

# Making the Paris Agreement Work

*The challenge now is implementation. Creating a race to the top — an approach that could incentivize greater ambition — will require all elements of civil society, including environmental professionals, to reach the accord's ambitious but eminently realizable goals*



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Last year's Paris Agreement of the parties to the 1992 U.N. Framework Convention on Climate Change is an extraordinary achievement. That the conference organizers could get over 190 countries — which had been quarrelling with each other through 20 prior Conferences of the Parties — to unanimously support an agreement of substance on a subject as complex, huge, costly, and politically difficult as tackling climate change is nothing less than a miracle.

The challenge now is implementation, and more. In the run-up to the Paris conference, countries submitted Intended Nationally Determined Contribution pledges to take specific actions to reduce greenhouse gas emissions. The Paris Agreement is based on those INDCs. They “present a real increase in the ambition level compared to a projection of current policies,” the U.N. Environment Program said in its “2015 Emissions Gap Report.” As the report adds, however, the INDCs represent only about half of the reduction required by 2030 if the world is to have a likely chance of keeping the global temperature increase below 2 degrees Celsius. A temperature increase above that level is widely recognized as dangerous, even disastrous — and the temperature increase thus far is already about half the way there.

In recognition of this gap, the Paris Agreement includes processes to ratchet up the level of national ambition. It also invites and encourages widespread participation by every segment of civil society — including business, nongovernmental organizations, agriculture, universities, as well as state, city, and other local governments. Lawyers and other environmental professionals, including economists, engineers, scientists, regulators, consultants, and risk assessors, have an essential role to play. In fact, an “all hands on deck” approach is necessary to make the agreement work. This is particularly true because the unfolding science in the months since the agreement was signed indicates that climate change is more serious and urgent than we may have imagined.

This article will briefly outline the key elements of the Paris Agreement as well as the daunting challenge of meeting its goals. It will suggest the broad elements of an approach that could encourage or incentivize parties to greater ambition, creating a race to the top. It will also describe ways that all elements of civil society, including lawyers and policymakers, can help make the agreement work. The following six elements are necessary, but not exhaustive:

## Achieve the targets set in INDCs

An obvious first step is for nations to actually accomplish what they promised to do already. This is not nearly enough, but it is also utterly necessary. Because the agreement is based to some degree on reciprocity, nations that implement their INDCs will encourage others to do likewise. The inability or unwillingness of key countries to achieve the goals in their INDCs could undermine efforts in others. And higher levels



of ambition cannot be achieved if countries cannot or will not meet their INDC commitments.

The short-term objective of the U.S. INDC is “to achieve an economy-wide target” of reducing its GHG emissions by 26 to 28 percent below its 2005 level in 2025. This objective translates roughly to 14 to 16 percent below 1990 levels, which is short of the 25 to 40 percent reduction from 1990 levels that the Intergovernmental Panel on Climate Change said in 2007 was needed for developed countries. Still, the United States explained that this objective “is consistent with a straight line emission reduction pathway from 2020 to deep, economy-wide emission reductions of 80 percent or more by 2050.”

The United States also explained that the short-term objective is based on actions that had already been taken, or were about to be finalized, including strengthened efficiency standards for motor vehicles, household appliances, and industrial equipment; methane emission standards for landfills as well as oil and gas facilities; and EPA’s Clean Power Plan. Since

Paris, the Obama administration has taken additional steps that are consistent with the overall goal of the agreement, such as a moratorium on new coal leases on federal lands as part of a comprehensive review of that program. Still, the United States must double its pace in reducing carbon intensity to reach the 2025 goal, according to Energy Secretary Ernest Moniz.

All of this, of course, is generating enormous push back. One of the key actions in the U.S. INDC, the Clean Power Plan, would reduce GHGs from elec-

tric-generating facilities by 32 percent from 2005 levels by 2030. Before the U.S. Court of Appeals for the District of Columbia Circuit had even heard oral argument on legal challenges to the CPP, the Supreme Court in February stayed its implementation until all challenges are resolved. Even if EPA ultimately prevails, the stay indicates the need for more serious consideration of alternative approaches. Some of the nation’s leading legal scholars published a paper in early 2016 arguing that the agency should use Section 115 of the Clean Air Act to regulate greenhouse gases through that law’s State

Implementation Plan process. Whatever happens to the CPP, the United States and other countries must — at a minimum — meet their INDC commitments.

## Set and achieve more ambitious short- and long-term national goals

The Paris Agreement contains ambitious international goals. It aims to “hold the increase” in the global average temperature to well below 2 degrees above pre-industrial levels and “to pursue efforts to limit” the temperature increase to 1.5 degrees, “recognizing that this would significantly reduce the risks and impacts of climate change.” The parties also aim to achieve “rapid reductions” in GHG emissions “so as to achieve” net zero GHG emissions (“a balance between anthropogenic emissions by sources and removals by sinks”) between 2051 and 2100.

An enormous challenge for the world after Paris is the magnitude and urgency of limiting global green-

house emissions to levels that will limit warming to non-dangerous levels. The Paris Agreement itself reflects a shift in understanding what a non-dangerous level means — from the 2 degree temperature increase that had previously been employed to “well below” 2 degrees and a strong suggestion that 1.5 degrees would be better. The “2015 Emissions Gap Report” concluded that limiting warming to 1.5 degrees with greater than a 50 percent probability of success requires first that total carbon dioxide emissions must be net zero between 2045 and 2050, and second that all GHG emissions (not only carbon dioxide but also methane, nitrous oxide, and fluorinated compounds) must be net zero between 2060 and 2080. Although these goals require staggering GHG emission reductions for the entire world, developed countries need to be even more ambitious to satisfy their obligation to reduce their GHG emission on the basis of equity and common but differentiated responsibilities, based on commitments they made in the framework convention in 1992.

Climate change is also occurring with growing speed and intensity. The year 2015 was easily the warmest year on record, and 2016 is on track to be warmer still. Recent data from the National Oceanic and Atmospheric Administration indicate that sea levels could rise as much as nine feet by 2050–60, which is higher and sooner than previously thought.

The Paris Agreement processes for ratcheting up the level of ambition provide a way to address these challenges. Beginning in 2020, and every five years afterwards, each country is to “prepare, communicate and maintain successive nationally determined contributions that it intends to achieve.” These, of course, are in addition to its pre-Paris pledge or INDC. The new pledges are to “represent a progression” beyond a country’s current pledge, and are to “reflect its highest possible ambition.” The agreement also includes provisions for standardized accounting for each nation’s reductions that will enable measurement of its overall achievement. Beginning in 2023, and every five years afterwards, the Conference of the Parties is also to “take stock” of “collective progress” in achieving the purpose of the agreement to assess whether enhanced “international cooperation for climate action” is needed.

In setting their INDCs leading up to Paris, countries described what actions they intended to take to get to a certain level of emissions reductions by 2025 or 2030. Because those reductions are not nearly enough, nations must establish and meet more ambitious short-term goals. The long-term objective, moreover, needs to be even deeper cuts by 2045, 2050, and afterwards.

But what should a nation’s long-term goal be?

The U.S. INDC is “consistent with,” but does not directly commit to, “deep, economy-wide emission reductions of 80 percent or more by 2050.” But a more ambitious long-term goal is almost certainly needed. The climate convention states that developed countries should take a leadership position because of their superior resources and technology, and also because of their greater historic contribution to the increase in atmospheric GHG concentrations. The new Nationally Determined Contribution, or NDC, as the post-Paris pledges are called, which countries are to submit by 2020, should thus be based on equity as well as their “common but differentiated responsibilities and respective capabilities” — the term used by the climate convention to express both the duty of all nations to address climate change and their unequal abilities to do so.

For the Paris Agreement’s periodic stock-takes and transparency provisions to work effectively, each nation will need to submit sufficient information in support of its new NDC so that governments, businesses, and nongovernmental organizations can evaluate the actual factors it considered in formulating it. The Paris Agreement, in fact, requires NDCs to contain “information necessary for clarity, transparency and understanding.” These factors include the actual temperature limit the NDC is designed to achieve in cooperation with others; the amount of carbon that can still be emitted without exceeding that temperature limit; what fraction of the carbon budget it allocated to itself; and the equity factors the nation considered when it allocated that portion of the global carbon budget to itself. When nations submitted their INDCs before Paris, by contrast, many claimed that their commitments were ambitious and fair without any explanation of these points.

In its most recent assessment, the Intergovernmental Panel on Climate Change explained four equity principles that “are important in establishing expectations of what may be reasonably required of different actors.” It said that these are understood well enough to “put bounds on the plausible interpretations of ‘equity’ in the burden sharing context.” The first of these equity principles is responsibility, which is usually understood to be historical responsibility for current elevated greenhouse gas concentrations. The second is capacity, or the economic ability of a nation to reduce its emissions. The next is equality, or the equal right of each citizen to use the atmosphere as a sink for his or her greenhouse gases. The fourth and final equitable principle is the right of poor countries to pursue economically sustainable development.

Although reasonable people can disagree about what each of these principles means in any particu-

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# Nations Depend on Business and Local Action

**T**he final night of the Paris climate change negotiations, I was proud to watch the U.S. delegation walk in to a standing ovation as a member of the “high ambition coalition.” Not only had the nations of the world managed to create the strongest compromise that was politically possible, but my country’s representatives — despite the complex dynamics at home — were supportive participants in making that happen.

The Paris Agreement represents a major achievement for multilateralism and a step forward on climate change. The high ambition coalition, led by the Marshall Islands, helped to bridge traditional negotiating blocks. The agreement’s voluntary approach builds on lessons learned from the Kyoto Protocol and Copenhagen negotiations.

The agreement’s goals are more ambitious than its target of keeping warming below 2 degrees. It has mechanisms for ramping up ambition, an article on loss and damage, and provisions aimed at advancing adaptation, financing, and technology transfer.

Although current commitments under nation-state pledges (called NDCs) are not yet nearly enough to meet the agreement’s goals, which are themselves not ambitious enough to protect the most vulnerable, they represent an important start. The key question, of course, is how to get from that start to meeting those goals. Implementing current NDCs will be politically complex, and those commitments still need to be ramped up further. A key piece of the U.S. NDC, for example, is the controversial Clean Power Plan. Whether or not this particular regulation is ultimately upheld, U.S. implementation depends on a continued energy-sector transition and an interweaving of energy and environmental law.

Implementation also hinges, however, on a “high ambition coalition” that goes far beyond the nation-states that joined that group. Many networks of subnational governments and businesses have been collaborating for years to increase global ambition on climate change, and making their own pledges during conferences of the parties. Their efforts will be critical to nation-states’ ability to meet the targets in the NDCs.

These international, national, and subnational networks have played key roles in ramping up needed activity and demonstrating how action can create economic win-wins. A few examples of international networks that organized local government focused on local action illustrate this phenomenon. The International Council for Local Environmental Initiatives and a group known as United Cities and Local Governments launched the Local Government Climate Road Map at the 2007 Bali negotiations. This effort has included both advocacy for subnational participation in the international agreements and organized action by those smaller-scale governments.

The C40’s 83 mega-cities, which represent 600 million people and 25 percent of global GDP, have taken 10,000 actions to address climate change; its new Technical Assistance Program helps cities develop measurement, targets, and planning. The Compact of Mayors, established at the 2014 UN Climate Summit, involves a broader group of 510 cities in pledges, tracking, and action. Its May 2016 report argues for augmenting local powers, financing opportunities, and national governmental support.

While I have argued elsewhere that these local climate networks’

fuller success hinges on more effective inclusion of different types of suburban cities, the urban emissions reductions fostered by these networks will help national governments meet ambitious targets.

Networks are similarly working to reduce corporate emissions and support the energy economy’s transition. In the lead up to the Paris negotiations, over five hundred organizations committed to eliminate fossil fuel investments as part of Divest for Paris, and more than 150 companies joined the American Business Act on Climate Pledge. On April 20, 2016, two days before 174 countries plus the European Union signed the Paris Agreement, 110 companies — including IKEA, PG&E, General Mills, and Starbucks and organized by a coalition that includ-

ed Ceres and the World Wildlife Fund — released a statement supporting the Clean Power Plan and investment in a low-carbon economy.

These networks are no panacea. Like nation-states, subnational governments and business-

es may not always follow through with their pledges; measurement and enforcement are complex; and investment in fossil fuels remains high. But despite these limitations, their high ambition moving forward, like that of the nation-states, is crucial to implementation of the Paris Agreement and to broader progress on climate change.



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lar context, not all claims made by nations about the fairness of their GHG emissions targets are entitled to respect. As economist Amartya Sen has explained, people will often agree on specific instances of injustice without fully agreeing on what perfect justice requires. By simply disclosing their views of what fairness and equity require, and thus enabling frank and constructive discussion, nations can make it more likely that the Paris Agreement will be effective. Yet this is only likely to happen if civil society — governments and NGOs, business, media, the public, and others — insist on, create, and foster a public dialogue within and among countries on the actual basis for each country's NDC.

### **Create technical, policy, and legal pathways for decarbonization**

The zero emissions effort is essentially unprecedented, and it is difficult to point to prior experience for detailed guidance. Fortunately, the Deep Decarbonization Pathways Project, which is organized by the Sustainable Development Solutions Network and the Institute for Sustainable Development and International Relations, has outlined technical and policy approaches to decarbonization for 15 countries, including the United States. The project was undertaken “to understand and show how individual countries can transition to a low-carbon economy” based on the limit of 2 degrees. For the United States, a key finding is that reducing GHG emissions by 80 percent from 1990 levels by 2050 is technically feasible and would cost only 1 percent of U.S. GDP. Doing so, it said, would require almost complete decarbonization of electricity by 2050, deploying roughly 300 million alternative fuel vehicles (electricity or hydrogen) by 2050, and doubling electrical generation through a vast increase in either renewable energy or carbon capture and sequestration.

This scenario makes it easier to understand what decarbonization would mean for the United States. But it does not describe the particular laws or types of laws that would be needed to get to those outcomes. Decarbonization is highly unlikely to happen at the national level unless it is translated into a supportive legal structure. What legal framework, for example, would be needed to get from 54.5 miles per gallon for new vehicles in the United States in 2025 (the current fuel economy standard) to 300 million alternative fuel vehicles by 2050? Legal scenarios about different laws or combinations of laws would make it possible for decisionmakers and the public to visualize what the choices are, and therefore easier to make better choices. Michael Gerrard, who directs the Sabin Center for Climate Change Law at Colum-

bia Law School, and one of us [John Dernbach] have begun work on an edited volume that would identify and analyze a wide variety of legal pathways to decarbonization in the United States. Similar efforts in other countries would likely be very helpful.

### **Create a race to the top in reducing GHG emissions**

This is only likely to happen if governments as well as businesses, NGOs, and the public accelerate the transition from conventional development to sustainable development, particularly in the energy sector. Sustainable development — based on energy efficiency and conservation as well as renewable energy — produces more economic, security, social, and environmental benefits, and has lower costs, than conventional fossil fuel development. Reductions in GHG emissions also produce other benefits — co-benefits — that are experienced locally, including economic development, job creation, reduced energy costs, and improved public health. Designing legal measures that maximize these co-benefits is a key element in getting these measures adopted, successfully implemented, and keeping them.

This is essential in developing countries. More than 85 percent of the global increase in energy consumption between now and 2040 is projected to come from developing countries, and China and India alone are expected to account for half of that. China's support for reductions in GHG emissions is based in no small part on rising concern by its citizens over the public health effects of burning coal for electricity.

Developing countries are much more likely to move in this direction, however, if developed countries lead the way. Germany (world's fourth-largest economy) and California (seventh-largest), which are already working toward the goal adopted in Paris, illustrate the role of sustainable development in this leadership effort. California aims to reduce GHG emissions by 80 percent from 1990 levels by 2050. Its Global Warming Solutions Act of 2006 establishes a cap-and-trade program as part of a comprehensive approach to address GHG emissions, and it has in place a longstanding set of electricity efficiency laws. Germany's goal is to reduce GHG emissions by 80 to 95 percent from 1990 levels by 2050. It participates in the EU Emissions Trading System, launched in 2005, which covers about 45 percent of the country's GHG emissions. Since adoption of its Renewable Energy Sources Act in 2000, almost 30 percent of the country's electricity now comes from renewable sources. Both claim significant job creation, economic development, and environmental and other benefits from their decarbonization efforts. The old

frame — that people must forfeit their wellbeing to address climate change — is being refuted not simply with arguments but with evidence.

## **Widespread public participation and support**

The German government held dialogue forums in 2014 and 2015 on decarbonization of its economy with its states, local authority associations, and social stakeholders, and involved them “early on in the search for suggestions for measures in all sectors.” At a side event on the German decarbonization strategy at the Paris climate conference, representatives of the German government, industry, and civil society organizations unanimously spoke on behalf of that strategy and what they were doing to assist in the effort.

In the United States, by contrast, the national Republican Party leadership appears virtually united in its opposition to serious action on climate change (at least in public). There will be nine presidential elections between now and 2050, including the 2016 election. The United States cannot hope to achieve a significant long-term emissions reduction goal if there is going to be a national debate every four years about whether human-caused climate change is even real. A way must be found to fully and constructively engage Republican Party leaders in a way that also seriously addresses climate change.

One such approach is to use a carbon tax as a substitute for the Clean Power Plan. Jerry Taylor, who heads the Niskanen Center, a libertarian think tank, is an advocate for this approach. After decades of fighting climate science on behalf of the Cato Institute, he became convinced that human-caused climate change presents substantial risks to human well-being and property. He also sees that, for a variety of reasons, EPA regulation of greenhouse gases is here to stay. As a libertarian, he believes a carbon tax — with the proceeds remitted to taxpayers and not used to balance the budget — would be better than government regulation. Other ways to address this issue — via existing Republican leadership or at the ballot box — are suggested by Gallup polling data in March. A record number (65 percent) of “Americans now say increases in the Earth’s temperature over the last century are primarily attributable to human activities rather than natural causes,” and a significantly increased but lower number of Republicans (40 percent) feel the same way.

## **A global social movement**

The goals and processes established by the Paris Agreement both require and encourage a global

movement for a decarbonized and sustainable society. They provide a common purpose and organizing framework around which many actions from different sectors can be conducted. They should encourage or prod governments to be more ambitious over time, without being prescriptive about what they should do. They will provide information to governments and others about what other governments are actually doing, as well information about the effectiveness and impacts of particular laws and policies. This information will be public, which means that governments are more likely to honestly and openly share what they are doing.

Already, the Paris Agreement has inspired a variety of pledges and actions by entities that are not national governments to supplement national pledges; create and expand international partnerships to reduce greenhouse gas emissions (ranging from the Compact of Mayors to the global industry Cement Sustainability Initiative); create new legal and policy tools; develop and deploy new, less expensive, and more effective technologies; redirect investment from fossil fuels toward alternative energy; and in many other ways accelerate the transition to a sustainable future. The Non-State Actor Zone for Climate Action, which is organized under the auspices of the annual U.N. climate change conferences, reports that there are public pledges to reduce greenhouse emissions by 2,253 cities, 2,078 corporations, 433 investors, 150 regional governments, and 235 civil society organizations. Citizens, businesses, and NGOs should also prod their governments to adopt and implement significant carbon reduction programs.

Lawyers and other environmental professionals have a crucial role to play. The Paris Agreement has major implications for a wide variety of clients. Environmental professionals are needed to advise clients on what the agreement means and both the risks and opportunities it presents. The Paris Agreement almost certainly requires changes in law at all levels of government as well as changes in private governance (including private standards and certification systems, private investor initiatives, corporate sustainability goals, and supply chain contracting requirements). Lawyers are needed to draft and, along with other environmental professionals, help implement those laws. Because the climate is changing, lawyers need to advise clients on a wide range of adaptation activities. The ethical imperative underlying the climate change issue also suggests the value of considering changes in the lawyer’s codes of professional responsibility. Environmental lawyers and other professionals helped pioneer an earlier environmental movement; they must help lead a new movement to successfully implement the Paris Agreement. **TEF**