





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: *European Union* Negotiators at UN conference on Climate Change

**SUBJECT:** Our negotiating goals

You head the European Union delegation at the upcoming negotiations on climate change.

The best available science shows the risks of climate change are real and serious. The nations of the EU 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. A majority of the public in our countries 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, below the economic crisis, government austerity programs and unemployment.

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. The EU has been a leader in the fight against climate change: all the nations of the EU ratified the Kyoto Protocol, while the United States never has, and China, India and other developing nations were exempted from it. The EU pioneered carbon markets and is a leader in deploying renewable energy sources such as wind and solar. We will continue to lead but we cannot and will not move alone. Argue that cutting emissions will benefit the US, and seek to ally with them to advocate for cuts by China, India and the developing nations. If the US balks, point out that 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 and the US are now the world's number one and number two emitters of  $CO_2$  and GHGs. China's emissions are growing very rapidly, and per capita emissions in the US are more than double those of Europe. Emissions in India and other developing nations are also growing rapidly. Total GHG emissions from the developing countries will soon overwhelm emissions from all developed nations. The EU cannot agree to action unless there are significant, verifiable agreements for emissions reductions from China and the rest of the world. Under the Business as Usual (BAU) scenario (based on the RCP 8.5 case), by 2050, absent an agreement to slow climate change, emissions from the developing nations (primarily China, India, Indonesia, Brazil, Mexico and other rapidly 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.

The less developed nations will argue that they can limit their GHG emissions through REDD policies (Reductions in Emissions from Deforestation and land Degradation) or that they need our financial support to reduce their emissions. 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), 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, jsterman@mit.edu, April 2008; last revision July 2014.

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 EU-27 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>)