New economics of climate change action challenges 'costly burden' arguments

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As representatives from more than 190 countries gather in Paris to negotiate an international deal to tackle climate change it is timely to reflect on the evolving economic rationale for international climate cooperation.

A central conclusion of the 2006 Stern Review of the Economics of Climate Change was that the *global* costs of failing to act on climate change would outweigh the global costs of acting to mitigate it through deep reductions in greenhouse gas emissions.

But the state of the art in economics at the time held that for any *single country*, reducing emissions would impose immediate, definite and high costs on its local economy for the faint benefit of a long-term, uncertain and marginal reduction in climate risk that would be enjoyed by the whole planet.

On this view, individual countries have an incentive to "free-ride" on the emissions reduction efforts of others rather than take costly action themselves. Since every country has this incentive, none cuts emissions; a "tragedy of the global commons" ensues.

This tragic logic provided the central rationale for a "broad and deep" model of international cooperation: broad in the sense that it would involve all countries, and deep in the sense that it would entail complex international mechanisms to force countries to meet binding emissions reduction targets.

The international community tried to negotiate an agreement along the lines of the "broad and deep" model for the better part of two decades, but the task proved Sisyphean. In a world of nearly 200 sovereign states negotiating under a process that requires unanimity, the negotiations repeatedly collapsed under the weight of what was being attempted — most spectacularly in Copenhagen six years ago.

In recent years, a richer, more nuanced understanding of the economics of domestic climate action has emerged, which challenges the traditional assumption that such action is merely a "costly burden".

Three kinds of analysis have been central to this intellectual revolution. The first highlights the potential for actions now that both save money and reduce emissions relative to higher carbon options. This includes actions to improve the efficiency of micro-level energy-use (e.g. regulated standards and retrofits) and of macro-level fiscal policy (e.g. cutting fossil fuel subsidies, pricing carbon, and recycling the additional revenue to more efficient uses).

The second involves understanding how the costs of action — especially of deploying zero carbon energy sources — change over time as a result of innovation, scale economies, competition, and new networks, infrastructure and institutional arrangements. It is these kind of dynamics, facilitated by smart policies, which are behind the extraordinary cost declines in solar photovoltaic and onshore wind technologies, and which hold the promise for a cheaper, low-carbon energy system.

The third involves understanding the nature and scale of non-climate economic benefits that come from many forms of climate action. For example, deep reductions in fossil fuels, especially coal, would dramatically improve public health in many countries, at great economic benefit, by reducing local air pollution that kills an estimated 7 million people every year. And there is enormous potential for innovation in clean technologies — which are extremely knowledge-intensive and fecund — to drive productivity and growth across countries' economies.

In a recent working paper, I review the rapidly growing literature documenting these various factors. I conclude that

decarbonising national economies can mostly be done in ways that result in national economic benefits that outweigh the national costs over the medium term (even before the benefits of reduced climate change are taken into account). Such actions are, in other words, mostly in countries' economic self-interest.

This is the new economics of climate change.

In a world where there is a strong national interest case — even in the narrow economic terms I have described — for domestic climate action, there is no need for a "broad and deep" approach to international cooperation; countries shouldn't need to be forced to act in their own interests. That is why the "broad and shallow" approach currently being pursued in the UN process makes sense.

But much more needs to be done. For one, we also need "narrow and deep" forms of international cooperation among smaller groups of countries determined to lead in particular areas. The economics of climate action could be improved further still, for example, through coalitions to develop and deploy clean technologies, harmonise efficiency standards, price carbon seriously, keep fossil fuels in the ground, pool green finance, share good practices, and support developing countries to develop cleanly.

Moreover, such cooperation can help to overcome the biggest barriers to climate action: the toxic domestic politics that arise in most countries from the domination of interests, institutions and ideas formed in the fossil fuel age.

After all is said and done in Paris, we must get to work on a new international politics of climate change — one that is awake to both the extraordinary economic opportunities, and the daunting political challenges, of tackling climate change in the domestic sphere.

Notes:

- This article is based on the author's working paper Nationally Self-Interested Climate Change Mitigation: A
 Unified Conceptual Framework, published by LSE Grantham Research Institute on Climate Change and the
 Environment (2015).
- This post gives the views of the author, and not the position of LSE Business Review or the London School of Economics.
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Fergus Green is a climate change policy consultant and researcher. He is currently undertaking a PhD in Political Science in the LSE's Department of Government. From January 2014 to October 2015 he was a Policy Analyst and Research Advisor to Professor Nicholas Stern at the LSE's Grantham Research Institute on Climate Change and the Environment and the ESRC Centre for Climate Change Economics and Policy.

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