate Change

**SUBJECT:** Our negotiating goals

You head the United States delegation at the upcoming negotiations on climate change.

The best available science shows the risks of climate change are real and serious. The United States seeks to negotiate a global agreement to reduce greenhouse gas (GHG) emissions that achieves the best outcome for our economy and vital national interests, as well as for the world. A majority of the public in our country believes climate change is real, and that human activity contributes significantly to it. Most support agreements to address the climate change issue. However, most 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 including jobs and the economy.

Most importantly, the public is strongly opposed to any agreement that does not require mandatory commitments by the developing nations, particularly China and India. Any agreement that puts the greatest economic burden of limiting climate change on the US is not politically acceptable. The Obama administration proposed limits on US GHG emissions in 2009, but the cap and trade legislation designed to achieve these reductions died in 2010, and there is no prospect for action given the current makeup of the Congress. With the economy still weak, many in the public fear that actions to limit emissions will hurt both businesses and workers. However, new research, including the bipartisan "Risky Business" report (<u>http://riskybusiness.org</u>), endorsed by former US Treasury Secretaries of both parties, shows that the costs of delay are high while most states and regions in the US will benefit from policies that reduce GHG emissions. See also the new US National Climate Assessment report showing that climate change is harming every one of the 50 states today; without dramatic emissions reductions, the damage will become far more severe (www.globalchange.gov).

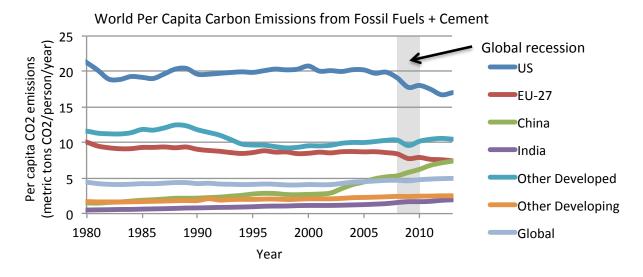
China is now emitting over 25% of global  $CO_2$  emissions, more than the US, Mexico, and Canada combined, and its emissions and economy are growing far faster than ours. China has recently agreed to peak its emissions 'around 2030,' but made no commitments to reduce emissions. Meanwhile, emissions from other rapidly developing countries, such as India, continue to grow. The US cannot agree to further action unless there are significant, verifiable agreements for emissions reductions from the rest of the world. Already, under the current stated commitment, by 2030, China's emissions are projected to be about four times those of the US. Without emissions cuts from other developing and less developed nations, by 2050, their combined emissions will rise to almost three times those of developed countries.

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 ploy 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), decay, or burn as firewood or through wildfire. Corruption in many developing nations is rampant. There is no guarantee that any agreements on REDD will be enforceable.

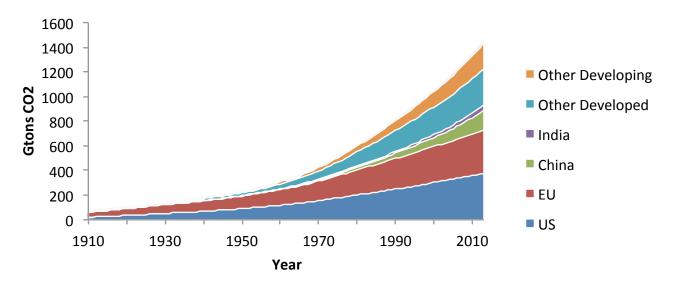
On the reverse of this page you will find some data that may be helpful in your negotiations. Good luck!

Prepared by John Sterman, <u>jsterman@mit.edu</u>, April 2008; last revision December 2014 by Juliette Rooney-Varga, juliette\_rooneyvarga@uml.edu.

The graph below shows per capita  $CO_2$  emissions from energy use (primarily fossil fuels) for the world and selected nations/regions. Percentages are the total change for the period 1980-2013. Since 1980,  $CO_2$  emissions per capita in the US and Europe have fallen 20% and 26%, respectively, while emissions per capita in China and India have risen 391% and 285%, 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.



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 (RCP 8.5) scenario, total CO<sub>2</sub> emissions from fossil fuels (FF) are projected to rise to approximately 215% of current (2013) rates by 2050 in the developing nations, and about 280% of current rates in the less developed economies, with continuing growth to approximately 296% above current rates by 2100 for the developing nations and 436% above current rates for the less developed nations. Emissions from the developed nations are projected to rise much less, only about 186% above current rates by 2050 and 263% above current rates by 2100. Under BAU assumptions, the share of global emissions from the developed nations is projected to fall from 43% in 2013 to 37% by 2050.



Cumulative CO<sub>2</sub> Emissions from Fossil Fuel Combustion (GtCO<sub>2</sub>)