

Climate Change – a summary for policymakers: participant assignment

For those of you who couldn't make it to the final assignment (and just to remind those who did), here are the details of the participant assignment. I presented one idea of what I think would be a more effective global climate policy than those being touted at the moment, but I'd like to hear ideas from you. Please write a short summary (1000 words would be fine) of what you think would be the most effective climate policy for the 21st century, using the Excel spreadsheet model to illustrate your answer.

The spreadsheet is set up to automatically reduce emissions from now on to whatever level is indicated by the perceived social cost of those emissions. I emphasise perceived social cost, which may be much lower (or, conceivably, higher) than the true cost. Varying the discount rate or fraction of global damage included in the SCC calculation (both of which are socially-determined parameters) allows you to mimic whatever behaviour you think is plausible.

In addition, you could, for example:

- Explore the implications of uncertainty in the climate system response (ECS and TCR): how risk-averse to you think we should be?
- Explore varying the global climate impact function – how much do you think climate change is costing us already, as a fraction of global consumption, and how fast do you think this might increase?
- Explore applying different MACs for methane and N₂O. Nick and I just made up numbers for these ones (apologies – next year's spread-sheet will be better informed), so you might want to head for the internet to find out, for example, what people think it would cost to reduce anthropogenic N₂O emissions to zero. Or you could explore making methane reductions very cheap (many people would argue there isn't really much of a global cost of changing to a healthier more plant-based diet and fixing natural gas leaks, for example), again to see how temperatures respond.
- Explore what happens if you make more optimistic assumptions about the costs of CO₂ reductions, assuming breakthroughs in renewables and energy storage. Or the discovery of an air-capture technology that costs only a hundred dollars per tCO₂. You want to be critical of the model here, because it assumes infinitely rapid deployment is possible.

I don't want to be too prescriptive and turn this into an exercise, because I'd genuinely like to hear from you what you think will and should happen, but I would like you to use the model to illustrate your answer (even if it is only to show futures that you think are undesirable), and try and bring in the topics we have covered over the term, because that will help us all to synthesise them. Do feel free to bring in other material as well to illustrate your proposal.

Don't forget, you don't need to identify yourself if you'd prefer not to, but please put some unique identifier on your contribution (however you would like to be identified if I pick you out to present).