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Climate Change: Frequently Asked Questions about the 2015 Paris Agreement

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September 1, 2016

Congressional Research Service

7-....

www.crs.gov

R44609

Summary

Experts broadly agree that stabilizing greenhouse gas (GHG) concentrations in the atmosphere to avoid dangerous GHG-induced climate change could be accomplished only with concerted efforts by all large emitting nations. Toward this purpose, delegations of 195 nations adopted the Paris Agreement (PA) on December 12, 2015. The PA outlines goals and a structure for international cooperation to slow climate change and mitigate its impacts over decades to come.

The PA opened for signature by Parties to the United Nations Framework Convention on Climate Change (UNFCCC) on April 22, 2016, at U.N. headquarters in New York City. Heads of state and ministers from more than 175 governments signed the PA, a record for a single day. Signature generally indicates that a nation state intends to be bound by the agreement, and it initiates the process by which a prospective Party follows its domestic procedures to ratify, accept, approve, or accede to the agreement. A government then deposits its instrument of ratification, acceptance, approval, or accession with the U.N. depositary. The PA will enter into force 30 days after at least 55 countries, representing at least 55% of officially reported GHG emissions, deposit their instruments. As of August 10, 2016, 22 states—representing 1.08% of global GHG emissions—had deposited their instruments of ratification. Based on stated intentions of many nations to deposit their instruments in 2016, including the United States and China, some experts suggest that the PA could enter into force by the end of 2016.

The PA creates a structure for nations to pledge to abate their GHG emissions, set goals to adapt to climate change, and cooperate toward these ends, including financial and other support. The negotiators intended the PA to be legally binding on its Parties, though not all provisions in it are mandatory. Some are recommendations or collective commitments to which it would be difficult to hold an individual Party accountable. Key aspects of the agreement include:

- **Temperature goal.** The PA defines a collective, long-term objective to hold the GHG-induced increase in temperature to well below 2° Celsius (C) and to pursue efforts to limit the temperature increase to 1.5° C above the pre-industrial level. A periodic “global stocktake” will assess progress toward the goals.
- **Single GHG mitigation framework.** The PA establishes a process, with a ratchet mechanism in five-year increments, for all countries to set and achieve GHG emission mitigation pledges until the long-term goal is met. For the first time under the UNFCCC, all Parties participate in a common framework with common guidance, though some Parties are allowed flexibility in line with their capacities. This largely supersedes the bifurcated mitigation obligations of developed and developing countries that have held the negotiations in often-adversarial stasis for many years.
- **Accountability framework.** To promote compliance, the PA balances accountability to build and maintain trust (if not certainty) with the potential for public and international pressure (“name-and-shame”). Also, the PA establishes a compliance mechanism that will be expert-based and facilitative rather than punitive. Many Parties and observers will closely monitor the effectiveness of this strategy.
- **Adaptation.** The PA also requires “as appropriate” that Parties prepare and communicate their plans to adapt to climate change. Adaptation communications will be recorded in a public registry.
- **Collective financial obligation.** The PA reiterates the collective obligation in the UNFCCC for developed country Parties to provide financial resources—public

and private—to assist developing country Parties with mitigation and adaptation efforts. It urges scaling up of financing. The Parties agreed to set, prior to their 2025 meeting, a new collective quantified goal for mobilizing financial resources of not less than \$100 billion annually to assist developing country Parties.

U.S. executive branch officials have stated that the PA is not a treaty requiring Senate advice and consent to ratification. Whether becoming a Party to the PA would require Senate advice and consent depends on the content of the agreement. If the PA were to contain new legal obligations on the United States or require authorizations to implement it, these factors would favor requiring Senate consent to the President’s ratification of it. However, many authorities have opined that the PA does not meet these thresholds for the United States.

Beyond the Senate’s role in giving advice and consent to a treaty, Congress continues to exercise its powers through authorizations and appropriations for related federal actions. Additionally, numerous issues may attract congressional oversight, such as international rules to be developed to carry out the PA, guidance to Parties, use of funds, and assessment of the effectiveness of other Parties’ efforts.

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The Paris Agreement in Context

Introduction

Debate continues in the United States over whether and how the federal government should address human-related climate change. Most scientists and governments accept that stabilizing the concentrations of greenhouse gases (GHG) in the atmosphere and avoiding further GHG-induced climate change would require concerted effort by all major emitting countries.¹ Toward this end, 195 governments attending the 21st Conference of Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC) in Paris, France, adopted on December 12, 2015, an agreement outlining goals and a structure for international cooperation to address climate change and its impacts over decades to come.² The “Paris Agreement” (PA) is subsidiary to the UNFCCC, a treaty that the United States ratified with the advice and consent of the Senate³ and entered into force in 1994.⁴

The PA opened for signature by the Parties on April 22, 2016, at U.N. headquarters in New York City. Heads of state and ministers of more than 175 governments signed the PA at that time.⁵ Signature generally indicates that a country intends to be bound by the agreement and initiates the process by which a nation state becomes a Party to the agreement. For many countries, including the United States, signature does not itself indicate consent to be bound by agreements. In accordance with the PA, a government’s consent to be bound is given only with the deposit of a country’s instrument of ratification, acceptance, approval, or accession with the U.N. depositary. As of August 10, 2016, 22 UNFCCC Parties—accounting for 1.08% of global GHG emissions—had deposited their instruments.⁶ The PA enters into force 30 days after at least 55 countries representing at least 55% of officially reported global GHG emissions have deposited their instruments.

The PA creates a structure for nations to pledge to abate their GHG emissions, adapt to climate change, and cooperate toward these ends, including financial and other support. The Parties in Paris also adopted a Decision to help implement the PA. The PA is intended to be legally binding on Parties, though not all provisions are mandatory.

¹ For information on GHG emissions, and scientific understanding of how they influence climate change, see CRS Report R43229, *Climate Change Science: Key Points*, by (name redacted)

² Conference of the Parties to the UNFCCC, “Adoption of the PA,” in *Report of the Conference of the Parties on Its Twenty-First Session, Held in Paris from 30 November to 13 December 2015, Addendum, Part Two: Action Taken by the Conference of the Parties at Its Twenty-First Session*, FCCC /CP/2015/10/Add.1. Decision 1/CP.21. 2016.

³ See President George H. W. Bush, letter to the Senate of the United States, 138 Cong. Rec. 23902 (September 8, 1992). The U.S. Senate gave its advice and consent to ratification in “Framework Convention on Climate Change,” *Congressional Record*, vol. 138 (October 7, 1992), p. 33527. See also S. Treaty Doc. 102-38 (1992); S. Exec. Rept. 102-55. President Bush signed the instrument of ratification and submitted it to the United Nations on October 13, 1992. Depositary notification C.N.148.1993.

⁴ For more information about the UNFCCC, the Kyoto Protocol, and other related issues and decisions, see CRS Report R40001, *A U.S.-Centric Chronology of the United Nations Framework Convention on Climate Change*, by (name redacted).

⁵ White House, “U.S.-China Joint Presidential Statement on Climate Change,” March 31, 2016, <https://www.whitehouse.gov/the-press-office/2016/03/31/us-china-joint-presidential-statement-climate-change>.

⁶ An up-to-date summary of PA ratifications is available from the UNFCCC website: http://unfccc.int/paris_agreement/items/9485.php.

Members of Congress have expressed diverse views about the PA and may have questions about its content, process, and obligations. This report is intended to answer some of the primary factual and policy questions about the PA and its implications for the United States. It touches on nearly all of the 29 articles in the 16-page agreement, as well as some in the accompanying decision of the Parties to give effect to the PA. Other CRS products, available by request or on the CRS website, may provide additional or deeper information on specific questions.⁷

The UNFCCC, the Kyoto Protocol, and the Paris Agreement

The UNFCCC is a “framework” or “umbrella” treaty.⁸ That is, Parties established an objective and general obligations in the UNFCCC with an expectation that further subsidiary agreements would gradually work toward achieving the objective:

The ultimate objective of this Convention and any related legal instruments that the Conference of the Parties may adopt is to achieve, in accordance with the provisions of the Convention, stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner.⁹

Governments anticipated that the UNFCCC would require further, subsidiary decisions, annexes, protocols, or other agreements in order to achieve that objective.

The first subsidiary agreement to the UNFCCC was the 1997 Kyoto Protocol, which entered into force in 2005. The United States signed but did not ratify the Kyoto Protocol and so is not a Party to it. The Kyoto Protocol established legally binding targets for 37 high-income countries and the European Union to reduce their GHG emissions on average by 5% below 1990 levels during 2009-2012. It precluded GHG mitigation obligations for developing countries. Most of those high-income Parties took on further targets for 2013-2020. The United States and a number of other countries ultimately viewed the Kyoto Protocol as an unsuitable instrument for long-term cooperation because it excluded GHG mitigation commitments from developing countries.

The PA is the second major subsidiary agreement under the UNFCCC. Many stakeholders expect the PA to eventually replace the Kyoto Protocol as the primary subsidiary vehicle for process and actions under the UNFCCC. No agreed vision for a transition from the Kyoto Protocol to the PA has been articulated, though some Parties have urged that PA implementation take advantage of existing processes and rules of the Kyoto Protocol that have proven successful.

What is the relationship of the PA to the UNFCCC and the Kyoto Protocol?

The UNFCCC is a “framework” treaty. (See text box.) The PA is subsidiary to the UNFCCC, meaning that it is understood to exist within the scope and terms of the UNFCCC. As such, only Parties to the UNFCCC are eligible to become Parties to the PA (PA Article 20.1).¹⁰

⁷ In particular, the CRS expert regarding treaty law is (name redacted), of the American Law Division, who can answer related legal questions.

⁸ See discussion of umbrella or framework treaties under protocols on the website of the United Nations Treaty Collection, “Definitions of Key Terms Used in the UN Treaty Collection,” https://treaties.un.org/Pages/overview.aspx?path=overview/definition/page1_en.xml.

⁹ UNFCCC, Article 2.

¹⁰ Currently, the UNFCCC Secretariat reports that there were 197 Parties to the UNFCCC as of August 1, 2016. One example of a state that has not deposited its ratification is the Cayman Islands. The United States does not believe Palestine qualifies as a sovereign state and has submitted an official objection to its accession to the UNFCCC, according to a letter from the Department of State’s Assistant Secretary for Legislative Affairs to Senator John Barrasso. (Copy available upon request to CRS.)

The COP established a mandate at its 2011 meeting in Durban, South Africa, “to develop a protocol, another legal instrument or an agreed outcome with legal force under the Convention applicable to all Parties,”¹¹ which could be adopted by the COP in December 2015 and come into effect and be implemented by 2020. The PA is the outcome of the Durban mandate.

The PA may take advantage of many rules and processes that currently support Parties’ implementation of their UNFCCC obligations (e.g., to submit and review national GHG inventories). The UNFCCC processes will continue in parallel with new ones under the PA unless Parties modify them. In developing implementation of the PA, the Parties may elect to make use of existing UNFCCC or Kyoto Protocol processes and agreed rules—such as to promote adaptation to climate change or to account for emissions from land use change—rather than beginning new ones. Some processes may be streamlined or merged under the related agreements.

Abbreviations for Key UNFCCC Decisionmaking Bodies

COP: The Parties to the UNFCCC, as a body, are referred to as the “Conference of the Parties” (COP). It remains the supreme decisionmaking body of the treaty.

CMA: The Parties to the PA will collectively be called the “Conference of the Parties serving as the meeting of the Parties to the PA”, or CMA.

APA: To prepare for the first CMA, the PA established the “Ad Hoc Working Group on the PA” (APA) to develop guidance, processes, and recommendations for the CMA’s consideration and adoption.

What are some key policy takeaways from Paris?

While the PA is only 16 pages long, it contains a number of complex mechanisms—many of which will require further definition by the negotiating Parties. Some experts and observers, noting the PA’s largely procedural nature and lack of binding quantitative GHG obligations, have questioned whether the PA marks significant change. Others note a number of substantive differences from prior commitments, specifically for some Parties. Below are several ways in which the PA embodies change under the UNFCCC.

- **Common process for all Parties.** For the first time under the UNFCCC, all Parties will participate in a common framework with common guidance, although some Parties will have flexibility in line with their capacities. The commonality largely supersedes the bifurcation into developed and developing countries that has held the negotiations in often-adversarial stasis for many years.
- **Ratcheting process toward quantified objective.** The PA defines a quantitative (though collective) long-term objective to hold the GHG-induced increase in temperature to well below 2° Celsius (C) and pursue efforts to limit the temperature increase to 1.5°C above the pre-industrial level. The PA establishes a process, with a “ratchet mechanism” in five-year increments, for countries to set and achieve GHG abatement targets until the long-term goal is met.
- **Greater subsidiarity.** The PA embodies greater decentralization than, for example, the Kyoto Protocol.¹² The PA increases reliance on decisionmaking and strategy by individual countries or countries cooperating among themselves, not

¹¹ Durban Mandate. Decision 1/CP.17. December 2011. <http://unfccc.int/bodies/body/6645.php>.

¹² For more on the Kyoto Protocol, see the UNFCCC website at http://unfccc.int/kyoto_protocol/items/2830.php.

necessarily through central decision mechanisms. Examples of subsidiarity include

- the nationally determined contributions (pledges) that set countries' GHG targets, and
- recognition that Parties will use market-based mechanisms (e.g., emissions trading) to transfer emission reduction credits to meet their commitments.¹³
- **Growing role of non-state entities.** The negotiations leading to the Paris conference and the PA grew more inclusive of non-state entities (including the private sector) as observers and influencers. Parties to the process have recognized them as key decisionmakers and implementers of activities expected to be necessary to achieve the GHG abatement and increased resilience to climate change envisioned in the PA.
- **Moderate compliance incentives for all.** For the first time, all countries agreed to a single system for transparency, accountability, and public accessibility to emissions and policy information to promote compliance with the PA. The UNFCCC lacks universal obligations for transparency and review, while the Kyoto Protocol's more intrusive non-compliance provisions may have discouraged participation in commitments by some Parties. To promote compliance, the PA works to balance accountability necessary to build and maintain trust (if not certainty) with the potential for public and international pressure ("name-and-shame"). A compliance mechanism is defined to be expert-based and facilitative rather than punitive. Many Parties and observers will closely monitor the effectiveness of this strategy.

Requirements and Recommendations in the PA

What is the purpose and long-term goal of the PA?

The PA states its purpose in Article 2: to enhance implementation of the UNFCCC and "to strengthen the global response to the threat of climate change." Parties to the UNFCCC adopted the PA "in pursuit of the objective of the Convention"¹⁴—to stabilize GHG concentrations in the atmosphere at a level to avoid dangerous anthropogenic interference in the climate system.¹⁵

GHG Increases and Global Average Temperature Increases

There is strong scientific agreement that climate change is occurring and that human activities—especially carbon dioxide (CO₂) emissions from the burning of fossil fuels (coal, oil, and gas)—are responsible for most of the climate change observed since the 1970s. Further human-related GHG emissions, and their accumulation in rising

¹³ A market-based mechanism allows an entity with more emission reductions than it needs to meet its commitment to sell or otherwise transfer some or part of its extra reduction credits to another entity, which may use those transferred emission reduction credits to meet its emission commitments.

¹⁴ In the PA's preamble, third paragraph.

¹⁵ For further information on climate change science and GHG emissions, see CRS Report R43229, *Climate Change Science: Key Points*, by (name redacted). Discussion of how the UNFCCC's objective relates to GHG emissions is available in CRS Report R44092, *Greenhouse Gas Pledges by Parties to the United Nations Framework Convention on Climate Change*, by (name redacted).

atmospheric concentrations, would induce further climate change and would pose significant risks for many human and natural systems.¹⁶

The amount of global average temperature increase induced by rising GHG emissions is understood only within a wide range, and the higher temperature end of that range is not well constrained by observational evidence. There is broad—though not universal—scientific agreement that a doubling of pre-industrial CO₂ concentrations (from 280 parts per million) would likely result in global average warming of 1.5-4.5°C over multiple centuries.¹⁷ (Current CO₂ concentrations alone exceed 400 ppm globally.) From a geologic perspective, a temperature increase in this range would be a large and rapid change in the earth’s system. For a comparison on magnitude, a multi-researcher analysis estimated a temperature difference of approximately 3-5°C between the Last Glacial Maximum, when ice sheets were at their maximum extent—about 21,000 years ago—and the pre-industrial surface global mean temperature.¹⁸

Although stabilizing GHG concentrations would require eventually reducing human-related net emissions to near zero, the UNFCCC did not state when or at what levels stabilization should occur. The levels at which GHG atmospheric concentrations are stabilized ultimately determines the degree of GHG-induced temperature change.

The PA quantifies the intent of Parties in this regard in Article 2, stating that it aims to

[hold] the increase in the global average temperature to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change.

Article 2 also calls for, *inter alia*, increasing the ability to adapt to climate change and making financial flows consistent with a pathway toward low GHG emissions and climate-resilient development.

In order to achieve the PA’s “long-term temperature goal,” Parties aim to make their GHG emissions peak as soon as possible and then reduce them rapidly “so as to achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century.”¹⁹ In other words, the PA envisions achieving net zero anthropogenic GHG emissions within a defined time period. While this is arguably synonymous with the UNFCCC’s objective of stabilizing GHG atmospheric concentrations, the PA puts a time frame on the objective for the first time. The objective, however, is collective. It remains unclear whether the PA could hold an individual Party accountable if the collective objective is not met.

What does the PA require?

The PA establishes a single framework under which all Parties shall:

¹⁶ See, among other sources, National Research Council, “Climate Change: Evidence, Impacts, and Choices,” 2011, <http://nas-sites.org/americasclimatechoices/more-resources-on-climate-change/climate-change-lines-of-evidence-booklet/>.

¹⁷ Intergovernmental Panel on Climate Change, Working Group 1, “Climate Change 2013: The Physical Science Basis,” 2013, <http://www.ipcc.ch/report/ar5/wg1/>.

¹⁸ Jansen, Eystein et al., “Chapter 6: Palaeoclimate,” in *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge, UK and New York, NY: Cambridge University Press, 2007), https://www.ipcc.ch/publications_and_data/ar4/wg1/en/ch6.html. A more recent reference is Annan, J. D., and J. C. Hargreaves. “A New Global Reconstruction of Temperature Changes at the Last Glacial Maximum.” *Clim. Past* vol. 9, no. 1 (February 13, 2013): 367–76.

¹⁹ PA, Article 4.

- communicate every five years and undertake Nationally Determined Contributions (NDCs) to mitigate GHG emissions, reflecting the “highest possible ambition”;
- participate in a single “transparency framework” that includes communicating their GHG inventories and implementation of their obligations—including financial support provided or received—not less than biennially (with exceptions to a few least developed states); and
- be subject to international review of their implementation.

All Parties will eventually be subject to common procedures and guidelines. However, developed country Parties²⁰ should provide NDCs stated as economy-wide, absolute GHG reduction targets, while developing country Parties are exhorted to enhance their NDCs and move toward similar targets over time in light of their national circumstances. Further flexibility in the transparency framework is allowed to developing countries (depending on their capacities) regarding the scope, frequency, and detail of their reporting. Many observers consider this flexibility key to gaining the participation of many low-income countries, while some observers note that the flexibility may allow reticent Parties to resist more stringent commitments.²¹ The administrative Secretariat of the UNFCCC will record the NDCs and other key reports in a public registry.

The PA also requires “as appropriate” that Parties prepare and communicate their plans to adapt to climate change. Adaptation communications, too, will be recorded in a public registry.

The PA reiterates the obligation in the UNFCCC for developed country Parties to provide public and private financial support to assist developing country Parties with mitigation and adaptation efforts. It also urges scaling up of financing. The Parties agreed to set, prior to their 2025 meeting, a new collective quantified goal for mobilizing financial resources of not less than \$100 billion annually to assist developing country Parties.²²

The PA permits Parties to participate in cooperative approaches (implicitly, emissions markets) that “involve the use of internationally transferred mitigation outcomes.” Additional mechanisms for cooperative activities, and efforts to incentivize private sector participation, are identified.

Further, the PA establishes a committee that will address compliance issues under the PA in a facilitative and non-punitive manner. Finally, the PA contains provisions for voluntary withdrawal of Parties.

Is the PA legally binding?

As explained in CRS Report RL32528, *International Law and Agreements: Their Effect upon U.S. Law*:

An international agreement is generally presumed to be legally binding in the absence of an express provision indicating its nonlegal nature. State Department regulations recognize that this presumption may be overcome when there is “clear evidence, in the

²⁰ The terms “developed” and “developing” country Parties were not defined in the UNFCCC. While Parties arguably generally understood which countries fell into which category, particularly considering those listed as “developed” in Annex I of the treaty, the absence of definition or criteria arguably contributes to the challenge of countries graduating to higher levels of effort or contribution as they develop.

²¹ An example of cautious observations is Liu, Xiawan. “The Paris Agreement: Miracle or Mirage?,” *Georgetown Environmental Law Review*, February 16, 2016, <https://gelr.org/2016/02/16/the-paris-agreement-miracle-or-mirage/>.

²² For more information, see section titled “What are the financial obligations, if any, for the United States in the PA?”

negotiating history of the agreement or otherwise, that the parties intended the arrangement to be governed by another legal system.” Other factors that may be relevant in determining whether an agreement is nonlegal in nature include the form of the agreement and the specificity of its provisions.”

The PA was negotiated as a subsidiary agreement to the UNFCCC, which is a legally binding treaty on Parties to it under international law.²³ Pursuant to enhancing implementation of the UNFCCC, the negotiators adopted the Durban Mandate, “a protocol, another legal instrument or an agreed outcome with legal force” applicable to all Parties.²⁴ As negotiations under the Durban Mandate neared their resolution, many Parties stated their intentions that the PA be legally binding in many respects.²⁵ The text contains provisions consistent with the form of an agreement intended to be governed by international law, such as entry into force, the depositary for the agreement, dispute settlement, and withdrawal from the agreement.²⁶ As discussed above, the agreement also contains specific obligations intended to be binding on individual PA Parties. Many of the mandatory obligations appear to be distinguishable by use of the imperative verb *shall*, although some are qualified in ways (e.g., “as appropriate”) that soften the potential obligation. Not all provisions in the PA are mandatory. Some provisions exhort but would not legally require Parties (individually or collectively) or the Secretariat to undertake actions or to conform to norms under the PA. Some provisions are facilitative.

The principal mandatory provisions for individual Parties are procedural. Among the most important of these is PA Article 4.2:

[E]ach Party shall prepare, communicate, and maintain successive nationally determined contributions that it intends to achieve. Parties shall pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions.

While the PA obligates Parties to submit NDCs to mitigate GHG emissions—with certain *characteristics and frequency* of those submissions identified in the PA or to be determined in

²³ See footnote 3. For additional discussion of the elements necessary for an agreement to be binding under international law, see Congressional Research Service. *Treaties and Other International Agreements: The Role of the United States Senate. A study prepared for the Committee on Foreign Relations*, United States Senate. January 2001. pp. 50-53. Notably, “a paramount principle of international law is *pacta sunt servanda*—that treaties must be kept. Treaties, therefore, are binding under international law” (p. 50). Nonetheless, some written understandings are considered non-legally binding. Footnote 30 of the CRS study spells out the Department of State’s guidelines for internal purposes for determining the elements of a legally binding international agreement. Primary among these is whether the parties intend to be bound under international law.

²⁴ UNFCCC, “Establishment of an Ad Hoc Working Group on the Durban Platform for Enhanced Action,” Decision 1/CP.17, p. 2, March 15, 2012.

²⁵ See, among many negotiators’ statements, John Kerry. “COP21 Press Availability with Special Envoy Todd Stern.” December 7, 2015:

[W]e are supportive ... that [the agreement] would involve a legally binding agreement in many respects. There would be legally binding requirements in this approach to put forward your mitigation, your target, your INDC to include the kind of information that makes it intelligible and understandable that would include requirements for producing inventories, for reporting on your progress toward your target, for being reviewed, for various rules that would apply to how targets, how emissions are counted and the like. But not the target itself.

See also European Commission. *Climate Action: Paris Agreement*.

http://ec.europa.eu/clima/policies/international/negotiations/paris/index_en.htm;

<http://en.ccchina.gov.cn/Detail.aspx?newsId=57834&Tid=96>; China Climate Change Info-Net. “China urges implementation of historic climate deal.” December 13, 2015; and, Dan Bodansky. “The Legal Character of the Paris Agreement: A Primer.” *Opinio Juris*. November 28, 2015.

²⁶ Bodansky. *Op cit.*; See also Department of State. “International Documents of a Non-Legally Binding Character.” No date. <http://www.state.gov/documents/organization/65728.pdf>.

guidance of the Parties—the *contents* of the NDCs are not intended to be enforceable under the PA.

Specifically, Article 4.8 requires that Parties’ communications of their NDCs shall provide the information necessary for clarity, transparency, and understanding in accordance with guidance on reporting and NDCs to be developed by the APA for adoption by the CMA in its first session. Each Party must communicate an NDC every five years. Each shall also account for its NDC post hoc in accordance with CMA guidance.

Each Party must also, “as appropriate,” engage in adaptation planning processes and implementation of adaptation-related actions.

While the PA contains many additional requirements, such as to provide “continuous and enhanced support ... to developing country Parties” for required adaptation efforts, those provisions are collective obligations. There is currently no mechanism by which an individual Party could be held accountable for collective shortcomings.

Are PA requirements new for some Parties?

The PA contains a multitude of obligations for governments that become Parties to it, but few experts have suggested that there are obligations for the United States in the PA beyond those in the UNFCCC. The Obama Administration has articulated its view: “The targets are not binding; the elements that are binding are consistent with already approved previous agreements.”²⁷

Some of the PA’s provisions are, arguably, new obligations for other Parties, such as the (mostly low-income) Parties not listed in the UNFCCC’s Annex I. One example is the provision requiring all Parties to ultimately be held to common transparency and review guidelines.

All Parties to the UNFCCC,²⁸ including the United States, have a host of obligations under the treaty. These existing obligations require Parties to:

- inventory, report, and control their human-related GHG emissions, including from land use;
- cooperate in preparing to adapt to climate change;
- seek to mobilize financial resources; and
- assess and review, through the COP, the effective implementation of the UNFCCC, including the commitments therein.

The industrialized countries listed in Annex I of the UNFCCC, including the United States, had stronger obligations than other countries with regard to reporting, communicating, and international review. In addition, the then-highest income countries, listed in Annex II of the UNFCCC, also had obligations to provide financial, technological, and capacity-building assistance to help developing country Parties meet their obligations.

For countries not listed in Annex I, some obligations under the PA will be new or stronger than those under the UNFCCC. The PA and Decision establish a single framework under which all Parties would:

²⁷ U.S. Department of State, “Background Briefing on the Paris Climate Agreement,” December 12, 2015.

²⁸ United Nations, *Treaty Series*, vol. 1771, p. 107; and depositary notifications C.N.148.1993. As of August 1, 2016, the UNFCCC Secretariat reported that there were 197 Parties to the UNFCCC.

- communicate every five years and undertake Nationally Determined Contributions (NDCs) to mitigate GHG emissions, reflecting the “highest possible ambition” (Article 4.3),
- participate in a single transparency framework that includes communicating their GHG inventories and implementation of their obligations—including financial support provided or received—not less than biennially (with exceptions to a few least developed states), and
- be subject to international review of their implementation.

The United States, as a Party listed in Annex I of the UNFCCC, has already taken on the PA’s general obligations under the UNFCCC. In contrast, Parties not listed in Annex I were not subject to UNFCCC provisions that required detailed reporting of policies and measures and their effects,²⁹ among other requirements. Additional provisions subjected Annex I Parties to certain reviews not applicable to other Parties.³⁰ The PA expands reporting and reviews for non-Annex I Parties.

All Parties to the PA will eventually be subject to common procedures and guidelines under it. However, while developed country Parties³¹ must provide NDCs stated as economy-wide, absolute GHG reduction targets, developing country Parties are exhorted to enhance their NDCs (i.e., deepen their GHG reductions) and move toward similar targets over time in light of their national circumstances. Article 4 states that “each Party’s successive nationally determined contribution will represent a progression beyond the Party’s then current nationally determined contribution.” Many view this as a ratchet mechanism that would result in progressively deeper GHG emission reductions. This may be more an expectation than an obligation.³²

What are the financial obligations, if any, for the United States in the PA?

Article 9 of the PA reiterates the obligation in the UNFCCC for developed country Parties, including the United States, to mobilize financial support to assist developing country Parties with mitigation and adaptation efforts (Article 9.1). Also, for the first time under the UNFCCC, the PA encourages all Parties to provide financial support voluntarily, regardless of their economic standing (Article 9.2). The agreement states that developed country Parties should take the lead in mobilizing climate finance and that the mobilized resources may come from a wide

²⁹ UNFCCC, Articles 4.2(b), 12.2, and 12.3.

³⁰ UNFCCC, Articles 4.2 (d) and 10.2(b)

³¹ The terms “developed” and “developing” country Parties were not defined in the UNFCCC. While Parties arguably generally understood which countries fell into which category, particularly considering those listed in Annex I of the treaty to be “developed,” the absence of definition or criteria arguably contributes to the challenge of countries graduating to higher levels of effort or contribution as they developed.

³² Negotiators pay careful attention to specific words and their potential indication of legal obligations under an agreement, and this has been visible in revisions of the drafts leading to the final PA. The use of *shall*, as the imperative tense, tends to be associated with binding obligations, while *will* is in the future tense, which may be interpreted more as a predication rather than obligation. The use of *shall* however, may be altered by modifiers around it, such as *as appropriate* or *generally*, or by choice of verb, such as *aim*, which may imply effort or intention but not necessarily hitting the target. Whether a particular provision would be legally binding, however, would likely be debated and ultimately decided by the Parties and the dispute settlement and compliance proceedings under the PA and UNFCCC (its umbrella convention).

variety of sources—noting the significant role of public funds. It adds that the mobilization of climate finance “should represent a progression beyond previous efforts” (Article 9.3).

The Decision to adopt the PA uses exhortatory language to restate the collective pledge by developed countries in the 2009 Copenhagen Accord of \$100 billion annually by 2020 and calls for continuing this collective mobilization through 2025. In addition, the Parties to the COP agreed to set, prior to their 2025 meeting, a new collective quantified goal for mobilizing financial resources of not less than \$100 billion annually to assist developing country Parties.³³ The Decision strongly urges developed country Parties to scale up their current financial support—in particular to significantly increase their support for adaptation. The Decision recognizes that “enhanced support” will allow for “higher ambition” in the actions of developing country Parties (1/CP.21§114). This is a collective commitment to which it would be difficult to hold an individual Party accountable.

What is the role of the Green Climate Fund in the PA?

The Decision recognizes the Green Climate Fund (GCF)³⁴ as one of the entities entrusted with the operation of the financial mechanism of the UNFCCC (1/CP.21§58) and, thus, as one channel through which official UNFCCC financing may flow. In general, the Decision recognizes that adequate and predictable financial resources will flow from, *inter alia*, “public and private, bilateral and multilateral sources, such as the Green Climate Fund, and alternative sources” (1/CP.21§54).

The GCF is a multilateral trust fund intended to operate at arm's length from the UNFCCC with an independent board, trustee, and secretariat. The GCF was proposed during the 2009 COP in Copenhagen, Denmark; accepted by Parties as an “operating entity of the financial mechanism under Article 11 of the Convention” during the 2011 COP in Durban, South Africa; and made operational in the summer of 2014. The governing instrument for the GCF states that the GCF is to be “accountable to and function under the guidance of the Conference of Parties” (3/CP.17§A4)—that is, similar in legal structure to the Global Environment Facility—as opposed to “accountable to and function under the guidance and authority of the Conference of Parties” (i.e., similar in legal structure to the Adaptation Fund).

Does the PA address “Loss and Damage”?

A key issue for some Parties in the PA negotiations was “loss and damage” due to climate change. Parties that perceived themselves as vulnerable to climate change have long sought commitments from the historically high-emitting countries to provide liability or funds to compensate for loss and damage that vulnerable Parties may suffer. The UNFCCC Secretariat defined loss and damage, at least temporarily, as “the actual and/or potential manifestation of impacts associated with climate change in developing countries that negatively affect human and natural systems.”³⁵ Loss and damage may occur even with preparation and adaptation to anticipated climate change.

³³ COP Decision 1/CP.21§53.

³⁴ See CRS In Focus IF10382, *International Environmental Assistance: Green Climate Fund*, by (name redacted). See also CRS In Focus IF10397, *The Global Climate Change Initiative (GCCII): Budget Authority and Request, FY2015 - FY2017*, by (name redacted).

³⁵ UNFCCC Secretariat, “A Literature Review on the Topics in the Context of Thematic Area 2 of the Work Programme on Loss and Damage: A Range of Approaches to Address Loss and Damage Associated with the Adverse Effects of Climate Change: Note by the Secretariat,” November 15, 2012.

The United States and other historically high-emitting nations opposed new programs or commitments addressing loss and damage.

In response to the interests of many countries, the Warsaw International Mechanism on Loss and Damage (“Warsaw Mechanism”) was agreed under the UNFCCC in 2013 at COP19 in Decision 3/CP.19. The Warsaw Mechanism is procedural in nature.

Despite strenuous negotiations, the UNFCCC Parties did not adopt proposals that could have established legal remedies—such as liability or compensation for loss and damage. Instead, the negotiators agreed in Article 8 to continue the existing process under the authority of the CMA to explore cooperation and facilitation that could include early warning systems, emergency preparedness, comprehensive risk assessment and management, and improved resilience.

Does the PA include or allow market-based mechanisms to reduce GHG emissions?

Article 6 of the PA recognizes that Parties may use market-based mechanisms that generate and allow international transfer of GHG reduction credits that can be used to meet NDCs. The Decision calls for a work program that would govern market mechanisms and the additional mechanisms under the PA.

Article 6 covers four distinct (but not mutually exclusive) opportunities for Parties to the PA to voluntarily cooperate to mitigate GHG emissions in ways that can lead to transfers of emission reduction credits between Parties:

- *Cooperative approaches*, acknowledging that Parties may choose, on a voluntary basis, to cooperate in the implementation of their NDCs.³⁶ This provision may be read as broad, potentially encompassing the other means included in the article as well as additional approaches that may emerge through the duration of the PA.
- *Transfers of mitigation outcomes* between Parties are recognized as a means to meet Parties’ NDCs. “Internationally transferred mitigation outcomes” will need to be consistent with future CMA guidance on their GHG accounting, intended to ensure “environmental integrity”—that is, that there is no double counting or other misaccounting that could undermine the abatement pledged by Parties. The language is explicit that the transfers occur under the authorities of the participating Parties, not the CMA. This contrasts with the provisions in the Kyoto Protocol that required exchanges of credits to occur under—and with the prior approval of—Kyoto-established institutions (i.e., the Clean Development Mechanism).
- *A mechanism to contribute to mitigation and support sustainable development* is established under the CMA that could establish credit for cooperative programs that mitigate GHG emissions and development of a Party. Those credits could be used to meet one Party’s NDC. A share of the proceeds from activities under this mechanism will help defray administrative expenses and assist developing countries.
- *A framework for non-market approaches* is defined but not “established.” The provisions make clear that the framework should promote sustainable development; synergies across mitigation, adaptation, finance, and technology

³⁶ UNFCCC Article 3 previously authorized Parties to cooperate.

transfer; and capacity-building, along with additional purposes. But the nature and processes of this framework remain to be developed.

Collectively, these four mechanisms encompass a diversity of interests and preferred approaches among Parties. They may be viewed as broadly inclusive, not suggesting preferences in the PA for one approach over another.

What gases and sectors does the PA cover?

The PA is silent regarding the anthropogenic gases and sectors potentially covered, leaving the scope bounded by the UNFCCC's scientific definition of what constitutes a GHG.³⁷ The UNFCCC includes all human-related GHGs and all sectoral sources of them. It also includes removals of GHGs from the atmosphere by "sinks" and reservoirs, including land uses (i.e., photosynthesis by vegetation and soils). Article 5 explicitly exhorts Parties to "reduce emissions from deforestation and forest degradation, and conservation (REDD+), including through results-based payments."

To support the PA negotiations, most UNFCCC Parties submitted Intended Nationally Determined Contributions (INDCs) during 2015, constituting country-driven intentions of what each would do to address GHG emission mitigation and, in some cases, adaptation.³⁸ Each Party decided and communicated which GHG and sectors it covered in its INDC, and a wide diversity of scopes were identified across nations. A continuing task for the UNFCCC Secretariat will be to try to put those INDCs into a common metric and assess the aggregate effects of the INDCs. It began this task with an analysis released in October 2015³⁹ updated on May 2, 2016.⁴⁰

The COP Decision giving effect to the PA requested the APA to develop guidance for the CMA to consider and adopt at its first session. The process of negotiating guidance will likely consider methods and approaches for estimating and accounting for anthropogenic GHG emissions and sinks in the NDCs. (See paragraphs 28 and 27 of Decision 1/CP.21.) This process will build on extensive but flexible guidance already adopted under the UNFCCC for estimating and reporting GHG inventories, but challenging issues—such as reporting of sinks—may arise as they have in the past.

Procedural Topics

When will the PA enter into force?

Entry into force of the PA requires four steps by intended Parties:

³⁷ The UNFCCC does not name specific GHG in its definitions. The Kyoto Protocol listed CO₂, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride as covered GHGs (and were a topic of much negotiation). Nitrogen trifluoride was added for the period 2013-2020. However, the gases covered by the Kyoto Protocol have no direct bearing on what Parties to the PA may count or mandate.

³⁸ The United States submitted its INDC on March 31, 2015, available at <http://www4.unfccc.int/Submissions/INDC/Submission%20Pages/submissions.aspx>.

³⁹ UNFCCC. "Synthesis Report on the Aggregate Effect of the Intended Nationally Determined Contributions: Note by the Secretariat." Bonn: United Nations, October 30, 2015. <http://unfccc.int/resource/docs/2015/cop21/eng/07.pdf>.

⁴⁰ UNFCCC. "Aggregate Effect of the Intended Nationally Determined Contributions: An Update." Bonn: United Nations, May 2, 2016. <http://unfccc.int/resource/docs/2016/cop22/eng/02.pdf>.

1. Signature by individual national governments;⁴¹
2. Domestic processes of ratification, acceptance, approval, or accession;
3. Deposition of those instruments of ratification, acceptance, approval, or accession with the United Nations depositary; and
4. Passing a threshold of 55 countries, representing at least 55% of GHG emissions, that have deposited their instruments.

It will have legal force only for those nations that have deposited their instruments. The mandate for the PA envisioned it taking effect in 2020. Some observers suggest that the early, high number of signatures signals a possibility that the agreement may enter into force years sooner.

More than 170 governments (including the United States and European Union) signed the agreement on April 22, 2016.⁴² This set a new record for signatures on a U.N. treaty in a single day. Signatories include all major emitting countries. The PA remains open for signature until April 21, 2017.

Signatures alone do not trigger entry into force of the agreement, but they are a first step in the process for a UNFCCC Party to become Party to the PA. The PA is explicit in Article 20 that signature is further subject to ratification, acceptance, approval, or accession by the signing state or regional economic integration organization (REIO) before the agreement has legal force on that signatory. After signing, a state that seeks to become Party to the PA must proceed with its own domestic processes, defined by its laws, to ratify, accept, approve, or (for nations that do not sign before April 21, 2017) accede to the agreement.

Finally, to become a Party, a national government or an REIO (e.g., the EU) must deposit an instrument of ratification, acceptance, approval, or accession with the U.N. depositary. On April 22, 2016, 15 nations deposited their ratifications with the United Nations, and others pledged to do so as quickly as possible. According to the UNFCCC Secretariat, as of August 1, 2016, 22 signatories had deposited their instruments of ratification, acceptance, or approval, accounting for 1.08%⁴³ of the most recently reported global GHG emissions.

The signatory countries emit well over 55% of officially reported global GHG emissions. Reportedly, in addition to the 22 countries that have already ratified the PA, 33 countries stated their intent to deposit their instruments of ratification before the end of 2016. Together these 55 countries would total 56% of covered global GHG emissions.⁴⁴ It is possible that the PA could enter into force as early as the end of 2016.

Large GHG emitters that intend to join the PA in 2016 include Australia (1.46%), Argentina (0.89%), Canada (1.95%), China (20.09%), France (1.34%), Mexico (1.70%), and the United States (17.89%),⁴⁵ together adding up to more than 45% of the most up-to-date amounts of GHG

⁴¹ The EU may also become a Party to the PA, as it is to the UNFCCC. This report includes the EU when it refers to “nations” or “countries.”

⁴² UNFCCC Secretariat, “April 22 Paris Agreement Signing in New York Over 130 Countries Confirm Attendance: Update to Event, Guide to Subsequent Ratification,” April 7, 2016, <http://newsroom.unfccc.int/paris-agreement/april-22-paris-agreement-signing-ceremony-in-new-york/>.

⁴³ These figures do not yet include Ukraine and number of other high emitting nations, which have ratified but not, as of the date given, deposited their ratifications with the U.N. depositary. Members of the EU are likely to wait to deposit their ratifications as a bloc, perhaps not until 2017. For up-to-date accounting of ratifications, see http://unfccc.int/paris_agreement/items/9485.php.

⁴⁴ For one count, see Climate Analytics. *Projected Paris Agreement total ratifications in 2016*. Accessed August 15, 2016. <http://climateanalytics.org/hot-topics/ratification-tracker-projections.html>.

⁴⁵ Ariel Alexovich, “Record Support for Advancing Paris Climate Agreement Entry into Force,” April 22, 2016, (continued...)

emissions communicated by Parties to the UNFCCC.⁴⁶ Member states of the EU (12.06% of the total) must complete their domestic processes before the EU as a whole may complete its processes. Some observers have concluded that the EU member states may not complete their processes before 2017,⁴⁷ though officials of some EU member states have called on the EU to do so. Brazil (2.48%) and the Russian Federation (7.53%) also pledged to join the PA as quickly as possible. The 55% emissions threshold for entry into force would be passed if all these countries were to submit their ratifications.

Will the United States become a Party to the PA?

President Obama has stated his intention that the United States join the PA in 2016.⁴⁸ Underscoring that statement was the signature of the agreement by Secretary of State John Kerry on April 22, 2016, and his statement that the United States “looks forward to formally joining this agreement this year, and we call on all of our international partners to do so.”⁴⁹ While the PA would be a “treaty” as defined in the Vienna Convention on the Law of Treaties,⁵⁰ whether it may be a “treaty” under Article 2 of the U.S. Constitution has been subject to debate among various stakeholders, as has been the process by which the United States may ratify the PA.⁵¹

Whether becoming a Party to the PA would require the Senate’s advice and consent to ratification depends on the form and content of the agreement.⁵² On the one hand, if the PA were to contain new legal obligations for the United States, or if the United States were unable to meet its obligations without additional authority from Congress, those factors would favor regarding it as a treaty requiring Senate consent to the President’s ratification.⁵³ On the other hand, it could be

(...continued)

<http://www.un.org/sustainabledevelopment/blog/2016/04/record-support-for-advancing-paris-climate-agreement-entry-into-force/>.

⁴⁶ Not all Parties submit GHG inventories with the same regularity under the UNFCCC. The result is that the most up-to-date GHG emission amounts are for different years for different Parties, depending on the date of their most up-to-date communications. The global total is 37,168,339 metric tons of GHG on a CO₂-equivalent (CO₂e) basis, according to the UNFCCC Secretariat. See Conference of the Parties to the UNFCCC, “Annex I: Information Provided in Accordance with Paragraph 104 of Decision 1/CP.21 Related to Entry into Force of the Paris Agreement (Article 21),” *In Report of the Conference of the Parties on Its Twenty-First Session, Held in Paris from 30 November to 13 December 2015. Part One: Proceedings*, FCCC/CP/2015/10, UNFCCC Secretariat, 2016.

⁴⁷ Embassy of France in London. “France Working to Get Paris Agreement Ratified Worldwide.” *France in the United Kingdom - La France Au Royaume-Uni*, June 15, 2016. <http://www.ambafrance-uk.org/France-working-to-get-Paris-Agreement-ratified-worldwide>. A further complication in EU ratification is the 2016 vote in the United Kingdom to withdraw from the EU.

⁴⁸ White House, “U.S.-China Joint Presidential Statement on Climate Change,” March 31, 2016, <https://www.whitehouse.gov/the-press-office/2016/03/31/us-china-joint-presidential-statement-climate-change>.

⁴⁹ Secretary of State John Kerry, remarks at the opening ceremony of the United Nations Signing Ceremony of the Paris Agreement on Climate Change, U.S. Department of State, April 22, 2016, <http://www.state.gov/secretary/remarks/2016/04/256497.htm>.

⁵⁰ Daniel Bodansky, “The Legal Character of the PA,” Social Science Research Network, March 22, 2016, <http://papers.ssrn.com/abstract=2735252>. Wirth, David A. “Cracking the American Climate Negotiators’ Hidden Code: United States Law and the Paris Agreement.” *Climate Law* 6 (2016): 152.

⁵¹ For more information, see CRS Report RL32528, *International Law and Agreements: Their Effect upon U.S. Law*, by (name redacted).

⁵² Ibid.

⁵³ See Department of State, *H. Appendix A to The Handbook on Treaties and Other International Agreements (The C-175 Handbook)*, Section 711 “Exercise of the International Agreement Power,” paragraph “a. Treaties” and paragraph “b. International Agreements Other Than Treaties,” <http://www.state.gov/r/pa/ei/rls/dos/3797.htm>.

argued that the PA is an “executive agreement.” These are “agreements made solely on the basis of the constitutional authority of the President.”⁵⁴ The State Department’s *Handbook on Treaties and Other International Agreements* identifies considerations for the executive branch’s determination of the type of agreement and the constitutionally authorized procedures to be followed by the United States in bringing the agreement into force.⁵⁵

State Department officials have indicated that the executive branch considers the PA an executive agreement: They “have a standard State Department exercise that [they] are currently going through for authorizing an executive agreement, which this is.”⁵⁶

Some Members of Congress, in contrast, have pressed for treatment of the PA as a treaty. Four resolutions (S.Res.25, S.Res.329, S.Res.290, and H.Res.544) were introduced in 2015 to express the sense that the PA should be considered a treaty requiring the advice and consent of the Senate. Additional resolutions in the House were introduced (H.Con.Res.97 and H.Res.218) opposing the PA or setting conditions on its signature or ratification by the United States.

Some commentators consider that the PA may be an executive agreement because it does not contain new, specific legal obligations for the United States beyond those in the UNFCCC and already authorized under U.S. law.⁵⁷ The United States and other Parties to the UNFCCC accepted legally binding obligations when they ratified the UNFCCC, including addressing GHG emissions (Articles 4.1 and 4.2), preparation to adapt to climate change (Article 4.1), financial assistance to developing countries (Article 4.3-4.5), international cooperation and support (Article 4.1), and regular reporting of emissions and actions (Article 12) with international review (Article 4.2, 7). Some commentators note that the obligation to submit Nationally Determined Contributions (NDCs) is procedural, because the Parties would not have a legal obligation to comply with the content of the NDC. In other words, a Party could be held to account under the compliance provisions of the PA for not submitting an NDC, but it could not be held accountable under the compliance provisions should that Party not, for example, achieve a GHG emissions target it specified in its NDC. (See discussion in “Are PA requirements new for some Parties?”)

Others argue that the PA is a treaty that should be submitted to the Senate.⁵⁸ Some base this on historical practice, the potential costs and benefits, and other factors.⁵⁹ At least one commentator argues that the PA could, in future decades, result in stronger obligations for the United States than the Senate anticipated when it gave its consent to ratifying the UNFCCC.⁶⁰

⁵⁴ Ibid., paragraph b. This paragraph describes the constitutional bases for international agreements other than treaties.

⁵⁵ Ibid., Section 721.3.

⁵⁶ U.S. Department of State, “Senior State Department Official on the Paris Agreement Signing Ceremony,” press release, April 20, 2016, <http://www.state.gov/r/pa/prs/ps/2016/04/256415.htm>. See also Alman and Marans, “Barack Obama Praises Climate Change Agreement.” *Huffington Post*. December 12, 2015. http://www.huffingtonpost.com/entry/obama-paris-climate-agreement_us_566c8cf1e4b0fccee16ed503.

⁵⁷ See, among others, ThinkProgress. “No, The Paris Climate Agreement Isn’t Binding. Here’s Why That Doesn’t Matter.” *Medium*, December 14, 2015; Center for Climate and Energy Solutions (C2ES). “Paris Climate Talks Q&A.” Accessed August 16, 2016; Taraska, Gwynne, and Ben Bovanick. “The Authority for U.S. Participation in the Paris Climate Agreement.” Center for American Progress, Climate Adviser, July 2015.

⁵⁸ Rupert Darwall, “Paris: The Treaty That Dare Not Speak Its Name,” *National Review Online*, December 14, 2015, <http://www.nationalreview.com/article/428448/paris-climate-agreement-bad-us-needs-congressional-approval>.

⁵⁹ Marlo Lewis Jr. “The Paris Climate Agreement Is a Treaty Requiring Senate Review: Why and How Congress Should Fight President Obama’s Power Grab.” *Competitive Enterprise Institute*, February 24, 2016. Ramsey, Michael D. “Evading the Treaty Power: The Constitutionality of Nonbinding Agreements Symposium: Separation of Powers.” *FIU Law Review* 11 (2016 2015): 371–88.

⁶⁰ Steven Groves, “The PA Is a Treaty and Should Be Submitted to the Senate,” *Heritage Foundation*, March 15, 2016, (continued...)

The U.S. process will unfold over the coming months or years. The State Department's *Handbook* states, following a listing of considerations, that “[i]n determining whether any international agreement should be brought into force as a treaty or as an international agreement other than a treaty, the utmost care is to be exercised to avoid any invasion or compromise of the constitutional powers of the Senate, Congress as a whole, or the President.”⁶¹ It also states that consultations on the type of agreement to be used “will be held with congressional leaders and committees as may be appropriate.”⁶²

If the United States becomes a Party to the PA, could it withdraw?

The PA—typical of international agreements, including the UNFCCC—includes provisions for Parties to withdraw if they choose to do so. Article 2.8 spells out a procedure by which a Party may give written notice of withdrawal to the U.N. depositary after three years from the date on which the agreement has entered into force for that Party. The withdrawal would take effect one year later.

What are the roles of Congress with respect to the UNFCCC and the PA?

Congress has strong power to influence U.S. commitments and performance under the UNFCCC and—if the United States becomes a Party—the PA. The Senate constitutionally has an advice and consent role with respect to a treaty, though whether the PA constitutes a treaty under domestic law has not been tested. Senior officials of the executive branch have asserted that the PA is an executive agreement that does not require submission to the Senate because of the way it is structured.⁶³ Some in Congress may seek, nonetheless, that the Administration submit the PA to the Senate Foreign Relations Committee for advice and consent to ratification or for consultation with Congress on it.

As with other actions of the executive branch, Congress retains its powers of appropriations and oversight, as well as of giving (or withdrawing) authorizations regarding implementation of the PA.

Members of Congress and their staff routinely consult with the executive branch and conduct oversight with respect to the UNFCCC before and after international negotiating sessions and while attending negotiations as part of congressional delegations. Hearings provide more public settings for receiving testimony and exchanges of views with the Administration. Committee chairs have requested reviews of particular issues by the Government Accountability Office and others. All of these may continue under the UNFCCC and the PA.

Some key issues that may attract oversight include the following:

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<http://www.heritage.org/research/reports/2016/03/the-paris-agreement-is-a-treaty-and-should-be-submitted-to-the-senate>.

⁶¹ U.S. Department of State, *Handbook on Treaties and Other International Agreements (The C-175 Handbook)*, Supplementary Handbook on the C-175 Process: Routine Science and Technology Agreements, January 2001, <http://www.state.gov/e/oes/rls/rpts/175/1319.htm>.

⁶² *Ibid.*, 721.4(c).

⁶³ U.S. Department of State, Background Briefing, December 12, 2015.

- Development of methods and guidance to which PA Parties will be expected to conform concerning reporting on and achievement of NDCs;
- Protection of intellectual property in technology-related provisions;
- Use and outcomes of any appropriated funding, such as for operations of the Secretariat, bilateral cooperation with other Parties, or the GCF; and
- Overall outcomes of Parties' actions in light of the objectives of the UNFCCC and PA and in view of domestic concerns about potential economic and trade implications and climate effectiveness of the agreement.

Countries' Pledges to Contribute to GHG Emission Mitigation

What did the United States pledge as its Intended Nationally Determined Contribution (INDC) to global GHG mitigation?

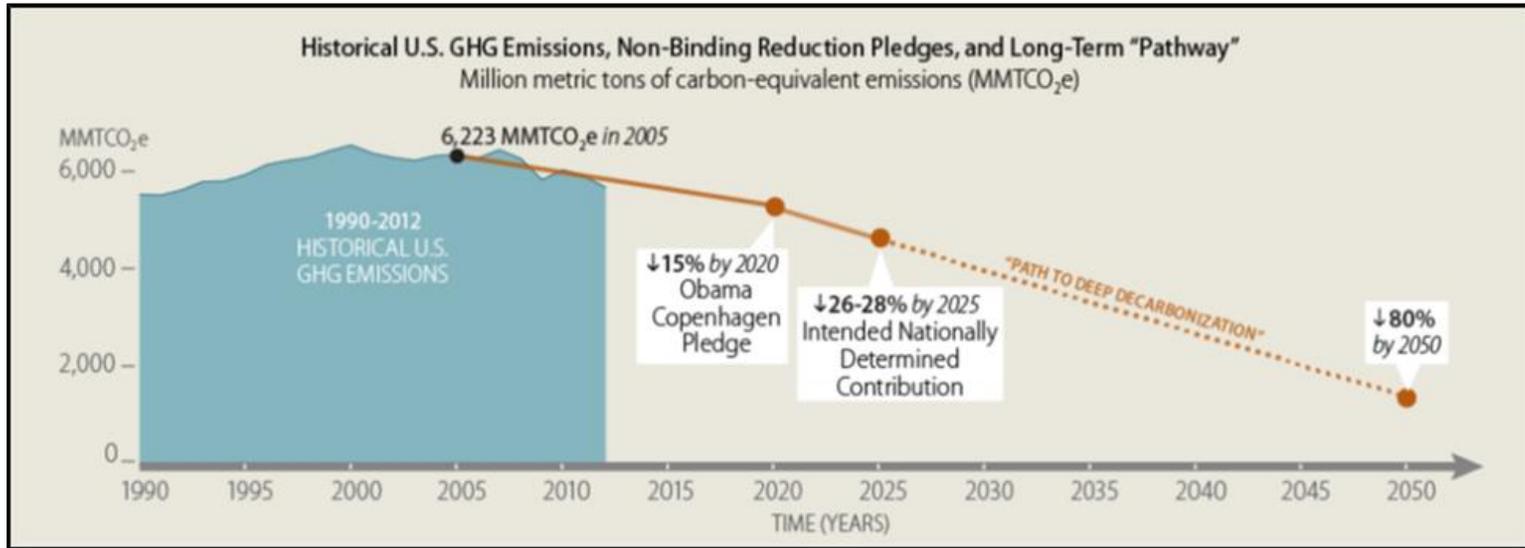
INDCs embody the pledges of countries to abate their GHG emissions and thus are critical to considering the overall effect of the PA. To support the negotiations, most UNFCCC Parties submitted statements or INDCs of the contributions they intended to make to the global effort to mitigate GHG emissions and, in some cases, adapt to climate change. The PA requires similar country-driven pledges from its Parties as Nationally Determined Contributions (NDCs), though the targets they set are not binding.

On March 31, 2015, the State Department formalized its INDC, a U.S. pledge to reduce U.S. GHG emissions by 26-28% by 2025 compared to 2005 levels.⁶⁴ The United States stated that it will “make best efforts to reduce its emissions by 28%.” The U.S. INDC is not explicitly conditional on other countries' actions.

The United States notes that its INDC is supported by domestic policy actions that place the nation on a course to reduce GHG emissions by 17% by 2020 below 2005 levels. The INDC also states that the U.S. 2025 target is consistent with a straight-line emission reduction path to “deep decarbonization” of 80% or more by 2050.

⁶⁴ U.S. Government, “U.S. Cover Note, INDC and Accompanying Information,” March 31, 2015, <http://www4.unfccc.int/submissions/indc/Submission%20Pages/submissions.aspx>.

Figure I. Illustration of the U.S. INDC GHG Reduction Pledge



Source: CRS, with data from U.S. Environmental Protection Agency. Based on U.S. Government, “U.S. Cover Note, INDC and Accompanying Information,” March 31, 2015, <http://www4.unfccc.int/submissions/indc/Submission%20Pages/submissions.aspx>.

Notes: These estimates are of net human-related emissions comprising gross emissions from energy and other sectors, net removals of CO₂ from the atmosphere by “land use, land use change, and forestry,” and sequestration of carbon in harvested wood products.

For more information on the U.S. INDC, see CRS In Focus IF10239, *President Obama Pledges Greenhouse Gas Reduction Targets as Contribution to 2015 Global Climate Change Deal*, by (name redacted).

Can the United States meet its 2025 GHG reduction pledge?

It is possible that the United States could meet its GHG reduction pledge in its INDC using both existing and additional policies under optimistic assumptions. However, many factors outside of federal policy could increase or decrease the likelihood of meeting the target. Any projection of future emissions is contingent on assumptions about future economic conditions and consumer preference, the size and structure of the energy sector, the influence of existing and new policy measures, and the modeling methods. Strategies being undertaken by states and localities and many in the private sector could enhance emission reductions. Rapid technological change in the energy sector may have an even greater influence.

At the end of 2015, the United States submitted its second biennial communication to the UNFCCC⁶⁵ that itemized actions that the United States was implementing or intended to take that would assist in reducing GHG emissions by 26-28% below 2005 levels by 2025. The State Department reported that, under then-current measures only, the United States could reduce GHG emissions (net of removals by sinks) by 12-16% below 2005 levels by 2025. This would be well short of the U.S. INDC target.

Then-existing measures in the analysis included the Environmental Protection Agency's Clean Power Plan, which set regulatory standards for CO₂ emissions from existing fossil-fuel-fired electric generating facilities.⁶⁶ However, the Supreme Court stayed the rule on February 10, 2016, until litigation challenging the rule has been adjudicated.

Thus, meeting the U.S. INDC would require currently implemented measures, the stayed Clean Power Plan (or a comparable alternative), and additional measures, according to the federal analysis. It would also require enhancing sinks of CO₂ in the land use sector. Including additional measures to abate GHG emissions that it said would be achievable under existing authorities, the analysis projected reductions of U.S. GHG emissions to 22-27% below 2005 levels by 2025.

Some analysts suggest that economic and technological factors may help reduce GHG emissions during this period. Important factors include natural gas prices, coal production productivity in some locations, environmental compliance costs, the retirement pattern of the aging coal-fired power plant fleet, restrained demand for electricity, falling costs of renewable energy and battery capacity (due to experience curves, economies of scale, and favorable regulatory and pricing policies in some locations), the financial risks of large capital investments, state and local policies, public support for renewable energy, and renewable energy tax extensions (to phase out by 2022). Some potentially countervailing factors include the relatively low operating costs of existing coal-fired plants, electricity grid constraints, and intermittency and storage challenges of

⁶⁵ U.S. Department of State, "2016 Second Biennial Report of the United States of American Under the United Nations Framework Convention on Climate Change," 2016. https://unfccc.int/files/national_reports/biennial_reports_and_iar/submitted_biennial_reports/application/pdf/2016_second_biennial_report_of_the_united_states_.pdf.

⁶⁶ See CRS Report R44341, *EPA's Clean Power Plan for Existing Power Plants: Frequently Asked Questions*, by (name redacted) et al. ; and CRS Legal Sidebar WSLG1359, *EPA's Clean Power Plan: Likely Legal Challenges - Part 1*, by (name redacted) and (name redacted) ; and CRS Legal Sidebar WSLG1360, *EPA's Clean Power Plan: Likely Legal Challenges - Part 2*, by (name redacted) and (name redacted) .

renewable energy technologies. Under most scenarios, fossil fuels remain strongly present in the U.S. energy economy through 2030.

What did other major GHG-emitting countries pledge as their INDCs?

Almost 190 Parties to the UNFCCC submitted INDCs that included pledges to address national GHG emissions. Nearly all announced specific GHG targets or actions to contribute to the evolving post-2020 regime. Some included pledges to prepare to adapt to forecasted climate change as well.

The UNFCCC Secretariat synthesized and assessed the pledges of the 189 UNFCCC Parties—representing about 99% of 2010 global emissions—that had submitted INDCs as of April 4, 2016.⁶⁷ The Secretariat estimated that implementation of the INDCs would result in aggregate global emissions of 55.0 (51.4 to 57.3) gigatons (Gt) CO₂e⁶⁸ in 2025 and 56.2 (52.0 to 59.3) Gt CO₂e in 2030. These estimates would be higher than the 2010 global emissions by 7-19% in 2025 and 8-23% in 2030. While these estimates indicate that GHG emissions would continue to rise to 2030, the rate of growth would be 8-23% in the period 2010-2030, perhaps cutting by 4-67%, the 24% rate of growth in 1990-2010. (The ranges of uncertainty capture a number of questions, including how to characterize INDC pledges made conditional on, for example, financial assistance.)

Below is a sampling of countries' INDC pledges, mostly from large emitting nations.⁶⁹

- China's INDC included myriad policies, existing and intended, and targets for 2030:
 - Achieve peaking of CO₂ emissions around 2030 and make best efforts to peak earlier;
 - Increase the share of non-fossil-fuel energy sources to around 20% of primary energy supply;
 - Lower CO₂ emitted per unit of GDP by 60-65% compared with 2005 levels;
 - Expand forest stock volume by around 4.5 billion cubic meters compared with 2005 levels;
 - Gradually establish a nationwide carbon emission trading system; and
 - “Proactively” adapt to climate change.
- The EU pledged to reduce its GHG emissions by at least 40% below 1990 levels by 2030.

⁶⁷ UNFCCC. “Aggregate Effect of the Intended Nationally Determined Contributions: An Update.” Bonn: United Nations, May 2, 2016. <http://unfccc.int/resource/docs/2016/cop22/eng/02.pdf>.

⁶⁸ CO₂e (also sometimes CO₂eq) means “CO₂ equivalents,” in which different GHG are weighted by Global Warming Potentials (GWP), in which their different impacts on forcing global temperature increase are indexed relative to carbon dioxide, which has a GWP of 1.

⁶⁹ A full set of submitted INDCs is available on the UNFCCC's website at <http://www4.unfccc.int/submissions/indc/Submission%20Pages/submissions.aspx>. For more information, see also CRS Report R44092, *Greenhouse Gas Pledges by Parties to the United Nations Framework Convention on Climate Change*, by (name redacted).

- India stated its intention to reduce the GHG emissions intensity⁷⁰ by 33-35% below 2005 levels by 2030, reach a 40% share of non-fossil installed electric capacity by 2030 with help and financing, increase carbon sinks by 2.5-3 billion tons CO₂e by 2030, and set qualitative goals to mitigate GHG and adapt to climate change.
- Mexico pledged an INDC to “peak” its GHG emissions by 2026.
- Canada’s INDC stated its intention to reduce its GHG emissions by 30% below 2005 levels by 2030.
- Russia offered an “indicator” of limiting GHG to 25-30% below 1990 levels by 2030, subject to “maximum possible account of absorbing capacity of forests.”

For more information, see CRS Report R44092, *Greenhouse Gas Pledges by Parties to the United Nations Framework Convention on Climate Change*, by (name redacted)

What if the United States or another Party does not meet its pledge?

The effect of the PA will depend both on the nonbinding pledges that Parties to it make and their achievement of those pledges. The PA relies on transparency, accountability, and peer and public pressure to motivate Parties’ compliance with both binding and nonbinding provisions rather than enforcement mechanisms with mandatory sanctions. Also, Article 15 of the PA establishes a mechanism to facilitate implementation of and promote compliance with the provisions of the PA that “shall be expert-based and facilitative in nature and function in a manner that is transparent, non-adversarial and non-punitive.”

One treaty expert has argued that “transparency, accountability, and precision can also make a significant difference” in gaining compliance with a treaty.⁷¹ The converse can be true: Even legally binding treaties or provisions—and provisions for non-compliance consequences—may not succeed in gaining compliance.⁷² Other analysts have concluded that, though the Kyoto Protocol had provisions for enforcement, with possible punitive consequences for Parties that did not comply with their obligations, those provisions did not visibly encourage compliance from some Parties.⁷³ However, reviews and compliance proceedings raised questions about reporting or other implementation actions of several Kyoto Protocol Parties, and those issues were corrected or resolved during the compliance procedures.⁷⁴ These incidents may be one indication that the procedures may promote compliance with procedural and technical matters.

Many states comply with treaty obligations even when there are not enforcement mechanisms. Hence, it is difficult to conclude that the legal format of particular provisions, or inclusion of penalties for non-compliance, would be requisite for the effectiveness of the PA. As a senior State Department official recently stated, “At the end of the day, what applies in a country are the rules

⁷⁰ Emissions intensity is emissions per unit of GDP.

⁷¹ Daniel Bodansky, “The Legal Character of the PA,” Social Science Research Network, March 22, 2016, <http://papers.ssrn.com/abstract=2735252>.

⁷² Several Parties to the Kyoto Protocol did not comply with their legally binding, quantitative GHG emission targets, even though formal compliance mechanisms had been agreed in the treaty without formal consequences.

⁷³ Achala Abeyasinghe, Caroline Prolo, and M. Hafijul Islam Khan, “Compliance in the 2015 Climate Agreement,” LDC Paper Series, November 2015. The final compliance reports for the Kyoto Protocol’s first period, 2008-2012, however, became available in August 2016.

⁷⁴ UNFCCC, *Compliance Under the Kyoto Protocol*, “Questions of Implementation,” http://unfccc.int/kyoto_protocol/compliance/items/2875.php.

and the laws that it has to implement its obligations, its commitments.”⁷⁵ The Senate Environment and Public Works Committee majority staff, however, expressed doubts about future compliance with the PA:

Just because a country signs a UNFCCC agreement does not mean the agreement has any legal effect in the country.... Countries that have signed and ratified an agreement have the freedom to act in their best interest and withdraw.... Kyoto was legally binding and countries still failed to comply. Non-binding targets in the Paris Agreement will not produce any greater confidence that countries will comply.⁷⁶

The details of the transparency and facilitative provisions of the PA will take shape even before the PA enters into force. Acting in accord with those provisions and details will become mandatory with entry into force. The effectiveness of those mechanisms will undoubtedly be closely monitored by government officials and public stakeholders for the duration of the agreement.

What effect might full compliance with the PA have on climate change?

According to scientific models of GHG-induced climate change, significant reductions of cumulative GHG emissions would reduce the induced temperature increase. There is wide scientific agreement that the more significant and earlier the GHG emission reductions, the greater the expected effect.⁷⁷ If countries were to comply fully with the vision and obligations of the PA, they would reduce their aggregate net GHG emissions to net zero emissions in the second half of this century (Article 4.1), thereby stabilizing GHG concentrations in the atmosphere. Over centuries, near-zero GHG emissions might limit GHG-induced climate change. Article 2 spelled out a goal of holding the increase in global average temperature to “well below” 2°C above pre-industrial levels and to pursue efforts to limit the increase to 1.5°C.

In principle, Parties could achieve the PA’s long-term temperature limits—but only if they ratchet their GHG reductions at a faster rate than was reflected on average in the INDCs. The UNFCCC Secretariat assessed that full compliance with the INDCs (mostly set to 2025 or 2030, including the conditional pledges) would still see rising global GHG trajectories in 2030, though the curve could be bending significantly toward a plateau.⁷⁸ A few Parties submitted INDCs that envisioned continued downward GHG emission trajectories to 2050 but none to net zero emissions by mid-century.

⁷⁵ U.S. Department of State, “Senior State Department Official on the Paris Agreement Signing Ceremony,” press release, April 20, 2016, <http://www.state.gov/r/pa/prs/ps/2016/04/256415.htm>.

⁷⁶ Senate Environment and Public Works Committee majority staff, “Lessons from Kyoto: Paris Agreement Will Fail National Economies and the Climate,” U.S. Senate, 114th Congress, April 21, 2016, http://www.eenews.net/assets/2016/04/21/document_gw_04.pdf.

⁷⁷ For example, the National Research Council stated that “the amount of warming expected to occur from CO₂ emissions depends on the cumulative amount of carbon emissions.... Meeting any specific emissions budget is more likely the earlier and more aggressively work is done to reduce emissions.” National Research Council. “Climate Change: Evidence, Impacts, and Choices,” 2011. pp 31-32. <http://nas-sites.org/americasclimatechoices/more-resources-on-climate-change/climate-change-lines-of-evidence-booklet/>.

⁷⁸ UNFCCC Secretariat, “Aggregate Effect of the Intended Nationally Determined Contributions: An Update,” May 2, 2016.

The UNFCCC Secretariat presented an analysis comparing the INDCs with externally developed GHG scenarios illustrating least-cost paths to a 2°C temperature limit.⁷⁹ (See **Figure 2**.) The assessment concluded that the INDCs would reduce GHG emission below the pre-INDC paths (which included policies to which countries had previously committed) and that full compliance with INDCs would result in emission levels well above many identified least-cost paths to achieving the temperature target:

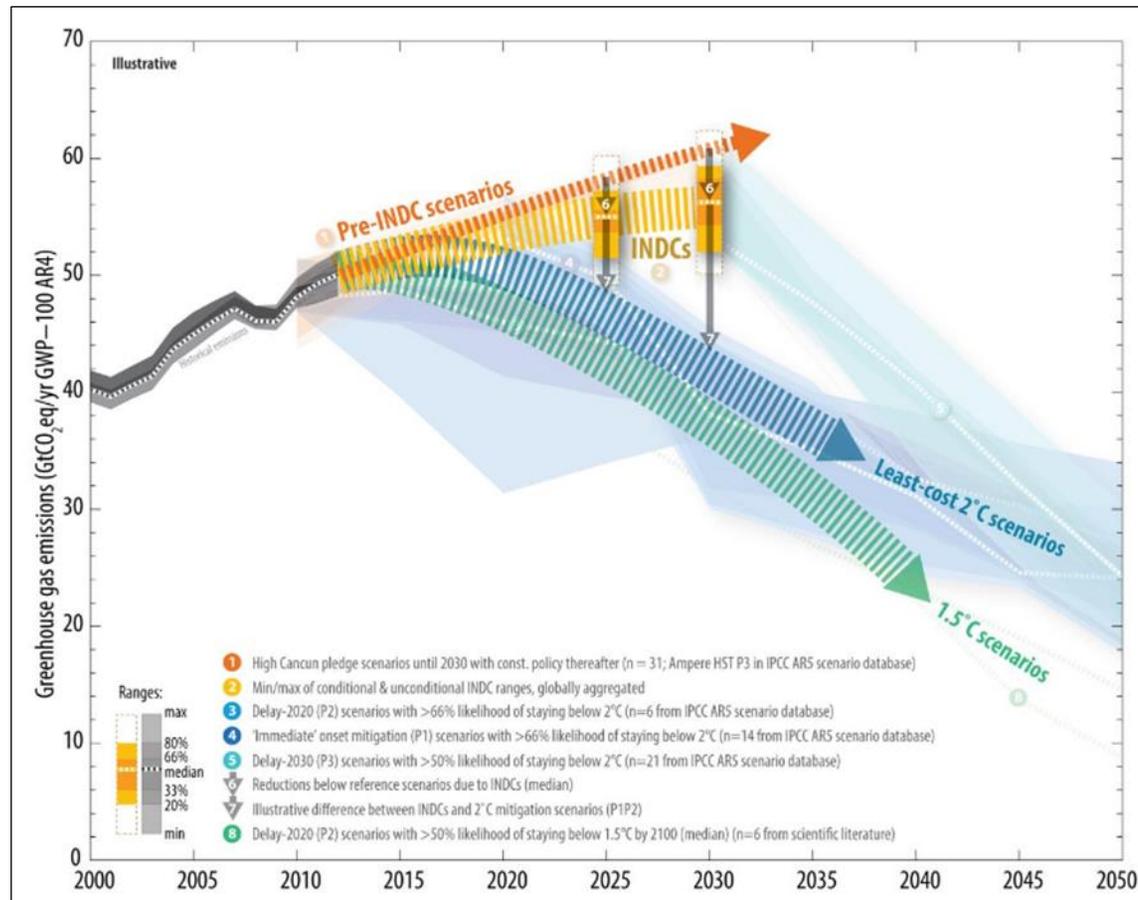
[G]lobal GHG emissions resulting from the implementation of the communicated INDCs are generally expected to be lower than the emission levels according to pre-INDC trajectories, by 2.8 (0.0 to 6.0) Gt CO₂eq in 2025 and 3.3 (0.3 to 8.2) Gt CO₂eq in 2030.... If all conditional components of the INDCs are implemented, the resulting global total emissions are expected to be even lower, by 3.7 (1.2 to 6.0) Gt CO₂eq in 2025 and 5.3 (.9 to 8.2) Gt CO₂eq in 2030 compared with emissions consistent with pre-INDC trajectories, while considering only the unconditional components of the INDCs reduces the emission difference from pre-INDC trajectories to 2.1 (-0.4 to 4.3) Gt CO₂eq in 2025 and 2.8 (-0.4 to 5.9) Gt CO₂eq in 2030. (paragraph 208 and footnote 65)

The gap between INDCs and least-cost paths to temperature targets well below 2°C or 1.5°C would presumably be larger.

Many stakeholders note that the INDCs are a starting point. In the past, some observers have compared the effort to mitigate GHG-induced climate change to turning around the course of a massive oil tanker: It necessarily takes time.

⁷⁹ More specifically, the scenarios would have a 66% likelihood of an increase less than the 2°C temperature limit.

Figure 2. Estimated Global Emission Levels Resulting from the Intended Nationally Determined Contributions in 2025 and 2030 Compared with Other Trajectories



Source: UNFCCC Secretariat, “Aggregate Effect of the Intended Nationally Determined Contributions: An Update,” May 2, 2016 (Figure 2).

Notes: AR4 = Fourth Assessment Report of the IPCC. AR5 = Fifth Assessment Report of the IPCC. GHG = greenhouse gas. GWP = global warming potential. HST = high short-term target. INDCs = intended nationally determined contributions. IPCC = Intergovernmental Panel on Climate Change.

Next Steps for the PA

The PA and the COP Decision that gave it effect identified numerous tasks to bring the PA into force and help it function effectively according to Parties' intentions. Some tasks have already begun. The "Ad Hoc Working Group on the PA" (APA) met for the first time in May 2016 in Bonn, Germany. The APA is preparing for the first session of the CMA, which will hold its first session in conjunction with the first session of the COP after the entry into force of the PA. (See question above, "When will the PA enter into force?") Thus, it would be conceivable—though very challenging—for the CMA to meet for the first time as early as November 2016.

Therefore, the timetable for the numerous preparations, development of guidance, and other activities mandated by the PA is uncertain, but it could conceivably take place over months rather than years. (See **Appendix**, "Schedule for Some Key Tasks Under the PA.") Many of those activities will require sensitive negotiations over issues that were controversial in the lead-up to the PA. One element of attention in the May meeting was joint stocktaking across the UNFCCC bodies to ensure coherence and institutional coordination among the workstreams. Interest also emerged regarding how to build from existing mechanisms and learn from experience. Although some were resolved in the PA itself, some will likely re-emerge in the post-PA sessions.

A complete list of tasks arising from the Decision to adopt the PA is available from the UNFCCC Secretariat.⁸⁰ Some highlights of the tasks:

- The CMA is to develop guidance on the information to be submitted in NDCs so that they are clear, transparent, and comparable.
- The UNFCCC Secretariat updated its October 2015 report analyzing countries' INDCs by its deadline of May 2, 2016.
- The Secretariat is due to establish a publicly accessible interim registry of the INDCs.
- Over a longer period, the CMA is tasked with agreeing on guidance to ensure measurement of PA Parties' performance on their NDCs. Elements of this guidance may consider criteria in the PA that NDCs should promote environmental integrity, transparency, accuracy, completeness, comparability, and consistency and avoid double counting.
- Countries were invited to communicate, by 2020, their mid-century, long-term low GHG emission development strategies.
- A review of the Warsaw Mechanism will occur in 2016.
- The Subsidiary Body for Scientific and Technological Advice under the UNFCCC is tasked with developing guidance for market-based systems that the PA recognizes will be used by Parties to meet their INDCs. The bodies will also develop a work program for considering other cooperative approaches, including non-market-based approaches, to GHG emissions reductions.
- The Adaptation Committee under the COP must develop methods to recognize the adaptation efforts of developing countries and for communication of Parties' priorities, implementation, support needs, plans, and actions and for recording them in a registry maintained by the Secretariat.

⁸⁰ UNFCCC Secretariat, "Taking the PA Forward: Tasks Arising from Decision 1/CP.21," March 2016, http://unfccc.int/files/bodies/cop/application/pdf/overview_1cp21_tasks_.pdf.

- The CMA will, in the 2020s, negotiate to set a new collective, quantified goal for climate finance by 2025.

In addition, there will be many requests for submissions of Parties views, developments of work programs, and reviews of existing approaches and mechanisms in the period to 2020. The topics will include capacity building, technology cooperation, adaptation, and more.

Appendix. Schedule for Some Key Tasks Under the PA

Chronology

Date	Task	Reference in PA or Decision
April 22, 2016	PA opens for signature at U.N. headquarters in New York City.	
May 16-26, 2016	Ad Hoc Working Group on the PA meets for its first session in Bonn, Germany. Review begins of Intended Nationally Determined Contributions (INDCs), transparency of action and support, the global stocktake, and other matters to prepare for the first meeting of the Conference of the Parties serving as the meeting of the Parties to the PA (CMA).	PA Art. 4, Art. 13, Art. 14, Art. 15
November 2016	At COP22 in Marrakech, Morocco: review of the Warsaw Mechanism on Loss and Damage, facilitative dialogue on finance, pre-2020 ambition, and implementation.	
April 21, 2017	PA signature period closes. After this date, states may become Parties to the PA by accession.	PA Art. 4.1, Art. 4.8
2017	Review the UNFCCC's adaptation-related institutional mechanisms—for reviewing the adequacy of support for adaptation and related questions—to prepare recommendations for actions by the CMA in its first session.	
2018	Facilitative dialogue on collective efforts of Parties, in INDCs, toward the long-term goal and to inform preparation of Nationally Determined Contributions (NDCs).	
2020	Finance: Date by when Copenhagen/Cancun pledge to facilitate \$100 billion annually from public and private sources.	
2020	Parties to submit new or updated NDCs.	
2023	First global stocktake on Mitigation, Adaptation, and Finance.	
2025	PA Parties must submit first revised NDCs.	
2025	Parties must set, prior to their 2025 meeting, a new collective quantified goal for mobilizing financial resources of not less than \$100 billion annually to assist developing country Parties.	
2030	Parties submit second revised NDCs.	

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