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Ratchet Up: Five tools to lift climate action after Paris

by Dr Thomas Hale, Associate Professor at the Blavatnik School of Government



Concrete progress at Paris, but more needed

In December 2015, the 21st conference of the parties (COP21) of the United Nations Framework Convention on Climate Change (UNFCCC) can mark a decisive turning point in the world's effort to avert dangerous changes in our climate.

Already, over 150 countries have set out plans for how they intend to reduce emissions and adapt to climate change after 2020. If implemented, these pledges will put the world on a pathway to around 2.7C degrees of temperature change by the end of the century, according to one estimate (figure one). This shift is substantial progress compared to the 3.6C degrees we would otherwise reach under current policies. But to those of us who might be alive in 2100, and to our descendents, 2.7C degrees of temperature change would still be catastrophic.

The crucial question, therefore, is how to bend down the emissions pathway from the red zone in figure one to the green zone. The next five years are key. If we do not reach a sharper reduction curve by 2020, the growing emissions gap becomes increasingly difficult to fill.

COP21 matters, then, not just for what countries pledge, but for the process they set in motion for future reductions.

Key points:

COP21 will make strong progress toward limiting climate change, but countries' pledges also leave a substantial 'emissions gap.' The summit's success therefore depends in large part on whether it launches a credible basis through which to ratchet up climate action, especially over the next five years.

At COP21 and beyond, countries should strengthen five 'ratchets' to increase climate action after 2015:

1. Agree to raise national contributions in regular, five-year cycles
2. Agree to practical international review of country pledges that mixes accountability with support for implementation, tailored to countries' circumstances
3. Support the groundswell of action from cities, companies, and other actors
4. Continue diplomatic efforts at the bilateral, mini-lateral, and sectoral levels
5. Establish a long-term goal and other policy signals that reinforce broader shifts in finance and technology

If we create a system that consolidates the progress made so far and, crucially, ramps up climate action in the next five years, COP21 will indeed become a decisive turning point in the broader transformation needed to achieve a safe climate.

So, how do we accelerate climate action between 2016 and 2020?

Five 'ratchets' will be key, and COP21 can decisively strengthen each of them.

Ratchet 1: Raise national contributions in regular, five-year cycles

For the first time in the quarter-century history of climate negotiations, all major emitters have pledged to reduce emissions at COP21. Because emissions anywhere affect the atmosphere everywhere, a successful climate regime must include all significant polluters. But this broad participation has arguably come at the expense of depth, at least in short term. To get everyone on board, it has been necessary to allow countries wide scope to determine the ambition and nature of their pledges. Without such flexibility, we would run the risk that important countries would abandon the post-Paris regime in the years to come, as they did the Kyoto Protocol (e.g. following economic crises, changes in government, etc.).

At the same time, it is crucial that the Paris treaty creates a clear expectation that countries will increase their pledges over time, and put in place a system that helps them do so. Agreement on these points is growing, but two principles are critical.

- **Countries should establish a regular and short cycle for submitting new pledges, ideally at least every five years until the emissions gap is closed.** The expectation to update national goals on a relatively frequent basis will prevent unambitious targets from being locked in. Even more significantly, frequent updates can help create a dynamic of "repeated play" that increases countries'

Ratchet 2: Practical international review of national action

While the new climate regime gives countries considerable scope to determine their own contributions, these national pledges will be subject to some form of international review. Thus far, countries have disagreed sharply about how this review should work, with those concerned about compliance and enforcement favouring strong international rules to ensure accountability, and others concerned about protecting sovereignty preferring less external scrutiny of domestic data and targets.

Countries can overcome this divide by turning their focus from abstract concepts like accountability and autonomy to the practical question of emissions reductions. Countries should ask: under what conditions can the international review process maximize the likelihood that countries will implement their pledges and increase them over time? It seems unlikely that the same process will be equally effective for all countries. Broadly, two models of review can be distinguished.ⁱⁱ

- **Compliance review:** Under a 'compliance' model, countries would be obliged to report verifiable data on

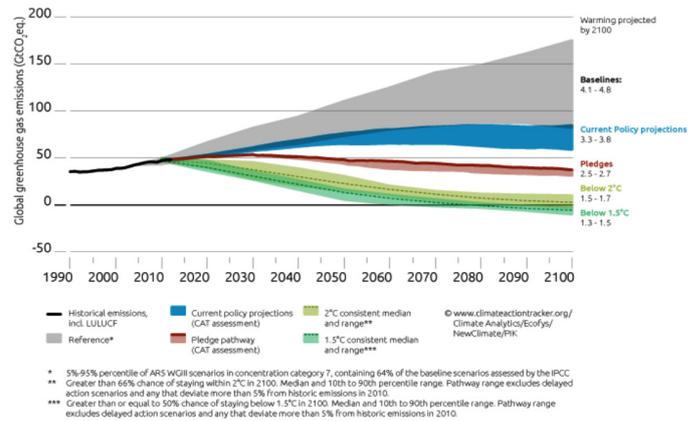


Figure 1: Paris pledges make important progress but still leave a sizeable emissions gap (source: Climate Action Tracker, www.climateactiontracker.org)ⁱ

incentives to cooperate over time, as in the trade regime. Countries can take or leave a one-off global deal. But on-going rounds of pledging allow them to condition their future cooperation on other countries' behaviour in the present. That is, if country A cooperates this time, it can expect country B to do the same in the future, and vice-versa. Conversely, if country A does not cooperate in this round, it can expect country B to also withhold cooperation in the subsequent round as a punishment. By structuring countries' incentives in this way, a short and regular pledge cycle helps create a dynamic of self-enforcing reciprocal cooperation and, over time, trust.

- **Countries must commit not to reduce the ambition of their pledges over time.** Countries should make each new pledge at least as ambitious, in terms of absolute emissions reductions, as their previous pledge.

their progress. Pledges would be assessed independently and benchmarked against other countries and historical patterns to determine if a country's pledge qualifies as a fair share. This kind of review, similar to processes in the human rights regime, works best when there are strong environmental ministries, civil society groups, or other pro-compliance groups within countries. International review processes can strengthen the voice of these groups in domestic political systems, promoting implementation and increasing ambition over time. But for countries without such groups, or with more closed domestic political systems, this kind of review is unlikely to have much practical effect.

- **Facilitative review:** A second, alternative model of review can be described as a 'facilitative' model, common in technical cooperation processes like those within the OECD. Here the emphasis is less on holding countries to account and more on trouble-shooting problems as they arise. And for countries that have made their more ambitious pledges conditional on receiving

international support, the review process would provide an opportunity to discuss way to reach the upper limit of what countries can achieve. Again, countries would be required to provide information on their progress toward their pledges, but the aim would be to identify barriers and, importantly, ways to overcome them. Linking this problem-solving approach to concrete climate finance and technology exchange will be crucial, suggesting that the UNFCCC technology mechanism (Clean Technology Centre and Network) and the Green Climate Fund could play an important function supporting the review process. This type of review is best suited to countries with lower bureaucratic capacity and smaller pro-climate constituencies.

Given these two ways in which review can promote reductions, the post-Paris review mechanism must be sufficiently multi-functional to apply the combination of

“compliance” and “facilitative” review that will be most effective for any given country. This will require a relatively sophisticated degree of political intelligence, expertise, and nuance on the part of the reviewers. One way to achieve this would be to appoint a panel of trusted experts to review country pledges. This panel could work with each country individually to design an appropriate review with a mix of compliance and facilitative features. In this process, the experts should be guided by the longstanding principle of differentiation under the climate convention. While grouping countries into fixed categories would undermine that flexibility that allows for effective and practical review, it would make sense for countries with greater responsibilities and capabilities to be reviewed more attentively. Again, giving reviewers flexibility to tailor the review process to each country can help achieve this end.

Ratchet 3: The groundswell of climate action from cities, companies, regions, and others

Alongside countries’ pledges, all over the world, thousands of cities, regional governments, private companies, investors, civil society groups, and others are taking concrete steps to reduce emissions and increase climate resilience. Around COP21, this extraordinary groundswell of ‘bottom up’ climate action is reaching an unprecedented scope, and will for the first time represent a core pillar of the conference of the parties. The French hosts, in partnership with their Peruvian predecessors, the UN Secretary General, and the UNFCCC have created the Lima Paris Action Agenda to galvanize initiatives from cities, companies, and other actors. These and other actions are being tracked and showcased on the UNFCCC’s NAZCA portal, an online aggregator of climate action from all actors.

This groundswell from cities, regions, business, and others ratchets up climate action in three ways:

- **Direct impact on emissions:** Recent studies, looking at just a handful of the hundreds of initiatives, estimate that they can remove the equivalent of around three billion tons of CO₂—more than India emits each year—from the atmosphere before countries even begin to implement their pledges in 2020.ⁱⁱⁱ These reductions make it easier for countries to meet and exceed their pledges, creating more scope to go further, faster toward the 2C target in the future.
- **Innovation and diffusion:** The indirect effects of the groundswell may be even more consequential. Action by cities, companies, and others allow policymakers and businesses at every level to experiment with new policies, measures, and technologies that can then diffuse around the world. City networks, for example, have been instrumental in developing and diffusing next-generation transportation systems. As leading businesses

and jurisdictions develop new tools to reduce emissions and bring them to scale, they reduce the cost of doing so for their less ambitious peers around the world. This combination of innovation and diffusion gives groundswell initiatives the kind of transformational potential needed to address the problem.

- **Building political will:** The groundswell of action has crucial political effects, creating and strengthening diverse constituencies for climate action all over the world. As more and more businesses, cities, regions, and others act on climate, pressure grows on their peers to follow. Moreover, as more businesses and sub-national jurisdiction in a country adopt ambitious policies, the more incentives national governments will have to strengthen national-level climate policies. In this way, “bottom up” climate action is not a substitute for national policy, but a complement and catalyst for it.

To maximize the potential of the groundswell, governments should build on the efforts that France, Peru, and the UN have made thus far to recognize and support bottom up action in and alongside the UNFCCC process.^{iv} At COP21, governments can decide to continue the “Action Agenda” through 2020 by appointing High Level Champions, supported by a team seconded from existing institutions, to orchestrate new initiatives and help implement and expand existing ones. Using the technical expert meetings in the UNFCCC to connect these concrete steps to actionable policy options governments and others can take will help them diffuse further. Such support from the intergovernmental process will be crucial for ensuring that the groundswell of climate action from every level of government and every sphere of society continues to expand at an exponential rate.

Ratchet 4: Bilateral, mini-lateral, and sectoral diplomacy

Though the climate regime has shifted from a “global deal” model to a system of “nationally determined” contributions, diplomacy still matters enormously. In the lead-up to COP21, bilateral deals between large emitters (notably: US-China, US-India, EU-China, etc.) have played a decisive role in raising the ambition of national contributions. These kinds of deals help governments answer domestic critics of stronger climate policy (who might otherwise fear that their government is giving too much away without getting anything in return), and allow leading countries to apply a wide range of sticks and carrots to bring along more recalcitrant countries. After Paris, it will be essential for national leaders to keep climate at the top of their diplomatic agendas. A requirement that national pledges be updated every five years, mentioned above, will provide a regular mechanism for this to happen.

Alongside bilateral diplomacy, a number of other groupings and institutions can provide a similar effect. This year, for example, the G7 affirmed the importance of long-term decarbonisation. Dozens of other international institutions have tackled more specific aspects of the climate problem; the G20 has raised the issue of fossil fuel subsidies; the Montreal Protocol has begun to address HFCs, a potent greenhouse gas; and the Climate and Clean Air Coalition has attacked black carbon and other so-called short-lived climate pollutants. Future deals may be struck in the realm of aviation and maritime shipping. Like action by cities, companies, and others, these “mini-lateral” and sector-specific deals provide concrete building blocks for countries to reach and exceed their national pledges, making it more likely to ratchet up action in the future. They are additive and complementary to the UNFCCC process, not an alternative to it.

Ratchet 5: A long-term goal and other signals that reinforce broader shifts in finance and technology

To succeed, COP21 must come to mark a decisive turning point toward a low carbon world. That transition will require top-level political decisions, but it also depends on billions of smaller choices made by mayors, CEOs, investors, inventors, entrepreneurs, and even individual homeowners, farmers, commuters, and consumers. These lower-level choices are of course strongly shaped by policy, but can also have a force of their own, particularly when moving in the same direction. In this way, climate policy is less like a traditional environmental regulatory issue, in which governments “command and control” outcomes, and more like monetary policy, in which governments rule less through fiat and more by credibly shaping the market’s collective expectation about the future.

The climate regime should therefore aim to create a positive feedback loop between policy and the billions of climate-relevant decisions made throughout the economy and society at large. As policy strengthens, it creates incentives for more pro-climate choices to be made at all levels; and as more decisions move toward low carbon outcomes, governments will find more support for, and less opposition to, increasingly transformative policies. In this way the low carbon transition becomes a self-fulfilling prophecy.

- **Long-term goal:** One concrete way for countries to reinforce the expectation of an inevitable transition at COP21 is to reaffirm that limiting temperature changes to 2C, as agreed, means making the economy carbon-neutral by the second half of this century. A clear long-term goal of this kind in the Paris agreement, even if only aspirational, sends a useful signal about the direction of travel. Similarly, governments and other actors can lay out their own long-term visions for decarbonisation, as an increasing number are already doing.^v

In addition to an overarching goal, expectation-setting is particularly important in two crucial sectors: finance and technology.

- **Finance:** The \$100 billion in climate finance that wealthy countries have pledged to mobilize, though significant, is just a small portion of the trillions that will be required to wean the economy from fossil fuels. According to one estimate, \$90 trillion will be invested in city, agriculture and energy infrastructure in the next 15 years.^{vi} To pull this stream of investment in the right direction, it is crucial to raise and effectively spend the \$100 billion in order to encourage others to follow. In a similar vein, removing the hundreds of billions spent annually to subsidize fossil fuel production and consumption would send a clear signal about where the energy industry should be shifting. At COP21 countries can make advances on both these fronts. And outside the policy sphere, the growing divestment movement, along with leading businesses and investors, helps build social and market pressure on companies and financial institutions to move toward our common goal.^{vii}
- **Technology:** Finally, shifts in policy and financing will support the development and deployment of the technologies we need to decarbonize. Already, the plummeting price of renewables and energy storage are forcing governments to rethink old ideas about the costs and benefits of aggressive climate policies. As low carbon technologies get cheaper and better, the frontier of what is politically possible will expand further, giving inventors and technology companies even more reason to innovate. Government investment in basic research can help create the knowledge and human resources needed to push technology forward in this way.

A new, catalytic climate regime

For the last quarter century, countries have failed to agree a “global deal” to stop climate change. Now, just as time is running out, they have created a new kind of regime based not on negotiated targets but on national pledges, international review, and a broader set of complementary actions from across society. This new, catalytic and facilitative model, unprecedented in global governance, is a bold experiment driven by necessity.

Can it succeed? This answer depends on whether the new climate regime can create concrete ways to ratchet up climate action over the next five years. At COP21, governments face a crucial opportunity to put in place the mechanisms needed to achieve that goal.

About the author

Dr Thomas Hale is Associate Professor in Public Policy (Global Public Policy) at the Blavatnik School of Government. His research explores how we can manage transnational problems effectively and fairly. He seeks to explain how political institutions evolve--or not--to face the challenges raised by globalization and interdependence, with a particular emphasis on environmental and economic issues. He serves on the Steering Committee of Galvanizing the Groundswell of Climate Actions (<http://www.climategroundswell.org>). For his full biography, please see: <http://www.bsg.ox.ac.uk/people/thomas-hale>

Notes

ⁱ Climate Action Tracker, “INDCs lower projected warming to 2.7°C: significant progress but still above 2C,” October 1, 2015. Available at: http://climateactiontracker.org/assets/publications/CAT_global_temperature_update_October_2015.pdf

ⁱⁱ For an overview of different review mechanisms, see Harro van Asselt, Pieter Pauw, and Håkon Sælen, “Assessment and Review under a 2015 Climate Change Agreement,” Nordic Council, March 23, 2015. Available: <http://norden.diva-portal.org/smash/record.jsf?pid=diva2%3A797336&dsid=5808>

ⁱⁱⁱ Angel Hsu et al., “Towards a new climate diplomacy,” *Nature Climate Change* 5, 501–503 (2015); United Nations Environment Programme, “Climate commitments of subnational actors and business: A quantitative assessment of their emission reduction impact,” Nairobi, June 2015. Available at: http://apps.unep.org/publications/pmtdocuments/-Climate-Commitments_of_Subnational_Actors_and_Business-2015CCSA_2015.pdf.pdf

^{iv} For more discussion and details on these proposals, see Galvanizing the Groundswell of Climate Actions, “The Action Agenda after Paris: Galvanizing Climate Action in 2016-2020 and beyond,” October 2014. Available at: <http://www.climategroundswell.org/blog-test/2015/7/30/the-action-agenda-after-paris-galvanizing-climate-action-in-2016-2020-and-beyond>; Chan et al., “Reinvigorating International Climate Policy: A Comprehensive Framework for Effective Nonstate Action,” *Global Policy*, forthcoming. Early version available: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2654214

^v See Track 0, “Who’s getting ready for zero? A report on the state of play of zero carbon modeling.” Available: <http://track0.org/works/whos-getting-ready-for-zero-full-report/>

^{vi} New Climate Economy, “Better Growth, Better Climate.” Global Commission on the Economy and Climate, September 2014. Available: <http://www.newclimateeconomy.report>

^{vii} Atif Ansar, Ben Caldecott, and James Tilbury, “Stranded assets and the fossil fuel divestment campaign: what does divestment mean for the valuation of fossil fuel assets?” Stranded Assets Programme, Smith School for Enterprise and the Environment, Oxford University, October 2013. Available: <http://www.smithschool.ox.ac.uk/research-programmes/stranded-assets/SAP-divestment-report-final.pdf>