

Social science research and the climate action challenge

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What will the dialogue surrounding climate change look like in 2018?

For those of us committed to a sustainable future, 2017 has been a challenging year.

A year ago there was a good deal of trepidation in the air about the election of President Trump in the US, and an apparently rising tide of xenophobic nationalism in much of the world. Nationalism tends to be bad news for climate action, as it undermines the multilateral spirit needed to tackle global challenges like climate change.

President Trump's announcement of his intention to withdraw the US from the Paris Agreement on Climate Change duly followed –and raised concerns in advance of climate talks in November.

Progress at COP23 was a mixed picture but could certainly have been worse. Fiji deserves credit for strong leadership. And the swell of support for climate action from US States, cities, businesses and civil society evident throughout was heartening –and a stunning rebuke to the climate denier President.

Two key processes for 2018 will be the finalising of the rule-book for the Paris Agreement, and the Talanoa Dialogue which must drive increased ambition to reduce Greenhouse Gas emissions.

Increased ambition is certainly needed because action to tackle climate change is nowhere near where it needs to be.

A global concern

In the wake of 2017's epidemic of extreme weather the supposedly "safe" upper goal for planetary warming of 2 degrees Celsius looks anything but. Aside from extreme weather, recent research suggests that more than a quarter of the planet's surface could become significantly drier at 2C. All of this reinforces the case for the more ambitious Paris goal of limiting warming to 1.5C.

But we are a long way off the pace. If all of the national climate action plans of all the countries on which the Paris Agreement's hopes of mitigating climate change are based were perfectly executed, then we would still likely be headed for 3C of warming by 2100.

The combination of these powerful driving forces –growing appreciation of the implications of global warming in the here and now, and appreciation of just how far current climate action plans fall short of the level of ambition we need –is likely to drive a more polarised and urgent debate on climate action in 2018.

We can expect to see on the one hand growing social activism to push business and government leaders to take urgent action. This will include increasing use of climate litigation as a weapon to take on vested interests.

Legal action targeting both governments and fossil fuel companies will be boosted by continuing developments in “attribution science »–the ability of scientists to establish the degree to which specific harm (in particular from extreme weather events) is caused by climate change.

On the other hand, the debate about climate geoengineering is bound to become more intense – with a broader focus including solar radiation management as well as carbon-dioxide removal. It is urgent that we get a better understanding of the potential impacts on poorer countries and the climate vulnerable, and seek to boost their voice in the growing debate about the governance of research into such technologies.

Technological advances will continue to make renewable energy a cheaper and more attractive proposition, with improved battery storage a key dimension. But less benign technical disruption may occur too. Emerging data on the energy demands of some crypto-currencies, particularly Bitcoin, are staggering. The growth of these mediums of exchange could eat up any energy efficiency gains the world is making in other areas, which is worrying.

Priorities for social science research

Given this context where can social science research in the Global South make a difference? Here are four suggested areas.

1. Action research on effective climate finance and getting “money where it matters

Research by IIED has demonstrated that less than ten per cent of climate finance from multilateral funds is intended to reach local institutions where it can make a difference to climate vulnerable communities. Not all climate finance should be targeted at this level –there is a rationale for spending on adaptation infrastructure as well as to leverage investment in climate change mitigation. But clearly not enough is reaching the sharp end of the harm that climate change causes. Action research which demonstrates how this can be done effectively is an important priority.

2. Documenting the human impacts, including complex social and behavioural responses

In some contexts, the connection between climate change and displacement is brutally obvious – as with sea level rise and low lying coastal areas. No country in the world has more of its population exposed to displacement from sea level rise than Bangladesh.

Other processes are more subtle and the linkages to behaviour less direct. How do uncertainties in the natural environment affect the incentives that people experience to invest in their land, or the ways in which they plan their lives? How do these uncertainties affect different groups in the population –men and women, farmers, pastoralists or fishers?

Addressing the policy challenges imaginatively but in ways which are grounded in a good understanding of context will also be critical. Dr Saleemul Huq has pointed out that Dhaka (or other megacities) will not be able to absorb all of the people who will be on the move as a result of climate change and other drivers. There is an urgent policy agenda to help secondary towns to plan for absorbing some of the influx, and to help those locations to develop resilient economies and societies (including labour markets) in the face of climate impacts.

Social scientists also have a role in making the human case for climate action on a global scale and communicating that to publics everywhere. It is a truism and perhaps becoming a cliché, that the poorest people in the world who did least to create the problem, are most vulnerable to the effects of climate change.

But we must not stop repeating it or finding ways to communicate the reality to publics worldwide – including in the rich countries that bear most of the historic responsibility.

Icon of global warming. Earth, temperature, sun. Ecology concept. Can be used for topics like catastrophe, climate change, global problems

3. Understanding distributional impacts of emerging technological developments

The debate about climate geoengineering is likely to get intense in 2018. What could be good –the promise of ways to either cool the planet through enhancing the reflection of sunlight, or to remove CO₂ from the atmosphere thereby reducing global warming –could also be terrible. Particularly if banking on hypothetical solutions from unproven technology reduces the urgency of efforts to stop putting greenhouse gases into the atmosphere.

What is clear is that none of the techno-solutions under consideration will have equitable impacts between rich and poor nations, between powerful and powerless people

The social justice implications are massive.

The bio-energy with carbon capture approach, if deployed at scale, could threaten food production and nutrition –and pose threats to poor communities’ ability to retain land and natural resource rights. Sunlight reflection methods are highly uncertain with potentially

alarming geopolitical considerations for countries without the power and wealth to be in the driving seat.

It is an area of work that calls for genuinely inter-disciplinary approaches. In terms of the potential social, political and human impacts of the technologies any serious work will need to combine rigorous scientific and social science analysis. And the political economy of governing practical research is also challenging.

The great conundrum of geo-engineering can be formulated as follows: the failures of global governance (i.e. to mitigate climate change) which are prompting interest in geoengineering, make it incredibly dangerous to proceed with it in practice. But those same weaknesses also mean it may be impossible to stop. Policy and research communities in the Global South will need to be engaged.

There are many other aspects of technological change which will need careful engagement by social science and social policy researchers. For example, as the coal industry is phased out jobs are put at risk –generally on a small scale in rich countries but often on a much larger scale in middle income countries.

Ensuring a “just transition” means finding ways of helping communities transition out of dying industries. Effective processes and policies to support that will be vital to keep green transitions on track politically.

4. Inclusive, sustainable urban development

The majority of urban population growth in the next decades will be in the poorest countries. Shaping this growth in ways that will be green and low carbon is immensely important as it is easier to guide and shape than to reshape a badly formed mess after the fact.

And inclusive and sustainable development will not be achieved without inclusive and sustainable cities. In countries with relatively low capacity to shape such development this is a significant challenge.

Making it count

It is clear that many of the urgent priorities for research to support effective climate action – in a range of fields including science and law as well as social science –will need to be driven from the Global South.

Improving our ability to communicate between research communities globally (south-south as well as south-north) will be essential. It will be vital to share our experience on making our analysis and research count in practice as well as the more technical aspects of our work.

IIED is very proud to have worked with our partners in Bangladesh (the International University of Bangladesh and the Bangladesh Centre for Advanced Studies) to foster the development of a genuinely world class institution here in Dhaka –the International Centre for Climate Change and Development, organisers of this Gobeshona Conference.

We look forward to continuing to work to develop the capacity and relationships needed to drive transformational change. Such an effort has never been more urgent and more important than it is now.

Originally this article was published on January 11, 2018 at [Dhaka Tribune](#). The author Andrew Norton is the director of the International Institute for Environment and Development. His twitter handle is: @andynortondev.