

The Paris Climate Change Talks: *What Did the President Promise and When Did He Promise It?*

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The international climate change negotiations that took place in Paris in December 2015 have generated considerable media attention. Officially titled the *21st Conference of the Parties of the United Nations Framework Convention on Climate Change* (UNFCCC), the UNFCCC is an international treaty initiated in 1992 to cooperatively consider what countries could do to limit climate change. The parties to the convention have met annually from 1995 and are perhaps best known for the 1997 Kyoto Protocol that committed countries to greenhouse gas emission reduction targets (see http://unfccc.int/kyoto_protocol/items/2830.php).

Like most things related to climate change, assessing the merits of the agreement that was finalized on December 12 depends on whom you ask. Environmental groups have criticized the agreement for failing to ensure greenhouse gas emission reductions needed to prevent a 2 degree Celsius deviation from pre-industrial temperatures - the de-facto goal for climate policy since the 1970s. Others, including presidential candidate Marco Rubio, argue that the agreement will hurt the US economy. Then why have so many commentators called the agreement a success? Here are a few points to consider.

What is in the agreement?

If all greenhouse gas emission reduction commitments made by countries in Paris are fulfilled, the agreement would reduce the anticipated temperature increase this century by 1.5 to 2.5 degrees Celsius. This still leaves us with an anticipated increase of 3.5 degrees which is much larger than the generally agreed upon threshold of 2 degrees which is thought to trigger catastrophic and irreversible impacts from climate change. But these commitments only represent a jumping off point. The agreement also specifies five-year periods for the submission of revised commitments. **The purpose of this stocktaking and reassessment process is to ratchet up commitments in response to new technology and incorporate lessons learned.** The first stocktaking review will be in 2018, with the start date for new commitments set for 2020.

Beyond the greenhouse gas emission reduction goals, the agreement also put in place a number of elements that will aid future talks:

- 1) The agreement reaffirms the goal of limiting the global average temperature increase above the pre-industrial level to 2 degrees Celsius. In a departure, the agreement adds 1.5 degrees Celsius as an even more aspirational goal. These temperature goals have been hotly debated and some have even suggested they may not be attainable. But altering the trajectory of global climate emissions is a lot like turning an aircraft carrier – it takes time. Thus the goals are arguably less important than the scope of participation and the mechanisms for implementation.
- 2) The agreement also requires demonstrable action in the form of domestic monitoring, reporting, and verification. All countries must eventually face the same monitoring and reporting requirements, regardless of their status as a developed or developing country. The US and many other developed nations currently have monitoring systems in place. This provision helps clarify the amount of emissions coming from developing countries (for example China and India).

- 3) The agreement includes a provision for “internationally transferred mitigation outcomes.” This provision allows for international linkage of national policy instruments such as the expansion of national carbon markets to an international level. This brings down the cost of compliance by allowing firms in developing nations to purchase carbon reduction credits from developed nations where less costly carbon emission reduction activities have not yet been undertaken. In addition to lowering overall program costs, this incentivizes participation by developing countries by rewarding these countries for undertaking carbon emission reduction activities. While the UNFCCC has been focused on establishing emission reduction targets in an international setting, these internationally transferred mitigation outcomes also facilitate the development of emission reductions policy instruments in an international setting as well.

Why should we expect this agreement will be more successful than past agreements?

Lessons appear to have been learned from past mistakes. First, the **Paris agreement is built on bottom-up emission-reduction contributions**. The bottom-up contributions, known as “Intended Nationally Determined Contributions” (INDCs), are national targets and actions that arise from national policies. This is in stark contrast to past agreements that have been composed of top-down emission reduction obligations that were not necessarily tied to national commitments.

Second, the **Paris agreement eliminated the distinction between developed and developing countries**. Under the Kyoto Protocol, only developed countries had mandatory emission reduction obligations. This distinction between developed countries with emission reduction obligations and developing countries with no obligations was intended to address a principle underlying the UNFCCC that countries should act to “protect the climate system ... on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities.” While noble, this distinction became untenable. Developing countries are responsible for the vast majority of the growth in greenhouse gas emissions. Developed nations (for example the US) refused to ratify the Kyoto Protocol citing the lack of emission-reduction responsibility in developing countries. Many countries recognized that any agreement that did not include the US would lose credibility.

Third, the **Paris agreement resolved two unproductive disagreements that have derailed previous talks**. The first disagreement centered on whether developed countries would be liable for bad weather events in developing countries. In previous climate talks, developed countries had agreed to financial aid to fund mitigation (funding to help developing countries transition to a low carbon economy) and adaptation (funding to help alleviate impacts from climate change). But developed countries worried that agreeing to financial aid to help compensate for irreparable losses and recoverable damages that occur when storms strike developing countries (commonly known as funding for “loss and damage”) would imply they accept liability for these events. There was agreement in Paris that “loss and damage” could not be used as a basis for liability of compensation. The second disagreement revolved around the insistence that the INDCs be binding under international law. As an international law, the Paris agreement would have required Congressional approval that looks unlikely. The lack of support in the Senate also contributed to the lack of US participation in the Kyoto Protocol. By keeping the INDCs as voluntary contributions, delegates seemed to recognize that a voluntary agreement with US involvement was preferred to a binding agreement without the US.

These new aspects helped elicit much broader involvement among member countries than has been achieved in the past. Remarkably, **186 of the 195 members of the UNFCCC submitted INDCs by the end of the Paris talks, representing some 96% of global emissions**. Contrast that with the Kyoto Protocol, which now covers countries (Europe and New Zealand) accounting for no more than 14% of global emissions (and 0% of global emissions growth).

What did the President promise and when did he promise it?

Over the past year, nearly every member country of the UNFCCC has submitted a climate plan. The US plan has three key parts:

- ***Limit carbon dioxide emissions from existing power plants in the US.***
In 2012, 32% of total US greenhouse gas emissions originated from electricity generation. The part of the US plan focused on electricity generation, known as the Clean Power Plan (CPP), strives for a 32% reduction in carbon dioxide emission from the nation's existing power plants by 2030, compared with 2005 emissions. As part of this plan, states must submit final plans to achieve their state-specific emission reduction goals by 2018 with progressively more stringent interim emission goals between 2022 and 2029. (For more on the Clean Power Plan see <http://bakercenter.utk.edu/wp-content/uploads/sites/4/2015/08/OnPoint3-15.pdf> and <http://bakercenter.utk.edu/wp-content/uploads/sites/4/2015/08/OnPoint1-15.pdf>)
- ***More stringent fuel economy standards for cars and light trucks.***
The transportation sector accounted for 28% of total US greenhouse gas emissions in 2012. In 2009, President Obama proposed a new national fuel economy program which would increase the average fuel economy standard for all vehicles from 25 mile per gallon to 35.5 miles per gallon by 2016. In 2011, President Obama announced an agreement with thirteen large automakers to increase fuel economy to 54.5 miles per gallon for cars and light-duty trucks by model year 2025.
- ***\$3 billion in financial aid by 2020 to assist developing countries in moving away from carbon-intensive energy sources and adapt to climate change impacts.***
This pool of public and private money, combined with contributions by other countries, raised the total amount contributed to \$10 billion. The stated goal in the Paris agreement is to jointly provide USD 100 billion annually by 2020 for mitigation and adaptation.

What will the US plan cost?

No one knows for sure and few estimates have yet to surface. The World Resources Institute, an environmental think tank in Washington, D.C., estimates the cost at a \$170 billion decrease in US gross domestic product in 2030, or about 0.7% of the total economic output that year. This cost would likely decline over time as new technology emerges in response to the plan and the benefits of the plan (for example improved public health and fewer impacts from climate change) begin to materialize.

The Environmental Protection Agency (EPA) estimated the cost of the CPP, the cornerstone of the plan the US submitted to the UN, at between \$28 billion and \$39 billion in 2030, or 0.1% to 0.2% of projected GDP. The CPP likely signals a loss in coal-related jobs but the US Energy Information Administration (EIA) has stated that the CPP will have no appreciable effect on overall employment.

Will the US be able to deliver on its commitments?

There was a concerted effort at the Paris talks on the part of the US negotiators to avoid making the INDCs binding under international law. This strategy means Congress can't do much to prevent the US plan now. But a new President may reverse course and renege on the Paris agreement. Many feel this is unlikely since it would undermine the ability of a sitting US President to negotiate with foreign representatives on a range of global policy concerns.

While a direct challenge to the Paris agreement is unlikely, there are already legal and political challenges to components of the US climate plan that was submitted to the UN. For example, a group of state attorneys general, business groups, coal companies and electric utilities have filed suits opposing the CPP, the cornerstone of the US plan to deliver on its Paris commitments. If challenges to the CPP are successful, the US will have a hard time fulfilling the commitments it made in Paris. The EPA has been sued many times over its authority to regulate greenhouse gas emissions (GHG) emissions and in most cases the EPA's authority was upheld in court. But this does not mean that the plan itself would withstand legal challenges.

Perhaps the more immediate threat is delayed implementation of the CPP due to legal challenges. Virtually all suits filed against the CPP have requested a stay of implementation which would delay implementation by two to three years. This would make it harder for the US to meet the deadlines of the Paris agreement. It may also make it easier for a Republican president to undo the plan in 2017 if states have not already finished developing implementation plans (every Republican presidential candidate for the 2016 election has stated opposition to the CPP).

Congress has also threatened to withhold US funding for the Green Climate Fund. President Obama asked for \$500 million as a first installment for the fund in his 2016 budget request. In December, the budget bill was passed by Congress which greenlights this first installment to the fund. However, this subplot in the ongoing budget battle may emerge again in the future.

Bottom-line

It will take years before we know if the agreement reached in Paris was successful. Since the meat of the agreement hinges on voluntary contributions, a key question is whether countries will deliver on their promises. This compliance uncertainty is in addition to the general uncertainty about the *economic* impacts of climate change that always seem to undercut any climate change agreement. All we know now is that the **Paris agreement was an improvement over past efforts and it makes *potential* action on climate change easier to organize and implement at the international level.**