



International Climate Change: A Negotiations Side-by-Side

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Summary

Parties to the United Nations Framework Convention on Climate Change (UNFCCC), signed in 1992, gather for their 16th annual meeting in Cancun, Mexico, from November 29 to December 10, 2010. Several formal and informal negotiating sessions in 2010, intended to resuscitate the global negotiations to address climate change beyond the year 2012, have followed the 2009 meeting in Copenhagen, with which many countries and observers were disappointed.

Under the UNFCCC, 194 governments, including the United States, have taken on obligations to address climate change through enhanced scientific and technological cooperation, assessment of sources of greenhouse gas (GHG) emissions and removals, and policies and measures to mitigate GHG and to promote adaptation to climate changes. By the time the UNFCCC entered into force in 1994, countries agreed that these obligations were inadequate to achieve the objective of “stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.” By 1995, a Berlin Mandate called for negotiation of a new agreement for deeper abatement, but with no new obligations for developing countries. The resulting Kyoto Protocol established emission reduction targets in aggregate of at least 5% below 1990 levels during 2008-2012 for the “Annex I” (developed) Parties. It also established GHG reduction targets (“assigned amounts”) for all Annex I Parties. For the European Union, Japan, and the United States, the assigned amounts were 8%, 7%, and 6%, respectively, below their 1990 levels of GHG emissions. The Kyoto Protocol allowed some credits for enhanced sequestration by forests, and for three new emissions trading mechanisms. President Clinton signed the Kyoto Protocol in 1997. In 2001, President George W. Bush indicated that the United States would not become a Party to that agreement, citing its omission of GHG commitments for all major emitters, and possible adverse effects on the U.S. economy. U.S. policy continues to reject becoming a Party to the Kyoto Protocol.

The Kyoto Protocol had always been viewed as a first step toward deeper and longer term reductions of GHG emissions. In 2007, the Parties established an Ad Hoc Group on Further Commitments under the Kyoto Protocol (AWG-KP) to negotiate GHG reductions after 2012, when the Kyoto Protocol’s first commitment period ends. Also in 2007, Parties to the UNFCCC agreed to the Bali Action Plan, which set a mandate for negotiations among all Parties for future commitments on a “shared vision” for the long term, climate change mitigation, adaptation, technology, and financing. This second track, under the Ad Hoc Group on Long Term Cooperation (AWG-LCA), proceeds in parallel, with conflicting views among Parties as to how the two possible agreements may relate to each other or converge into one.

In 2009, many observers and Parties hoped that the hard-negotiated Copenhagen Accord might serve as the vehicle to bridge deep divides between the two negotiating tracks and various regional and economic groupings of countries. During formal and informal meetings in 2010, some Parties seemed to back away from their pledges under the Copenhagen Accord, although some progress was made on several technical issues. Some Parties seek to codify that progress in decisions by the Cancun Conference of the Parties. Others, including the United States, insist that all major issues be resolved in a “balanced package” of agreement(s).

Few expect much progress at the Cancun talks, although many seek a decision to extend the negotiating mandates with a deadline of 2011 for comprehensive, legally binding agreements on further GHG mitigation, financing, technology cooperation, and adaptation.

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Upcoming Negotiations Seek Future GHG Commitments

From November 29 to December 10, 2010, the Parties to the United Nations Framework Convention on Climate Change (UNFCCC) and to its subsidiary Kyoto Protocol plan to meet in Cancun, Mexico. While the political agreement enshrined in the Copenhagen Accord¹ of 2009 hangs in the background, ad hoc processes under the UNFCCC and the Kyoto Protocol proceed separately.² There is no common view on how to make further progress on these two tracks, or on how to produce one or two comprehensive and consistent agreements to govern commitments after 2012, except on a handful of limited topics (described further below and in **Table 1**).

The United States, along with a few other countries, insists that all elements under negotiation be agreed simultaneously, as a package that carefully balances the interests of different Parties.³ Other Parties, including China and many developing countries, seek decisions on those elements where Parties concur (such as on provision of financial assistance, preventing deforestation, and promoting technological advance), without requiring agreement on the more controversial elements (such as binding GHG reductions by Non-Annex I⁴ Parties).

Many Parties, particularly those least developed and perceived as most vulnerable to climate change, are calling for the Cancun meeting to set a mandate to negotiate a “comprehensive and ambitious” agreement by the subsequent meetings of the Parties in late 2011, to be held in South Africa.⁵ Other countries (e.g., Yemen, Cuba, and sometimes China, India, and Brazil) use procedural tactics arguably acting to prevent such an agreement. To the extent that there might be a consensus in favor of a new agreement, the Parties appear to have different conceptions of what it should include. Nevertheless, many Parties are promoting one or two agreements, together, that

- are legally binding;
- establish a second commitment period for the Kyoto Protocol to begin in 2012;
- include deeper emission cuts from the wealthiest countries than those pledged under the Copenhagen Accord (see next section);

¹ Official text available at <http://unfccc.int/resource/docs/2009/cop15/eng/11a01.pdf>.

² For background on the international negotiations on climate change, see CRS Report R40001, *A U.S.-centric Chronology of the International Climate Change Negotiations*, by Jane A. Leggett; CRS Report RL34260, *Climate Change: Issues Underlying Negotiations at the Bali Conference of Parties*, by Susan R. Fletcher, Larry Parker, and Jane A. Leggett; and CRS Report R41175, *International Agreements on Climate Change: Selected Legal Questions*, by Emily C. Barbour.

³ Formalizing agreement on only some elements where consensus is near, such as financing, technology, and others—and which developing countries seek—arguably would give away elements of leverage to gain agreement on other issues, such as Non-Annex I GHG commitments, and reporting, monitoring and verification of actions, which many developing countries resist. Many developing countries are unhappy with the stance that “nothing is agreed until everything is agreed.”

⁴ “Annex I Parties” are those countries and regional economic integration organizations (i.e., the European Union) listed in Annex I of the UNFCCC. This list includes the high income, industrialized countries, including those of the former Soviet Union. “Non-Annex I Parties” are those Parties to the UNFCCC not listed in its Annex I. These are often referred to as developing countries, although income levels overlap across some Annex I and Non-Annex I Parties. A divisive element of negotiation is when and under what conditions a Non-Annex I Party may “graduate” to Annex I.

⁵ Discussions are under way possibly to hold the 2012 meeting in Qatar.

- include comparable but differentiated GHG emission reductions (below business-as-usual) from countries that do not already have targets, including the United States (which is not a Party to the Kyoto Protocol), China, and other major GHG emitters;
- lock in specific amounts and mechanisms for international financing;^{6,7}
- ensure transparency of pledges, actions taken, and finance provided; and
- provide for review of the implementation, objectives, and/or adequacy of the agreement.

Whether to establish a quantitative objective for international cooperation is among the contentious issues. Many, claiming support from the scientific literature, promote obligations sufficient to avoid future global temperature increases of 2° Celsius or less. (Some, also claiming scientific support, advocate for a temperature ceiling of 1.5° C or less.) Such temperature objectives are associated with GHG reductions globally by 2050 of 50% or more below 1990 levels; many expect that GHG reductions of 80% or more from 1990 or 2005 levels should be made by the United States and other high- to moderate-income countries, which have GHG emissions per capita several times higher than the low income countries.⁸ Most of the low income, large emitting countries (such as China, India, and South Africa) oppose global targets, presumably because of the implications for developing country shares of GHG reductions necessary to achieve the global targets.

Different views on which countries should take on binding GHG emission commitments, and when, are among the most challenging obstacles to the current negotiations. The United States, the European Union (EU), the Small Island States,⁹ and other countries seek agreement on differentiated and fair emission cuts simultaneously from all the world's largest emitters, not only those currently included in Annex I of the UNFCCC. China and others of these largest developing country emitters, however, contend that the current Annex I Parties must make deeper GHG reductions and provide funding to developing countries *before* the Non-Annex I Parties "graduate" to legally binding obligations. These countries thus far have procedurally postponed discussion of graduation to Annex I and binding GHG commitments. Russia and other economies in transition (EITs) seek special treatment they received under the Kyoto Protocol to continue under any new agreement, which many other Parties oppose.

⁶ The Copenhagen Accord included "Fast-Start" financial pledges of \$30 billion during 2010-2012, and a long-term goal of \$100 billion annually by 2020 "in the context of meaningful mitigation actions and transparency on implementation." Funding was agreed to flow from public and private, bilateral and multilateral, and alternative sources. While most Annex I Parties have indicated, and begun to provide, Fast-Start financial assistance, it is unclear what the status of these agreements will be as the Copenhagen Accord was not adopted by the Parties. Still, a large majority of stakeholders believe that follow-through on these financial pledges is essential to rebuilding trust of the Annex I Parties (which have not fully met past pledges) and constructive engagement of developing countries.

⁷ On financial arrangements, see also CRS Report R41165, *Global Environment Facility (GEF): An Overview*, by Richard K. Lattanzio and CRS Report R41302, *Climate Investment Funds (CIFs): An Overview*, by Richard K. Lattanzio.

⁸ For comparison of GHG emissions across major countries, see CRS Report RL32721, *Greenhouse Gas Emissions: Perspectives on the Top 20 Emitters and Developed Versus Developing Nations*, by Larry Parker and John Blodgett.

⁹ Formally, the AOSIS group of 42 countries represents the Alliance of Small Island States and low-lying coastal countries, and includes such diverse members as the Bahamas, Belize, Cuba, Guinea-Bissau, the Marshall Islands, Palau, Singapore, Papua New Guinea, Trinidad and Tobago, Tuvalu, and Saint Lucia.

Closely coupled with commitments to address GHG emissions are questions of how to increase transparency and encourage compliance by Parties with those commitments. For Annex I Parties, “monitoring, reporting, and verification” (MRV) already proceeds under guidelines and procedures under the UNFCCC and the Kyoto Protocol, although several issues and enhancements are under negotiation. The Copenhagen Accord also provides for MRV of financing provided by Annex I Parties and of the actions so financed in developing country Parties. Because of objections by China and others of “intrusive” international processes, and concerns about giving up sovereignty, the Nationally Appropriate Mitigation Actions (NAMAs) that Non-Annex I Parties have pledged under the Copenhagen Accord would be subject to International Consultation and Analysis (ICA)—yet to be defined. Most Parties see MRV and ICA as supporting transparency and capacity-building, not punitive. Since 2009, however, China and some other Non-Annex I Parties may have fallen back to pre-Copenhagen positions, that only self-verification should be expected of developing countries. Some of the countries most vulnerable to climate change have voiced more loudly that all major emitters must provide transparency regarding their actions and impacts on GHG trajectories.

Many participants in the negotiations and observers have noted that, although some technical progress has been made since 2009, recent meetings have included repetition of well known and intransigent positions. Many have pointed to these divisions, and the extreme difficulty of reaching unanimous consent among 194 Parties in the best of circumstances, and suggest that the United Nations may no longer be the sole or most productive forum for achieving international cooperation to address climate change. (Discussed further below.)

United Nations Negotiations Run on Two Tracks

Negotiations on further cooperation to address climate change internationally have proceeded on two official tracks since 2007.

- The first track is under the Kyoto Protocol, which is subsidiary to the Convention. Pursuant to the Kyoto Protocol, (developed) Parties listed in Annex I made commitments to reduce GHG during 2008 to 2012. Now, all Parties are negotiating to consider a second commitment period for the post-2012 era. The United States does not participate in these negotiations because it is not a Party to the Kyoto Protocol, and has consistently opposed becoming a Party to the Kyoto Protocol.
- The second track proceeds directly under the Convention, under the Bali Action Plan.¹⁰ Negotiations pursuant to the Bali Action Plan focus on five primary elements:
 1. a “shared vision” for reducing global GHG emissions by around 2050;
 2. mitigation of GHG emissions by developed and developing countries;
 3. adaptation to impacts of climate change;

¹⁰ For more detail on the Bali Action Plan (and the Kyoto Protocol), see CRS Report RL33826, *Climate Change: The Kyoto Protocol, Bali “Action Plan,” and International Actions*, by Jane A. Leggett.

4. financial assistance to low income countries; and
5. technology development and diffusion.

Requirements for reporting, monitoring, and verification (MRV) of GHG emissions, mitigation actions, and other national policies to achieve commitments are a theme through several of these five elements of negotiation.

The topics of negotiation overlap between the two tracks, and there is disagreement among Parties as to whether agreement must be reached under one track before agreement can be reached under the other. Many Parties express concern about potential incoherence between the two tracks, and some urge that the two tracks converge into a single agreement. Many Non-Annex I Parties insist that, before they engage in discussion of their own GHG commitments, the GHG reduction “numbers” be committed by Annex I Parties under an extension of the Kyoto Protocol.

In 2009 and early 2010, many countries and observers anticipated that the Copenhagen Accord had broken that impasse, by providing that all countries would pledge GHG reductions to be compiled in non-binding documentation. However, a few Parties (e.g., Cuba, Peru, Venezuela) blocked adoption of the Copenhagen Accord,¹¹ with the result that it has no legal status under the UNFCCC. Further, many Non-Annex I Parties (including China) have since insisted that negotiations proceed under the terms of the Bali Action Plan, rather than building from the agreements reached in the Copenhagen Accord, thereby undermining the progress that many Parties thought had been achieved in Copenhagen.

Table 1 identifies the major issues covered by the Kyoto Protocol, the Ad Hoc Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG-KP), the Ad Hoc Group on Long-Term Cooperation (AWG-LCA), and the Copenhagen Accord. The table summarizes the status and major positions for each major topic of negotiation. Necessarily, the table provides a simplified overview of the issues.

For two decades, the UNFCCC has been the formally agreed channel for addressing climate change among sovereign states. Many analysts consider that it provides a common framework for multi-national action while leaving implementation to those sovereign states. Within that framework, nations and other Parties (i.e., the European Union) decide, establish the means, monitor, and report on how they fulfill their obligations. The reporting with review by experts and the multi-national forum helps to support compliance by the Parties, along with dispute resolution and other non-compliance mechanisms. Nonetheless, China, Egypt, and a few other countries have protested proposals to set new reporting, monitoring, and verification (MRV) guidelines for them, guidelines that would approach those for the Annex I Parties, on the grounds that these could undermine their national sovereignty. However, the current impasse on MRV and several additional key issues, especially regarding how a global effort should be distributed and how transparency of efforts and results should be ensured, has raised questions about the efficacy of the UNFCCC over the coming years.

¹¹ A summary of the Copenhagen Accord and the meeting in Copenhagen is available in CRS Report R40001, *A U.S.-centric Chronology of the International Climate Change Negotiations*, by Jane A. Leggett.

Simultaneously, many observers underscore that most actions to mitigate climate change and to reduce vulnerability must be taken by local entities and private sector organizations. Representatives and advocates for the rights of indigenous populations and local communities had pressed for greater voice in how climate change will be addressed. Certain sectoral representatives, for example, of agricultural producers in developing countries, have also become more engaged in seeking special provisions under any new agreement, while the international aviation and maritime sectors gained provisions in the Kyoto Protocol that leave accord on their GHG mitigation to their own international fora, the International Civilian Aviation Organization and the International Maritime Organization, respectively (without reaching agreement on appropriate obligations). Governments of many municipalities around the world have formed their own organizations to commit to and support GHG mitigation and adaptation efforts. These are a few examples of the multiplicity of formal efforts now being pursued internationally. If the UNFCCC processes remain at virtual impasse, the array of distributed efforts may expand.

Questions About the Efficacy of the U.N. Forum

Some observers of the negotiations under the United Nations, including some government officials, question whether the U.N. process will be able to support future progress on cooperation to address climate change. These observers note the procedural and substantive difficulties encountered in the Copenhagen Conference of the Parties in 2009, as well as the broader challenge of reaching consensus among the 194 Parties to the UNFCCC, in the absence of agreed rules that would allow agreement by qualified majority.¹²

The flagging of progress under the United Nations is partly due to an apparent stalemate among key Parties and groups of Parties on major elements of cooperation. For example, in meetings in Tianjin, China in October 2010, a number of delegates noted that much discussion has devolved into repeated restatement of well known positions, although minor movements were also visible. The challenges have been apparent since the mid-1990s, however, as Parties were unable to agree on rules for reaching agreement other than unanimous consensus. Consequently, it has been possible for only one or a few countries to obstruct formal agreement on many issues in the negotiations.

Some suggest that further development of international climate change cooperation may be more successful, at least over the next few years, through bilateral agreements (e.g., the U.S.-China Strategic and Economic Dialogue), regional arrangements, alternative and smaller multilateral processes (e.g., the G-20), and private actions. For example, the Group of 20 (G-20) Finance Ministers agreed in 2009 to end subsidies to fossil fuels (although independent observers assert that no significant reductions have been achieved). In addition, the European Union, Japan, Norway, and many other countries have well established arrangements with China. These nations anticipate bilateral activities to help generate emissions trade that will enhance their technological competitiveness, while also helping those Annex I Parties to comply with their commitments under the Kyoto Protocol.

¹² See also CRS Report R41175, *International Agreements on Climate Change: Selected Legal Questions*, by Emily C. Barbour, which summarizes, “Unlike the adoption of amendments and annexes, the UNFCCC does not provide a rule for the adoption of protocols. The parties have, moreover, failed to reach an agreement on a voting rule in this context despite years of trying. In the absence of an agreed upon rule for the number of votes necessary to adopt a protocol, protocols are adopted by consensus.”

Interest in pursuing alternative vehicles for cooperation may be, in part, because of doubts that some countries (including the United States, China, Japan, and Australia) will follow through with their official pledges under the UNFCCC for GHG mitigation and financing. Certainly, the U.S. decision not to ratify the Kyoto Protocol has encouraged such skepticism.

Some observers, including businesses that seek greater certainty in their investment environments, now propose that an agreement among three to four countries, including the United States, the European Union, and China, would be the most productive next step. A growing number of observers suggest that using a greater multiplicity of avenues to address climate change could be most productive, with a variety of organizations taking charge in the domain to which it is best suited. Such a strategy could include such efforts as the Group of 20 Finance Ministers' commitment to end subsidies for fossil fuels,¹³ or the International Energy Agency's Implementing Agreement to support multi-national technology research.¹⁴ (There is little evidence to suggest that the commitment to phase-out subsidies is being achieved, however, leaving open the question of whether using more channels to address climate change will increase efficacy.)

Some observers are skeptical that anthropogenic¹⁵ emissions of GHG are leading to significantly adverse climate change.¹⁶ Others are unconvinced that global agreement can be reached and carried out. Still others object to giving greater authority to a supra-national (or national) organization, even to address global issues, or suspect that the United Nations and other institutions may be more concerned with enhancing their own influence and resources than with reducing the risks of climate change.¹⁷

The outcome of the next meeting of the Conference of the Parties may corral greater cooperation under the UNFCCC, or incite greater diffusion of efforts to alternative fora. While the prospects for cooperative action may increase by diversifying the multilateral vehicles, achieving comprehensive and least-cost arrangements may be diminished.

Not Just Carbon from Energy

While the UNFCCC emphasized carbon dioxide and its relationship to climate change, it identified a broader range of "greenhouse gases (GHG)." Under the Kyoto Protocol, the set of gases to be counted in Parties' emissions, and for compliance with the targets, included carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆)—sometimes referred to as the "basket of six" greenhouse gases. The HFC, PFC and SF₆ are almost entirely synthetically produced, not

¹³ The initial agreement can be found at <http://www.pittsburghsummit.gov/mediacenter/129639.htm>. Two progress reports can be found at <http://priceofoil.org/2010/11/08/g20-fossil-fuel-report/>, from two environmentally oriented groups, and at http://www.oecd.org/document/57/0,3343,en_2649_33713_45233017_1_1_1_1,00.html, from the Organization for Economic Cooperation and Development.

¹⁴ For an index of IEA's multilateral technology Initiatives, see <http://www.iea.org/techno/index.asp>.

¹⁵ Human-generated.

¹⁶ *China Daily* has reported, for example, about views of skeptics in China: http://www.chinadaily.com.cn/cndy/2010-02/03/content_9418037.htm.

¹⁷ See, for example, Michael Levi, "The UN Doesn't Understand Climate Change," Council on Foreign Relations, September 17, 2010.

occurring naturally in significant quantities. Some were created as substitutes for other compounds phased out by the Montreal Protocol on Substances that Deplete the Ozone Layer and subsequent amendments to it. Additional new chemicals are manufactured today that, although present in minute quantities, could have important effects on the atmosphere and climate, especially because many stay in the atmosphere for thousands to tens of thousands of years.

In the current negotiations, proposals include an expanded set of GHG, particularly new synthetically produced compounds.¹⁸ Currently listed for potential inclusion in an amendment to the Kyoto Protocol are

- perfluorinated compounds, including SF₆, nitrogen trifluoride(NF₃), and trifluoromethyl sulfur pentafluoride (SF₅CF₃);
- fluorinated ethers (HFEs); and
- perfluoropolyethers, such as perfluoropolymethylisopropyl ether (PFPMIE).

Despite controversy and concerns for unreliable accounting, the Kyoto Protocol allowed credit for reducing emissions from deforestation and other land use changes, and for removals of carbon from the atmosphere due to enhanced photosynthesis. However, the language was limited and challenging to implement without creating perverse incentives. Since then, technical analysis and negotiations have sought to improve methods and technologies for accounting for “land use, land use change, and forestry” (LULUCF) and to build new international partnerships and programs to “reduce emissions from deforestation and forest degradation” and to improve conservation (REDD+). While technical issues remains to be resolved, LULUCF and REDD+ negotiations have made progress, and a decision to codify those agreements could be decided as early as the Cancun meeting or, more likely, as part of a more comprehensive and “balanced package” of agreements, possibly at the South Africa Conference of the Parties in 2011.

Congressional Interests

Some Members of Congress do not consider climate change science to be sound or sufficiently advanced to merit the costs of GHG mitigation actions, domestically or internationally. Even among Members who view human-induced climate change as a significant risk, many are concerned with the goals and obligations that a treaty or other form of agreement might embody. Under the Copenhagen Accord, which is a political (not legal) commitment, President Obama pledged to reduce U.S. GHG emissions by 17% below 2005 levels by 2020 “in conformity with anticipated U.S. energy and climate legislation, recognizing that the final target will be reported to the Secretariat in light of enacted legislation.” The Copenhagen Accord also included pledges of financing from the developed countries in aggregate of \$30 billion during 2010 to 2012, and aiming at \$100 billion annually by 2020, with funds to come from both public and private sources.

¹⁸ See, for example, Intergovernmental Panel on Climate Change, *Safeguarding the Ozone Layer and the Global Climate System: Issues Related to Hydrofluorocarbons and Perfluorocarbons*, Cambridge University Press, 2009.

Some Members promote ambitious U.S. leadership internationally: beyond diplomatic advantages, they view the United States as bearing exceptional responsibility for climate change, having contributed more emissions than any other nation to the enhanced GHG concentrations in the atmosphere since the Industrial Revolution. In 2005, U.S. GHG emissions per capita were more than three times the world average, and almost five times that of developing countries.¹⁹ Some may also note that the United States is wealthier and hence better able to bear the costs of GHG mitigation than most other countries, and/or that there could be commercial and trade advantages to leading technological changes. Among the Members who might support concerted international action to address climate change, particular concerns regard parity of actions across Parties, and potential effects on trade competitiveness among countries.

For U.S. legislators, related issues include

- the compatibility of any international agreement with U.S. domestic policies and laws;
- consistency and potential reinforcement of other major policy goals (e.g., energy security, development assistance);
- the adequacy of appropriations, fiscal measures, and programs to achieve any commitments under the agreement;
- implications for employment, technological advance, and trade; and
- the desirable form of the agreement and related requirements.

While the Constitution gives authority to negotiate treaties to the President, any treaty would need the advice and consent of the Senate to ratification before it could be legally binding on the United States.

While the 111th Congress held many hearings and debated bills addressing aspects of climate change internationally, it remains to be seen the level of priority and specific questions to be raised by the 112th Congress.

¹⁹ According to data in the World Resources Institute, Climate Analysis Indicators Tool, extracted November 16, 2010. <http://cait.wri.org/>.

Table I. Comparison of International Issues by Agreement or Negotiating Forum

(as of November 2010)

Topic of Negotiation	Copenhagen Accord (2010) ^a	Ad Hoc Group on Long Term Cooperation (AWG-LCA) (Under the UNFCCC)	Ad Hoc Group on Further Commitments for Annex I Parties Under the Kyoto Protocol (AWG-KP) (Under the Kyoto Protocol - KP)	Kyoto Protocol (1997) ^b
Nature of Agreement	Political, not legally binding. "Noted," not accepted, by the UNFCCC Parties, so no formal status under the UNFCCC.	Intended to be legally binding. Many developed countries seek to coordinate both LCA and KP negotiating tracks, and some developing countries would possibly support a "common space" or limited joint discussions. USA says this is inappropriate as it is not a KP Party. Some Parties wish to formalize decisions on those issues with general agreement (technology, financing, REDD+ ^c). USA and others seek "balanced package" across all issues, especially to include NAI ^s commitments and MRV. ^h	Intended to be legally binding. Many developed countries seek to coordinate both LCA and KP negotiating tracks, and some developing countries would possibly support a "common space" or limited joint discussions. USA says this is inappropriate as it is not a KP Party. Small Island States advocate using KP as foundation for a single agreement with global commitments.	Became legally binding on Parties when it entered into force in 2005. (USA is not a Party.)
Share Vision/Long Term Objective	"Deep cuts" in global emissions are required "with a view to ... hold the increase in global temperature below 2° C."	Parties do not agree on the purpose or scope. Some conceive it as setting a long-term ceiling on global temperature rise (i.e., <2° C or <1.5° C) or common GHG reduction goal (e.g., 50% below 1990 levels). Some such "visions" quantitatively require GHG reductions by NAI ^s Parties. Some developing country proposals would expand scope to cover almost all topics under negotiation. China and Bolivia propose language to allocate a global carbon cap, which USA and others oppose.	Not proposed.	"In order to promote sustainable development."

Topic of Negotiation	Copenhagen Accord (2010) ^a	Ad Hoc Group on Long Term Cooperation (AWG-LCA) (Under the UNFCCC)	Ad Hoc Group on Further Commitments for Annex I Parties Under the Kyoto Protocol (AWG-KP) (Under the Kyoto Protocol - KP)	Kyoto Protocol (1997) ^b
Mitigation by Developed Countries	Annex I Parties ^d report GHG mitigation targets for 2020 or mitigation actions. Deadline was February 1, 2010. Reports compiled in non-binding documentation.	<p>Proposals for QELROS^e for developed countries range from levels of Copenhagen Accord pledges, to at least 45% below 1990 levels by 2020. Overlap with discussion in AWG-KP poses problems.</p> <p>Some Parties propose to inscribe all Parties' pledges under the Copenhagen Accord in a decision by the Conference of the Parties in 2010. Others, notably some NAI Parties, would have only pledges by AI Parties included in any such decision, or only that of the USA, which is not a Party to the Kyoto Protocol. Still others are concerned that including pledges in a decision in 2010 could make a later, binding agreement redundant and undermine further work under the AWG-LCA.</p>	<p>One option is a "top-down" aggregate target to be allocated among AI Parties. The "bottom-up" option would transform pledges made under the Copenhagen Accord into new QELROS,^e though assumptions and rules need clarification, especially on accounting of forest-related carbon and use of market mechanisms.</p> <p>Most NAI Parties consider AI Parties' pledges inadequate, seeking greater "ambition"—as much as 45% below 1990 levels by 2020. Yemen (G-77), China, India, Venezuela and others block "graduation" of additional Parties into abatement commitments.</p> <p>Japan and others insist NAI Parties step up to commitments as pledged by leaders in Copenhagen.</p> <p>Russia and other economies in transition (EITs) seek to carry over unused Assigned Amount Units from 1st commitment period, and to continue special status with less strenuous QELROS than other AI Parties.</p> <p>Negotiations are pressured to avoid a gap between the end of the 1st commitment period in 2012 and the beginning of any new commitment period. However, New Zealand and Russia oppose a 2nd commitment period without global participation.</p>	UNFCCC AI Parties agreed collectively to reduce their GHG emissions by at least 5% below 1990 levels during the period 2008-2012, and specific "assigned amounts" are listed for each Party in Annex B. Russia and some other economies in transition have targets higher than their projected (and current) emissions.

Topic of Negotiation	Copenhagen Accord (2010) ^a	Ad Hoc Group on Long Term Cooperation (AWG-LCA) (Under the UNFCCC)	Ad Hoc Group on Further Commitments for Annex I Parties Under the Kyoto Protocol (AWG-KP) (Under the Kyoto Protocol - KP)	Kyoto Protocol (1997) ^b
Monitoring, Reporting, and Verification (MRV) for Developed Parties	Under UNFCCC, AI Parties report GHG inventories annually and National Communications every five years, using agreed reporting guidelines. ^f	Many Parties support using and enhancing existing KP provisions for MRV, and to apply to USA. USA stresses that MRV for developed country Parties must exist in tandem with ICA ⁱ for developing country Parties.	MRV developed and applied under the KP would be enhanced, especially for reporting on emissions and sequestration related to Land Use, Land Use Change, and Forestry (LULUCF).	Requires national systems for GHG emission and removal estimation, according to agreed methods. Annual GHG inventories and supplemental information must demonstrate compliance with commitments. Verification by expert review teams and review of National Communications, which periodically are in-country.
Mitigation by Developing Countries	Non-Annex I Parties ^g report Nationally Appropriate Mitigation Actions (NAMA) before February 1, 2010, compiled in non-binding documentation. Least Developed Countries and small island developing states become a new mitigation grouping that may identify actions voluntarily and with financial support.	Most Annex I Parties insist that GHG abatement commitments expand to be “common” to all major emitters and moderate income countries. They advocate compiling Copenhagen pledges into new agreement. China, India, Brazil, and others argue this contradicts the “differentiated responsibilities” principle in the UNFCCC.	Many AI Parties seek progress on GHG abatement commitments under the AWG-LCA before agreeing on a 2 nd commitment period for AI Parties under this track. Many NAI Parties have blocked any discussion of NAI abatement commitments until they are satisfied with the AI commitments. This divide has led to procedural obstacles for both tracks of negotiation. As a result, some Parties (New Zealand, Australia, Small Island States, South Africa) have begun to seek convergence of the two negotiating tracks under a single agreement, or as two agreements under a single umbrella agreement.	None specified, although all Parties to the UNFCCC share general obligations under Art. 4, paragraph 1, with “common but differentiated responsibilities,” taking into account their specific national and regional development priorities, objectives, and circumstances.

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Monitoring, Reporting, and Verification (MRV) for Developing Country Parties	Non-Annex I Parties submit National Communications bi-annually, including reports on domestic MRV of implementation of their mitigation actions. National Communications will be subject to <i>international consultations and analysis (ICA)</i> ⁱ with respect for national sovereignty. Mitigation actions (as well as technology, financing and capacity-building) supported by international finance are subject to international MRV.	<p>Some propose a registry of developing countries' Nationally Appropriate Mitigation Actions (NAMAs); India and others support a NAMA Registry and review only for actions supported by international funding.</p> <p>China and many NAI Parties state that international scrutiny of their domestic actions is counter to the UNFCCC and unacceptable. China claims no need for an overall MRV framework or new MRV institutions. Saudi Arabia argues for self-review.</p> <p>South Africa, Korea, USA, and others emphasize facilitative process, building transparency and capacity through multi-lateral reviews.</p> <p>USA and Australia emphasize need to operationalize MRV in 2010. USA, Norway, Japan, Turkey, and others propose that the 2006 GHG guidelines adopted by the Parties apply to all Parties, but recognizing differences in capabilities, and possibly adjusting frequencies of reporting.</p> <p>Brazil, G-77, and others stress close linkage between MRV of mitigation actions and MRV of financial support by developed countries.</p>	Not under discussion.	None specified. (Under the UNFCCC, all Parties must report GHG inventories. But some Non-Annex I Parties have blocked agreement on the periodicity of reporting and terms of review for Non-Annex I Parties.)

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Market Mechanisms	Agreement to use multiple approaches, including markets, to promote mitigation actions.	<p>Many countries want use of international market mechanisms to be smaller than domestic GHG_i mitigation.</p> <p>USA and Japan seek language to allow emission offsets not generated under the CDM, while China and others try to block this. EU proposes to allow new market mechanisms; opposed by Bolivia, Egypt, and others.</p>	<p>Many Parties want to continue the KP architecture of market mechanisms established. Reforms are sought since mechanisms have not been used as much as anticipated, and have not engaged most of the Non-Annex I Parties.</p> <p>Parties expect to use mechanisms to meet QELROS,^e and want rules defined before finalizing commitments. Some Parties fear market mechanisms demotivate domestic GHG reductions or shift abatement responsibilities to developing countries.</p> <p>Proposals include sectoral emissions trading between AI and NAI Parties. (See Sectoral Approaches.)</p>	<p>Establishes 3 market mechanisms for crediting GHG reductions: (1) Emissions Trading allows transfer of “assigned amounts” among Annex I Parties; (2) Joint Implementation allows transfer of project-based GHG “emission reduction units” across Annex I Parties; (3) the Clean Development Mechanism allows crediting of “certified emission reductions” created in non-Annex I countries if approved by the Executive Board.</p>

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Response Measures (referring to provisions concerning impacts of GHG mitigation response measures on other countries)	No mention.	<p>Options might prohibit border measures against goods from any developing country Parties or only if measures are arbitrary or unjustified discrimination in trade. Other options echo existing UNFCCC language.</p> <p>Brazil and China propose language that would require international consensus for any Party to set GHG mitigation measures that might have any impact on developing country exports or global trade. USA and EU oppose.</p> <p>Some propose a new forum for identifying and addressing adverse impacts on other Parties. Others consider existing fora to suffice.</p>	<p>Debate continues over the means and extent to which to Annex I Parties should address potential economic, social, and environmental consequences of their climate change policies on other Parties. Argentina, Saudi Arabia, Sudan, China and others push for a new forum to address compliance by AI Parties, while most AI Parties point out that existing mechanisms already perform that function.</p>	<p>Annex I Parties strive to implement policies in such a way as to minimize adverse effects, including adverse effects of climate change, on international trade, and social, environmental and economic impacts on other Parties, especially developing country Parties.</p>

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Financing	<p>“Fast-Start” pledges of \$30 billion during 2010-2012, and a long-term goal of \$100 billion annually by 2020 “in the context of meaningful mitigation actions and transparency on implementation.” Funding will come from public and private, bilateral and multilateral, and alternative sources. Some developing countries do not want to count financing that flows through emissions trading markets, however.</p> <p>Calls for financing to support mitigation, adaptation, REDD-plus, technology development and transfer, and capacity building.</p> <p>Establishment of the Copenhagen Green Climate Fund under the Global Environment Facility (GEF), managed by the World Bank to support international financing.</p> <p>A Secretary-General’s High Level Advisory Group on Climate Change Financing (AGF) released in November 2010 a report identifying options to raise the \$100 billion of long-term financing sought under the Copenhagen Accord. It concludes raising \$100 billion is feasible and emphasizes putting a price on carbon, such as carbon taxes on international bunker fuels, carbon trading markets, and public sources, such as a shift away from fossil fuel subsidies.</p>	<p>General agreement exists to establish a new fund with a board, trustee, and secretariat. The fund should be accountable to the COP.</p> <p>G-77 wants a new mechanism managed by the COP, giving more weight to developing country votes than if managed by the World Bank or other options preferred by the AI Parties.</p> <p>Most AI Parties expect most financing to come from private sector via some kinds of market mechanisms, with a minor portion via foreign aid and other public funds. G-77 seek public funding, believing it is more reliable and easier to direct than private investment. Some consider funding through private markets to be a transfer of responsibility from developed to developing countries.</p> <p>Many seek equal financing attention to adaptation and GHG mitigation. Some would direct financing to Least Developed Countries and those most vulnerable to climate change. Others want all developing countries treated equally.</p> <p>Some Parties propose quantity of financing should be 1.5% of each Annex I Party’s GDP.</p> <p>Options for MRV of financing include use of current mechanisms, new guidelines.</p>	<p>No specific provisions for financing. The market mechanisms, however, constitute incentives for the private sector to finance least-cost GHG abatement to sell as credits, such as under the Clean Development Mechanism.</p> <p>Flows of financing under the KP market mechanisms have been much smaller than anticipated. They have been associated with investments in only a few developing countries, primarily China.</p>	<p>The Protocol’s “mechanisms” result in financing for GHG reductions through sale (or other terms of transfer) of assigned amounts, emission reduction units, or certified emission reductions. The generated financing has been lower than anticipated for several reasons, including non-participation of the United States in the Kyoto Protocol, and high transaction costs under the Clean Development Mechanism.</p> <p>A share of the proceeds of GHG credits under the Clean Development Mechanism are earmarked to support adaptation in low income countries.</p>

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Adaptation	Developed countries shall provide adequate, predictable and sustainable financial resources, technology and capacity-building to support adaptation action in developing countries.	Attention to needs for adaptation is higher than in other negotiations, and all Parties support it generally. Disagreement over institutional arrangements to support it. G-77 and China advocate an Adaptation Committee, to develop guidelines, review implementation, and ensure equitable funding for developing countries. Other countries propose to identify adaptation functions that could be met by existing institutions and possibly a new entity.	Not under negotiation.	General commitments by all Parties to support adaptation to climate change.
Technology	Establishment of a Technology Mechanism to “accelerate technology development and transfer ...” and to be “guided by a country-driven approach.”	Near consensus to establish a Climate Technology Centre (CTC) and Technology Executive Committee (TEC), with options for relationships with, <i>inter alia</i> , existing regional technology centers. The Copenhagen Green Climate Fund would be one source of funding. Views are divided on treatment of Intellectual Property and on links to market mechanisms and other financing mechanisms.	Not under negotiation.	General commitments only.

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Capacity-Building	Included at target for financing.	Some NAI Parties seek separate mechanisms and funding to support capacity-building; many AI Parties advocate that capacity-building be treated as a component of mitigation, adaptation, and technology support. Many view capacity-building as unlikely to draw much private funding, and so a major target for public financing.	Not under negotiation.	General commitments only.
Forest Carbon/Reducing Emissions from Deforestation and Forest Degradation, and Forest Conservation (REDD+)^c	Immediate establishment of a mechanism including REDD-plus, to enable mobilization of international financing.	USA proposes that all credible GHG reductions be countable. Many Parties support fast-start (public) funding to support “readiness” capacity-building, and market-type financing for high quality emission reductions. Resistance to address REDD+ comes especially from Bolivia and Saudi Arabia.	Parties debate treatment of accounting for forest management, harvested wood products, and force majeure, as well as the reference levels for measuring sequestration or emissions. Whether to include emissions impacts of net change in wetlands is explored.	Net changes in certain land use emissions or removals are counted with or offset GHG emissions.

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Other Sectoral Approaches	No mention.	<p>Bunker fuels: Addressing international aviation and maritime emissions (bunker fuels), and agriculture. Some advocate global sectoral targets for GHG reductions, with EU proposing cuts of 10% for aviation and 20% for shipping below 2005 levels. On bunker fuels, some Non-Annex I Parties seek “differentiated” treatment.</p> <p>USA, Canada, Japan, Norway call for medium and long term goals to be set by ICAO and IMO, not to be addressed under UNFCCC.</p> <p>Proposals by some Parties include setting taxes on emissions from bunker fuels to motivate reductions and to generate revenues for international finance. (See Financing.)</p> <p>Agriculture: With impetus from some agricultural groups, negotiations consider options to account for reduction of agricultural emissions, sequestration; research on technologies and management systems; funding for monitoring; “innovative payment mechanisms”; and funding to support mitigation and adaptation in the context of “pro-poor development.”</p>	<p>Bunker Fuels: Emissions from aviation and maritime bunker fuels were excluded from the KP and delegated to resolution by the International Civil Aviation Organization and the International Maritime Organization. Neither forum has reached agreement on how to address bunker fuel emissions, beyond aspirational efficiency goals. Consequently, the EU proposes to include these emissions in its Emission Trading Scheme, opposed by the USA and other countries, the vehicles of which would be subject to the EU rules within its territories.</p> <p>Proposal for voluntary sectoral “emission thresholds” in NAI Parties; if a Party’s emissions are below such threshold, it may trade such units that may be used for compliance by AI Parties (i.e., sectoral emissions trading).</p>	<p>Emissions from aviation and marine bunker fuels are excluded from national targets, with abatement measures to be pursued the International Civil Aviation Organization (ICAO) and the International Maritime Organization (IMO). No binding agreements have been reached.</p>

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Future Reviews and Possible Revisions of Commitments	Assessment of the Copenhagen Accord, to be completed by 2015, that would include consideration of strengthening the “long-term goal” of the Accord.	Proposals for future reviews and revisions include options for lowering the target for long-term temperature change; criteria for reviews; and whether reviews should include actions by NAI Parties in addition to AI Party actions and financing. First review would begin by 2013 and be conducted or concluded in 2015, with subsequent reviews every five years.	Calls for comprehensive reviews of the KP and ensuing “appropriate action.” First review to begin by 2014 and conclude by 2016. Further reviews periodically, with 4 years as the sole current proposal, unless the Parties decide otherwise.	The first review took place at the 2 nd meeting of the Conference of the Parties serving as the Meeting of the Parties to the Protocol, in 2006. To take place periodically thereafter.

Source: CRS.

- a. The text of the Copenhagen Accord is available at <http://unfccc.int/home/items/5262.php>.
- b. The text of the Kyoto Protocol is available at http://www.oecd.org/document/57/0,3343,en_2649_33713_45233017_1_1_1_1,00.html.
- c. REDD+ is Reducing Emissions from Deforestation and Forest Degradation and Conservation, and refers to policies, measures, partnerships, and financing that are intended to slow deforestation and land degradation and provide for financing through, inter alia, market-like mechanisms.
- d. “Annex I Parties” (AI Parties) are those countries and regional economic integration organizations (i.e., the European Union) listed in Annex I of the UNFCCC. This list includes the high income, industrialized countries, including those of the former Soviet Union.
- e. QELROS are Quantitative Emission Limitation and Reduction Objectives, or “the numbers” for Parties’ GHG reduction commitments embodied in the Kyoto Protocol and any new agreement.
- f. These provisions exist under the UNFCCC and so are not included in the Copenhagen Accord, but are noted in this table because of their relevance to on-going negotiations.
- g. “Non-Annex I Parties” (NAI Parties) are those Parties to the UNFCCC not listed in its Annex I. These are often referred to as developing countries, although income levels overlap across some Annex I and Non-Annex I Parties. A divisive element of negotiation is when and under what conditions a Non-Annex I Party may “graduate” to Annex I.
- h. MRV is Monitoring, Reporting, and Verification, and may apply to GHG abatement and/or financing.
- i. “International Consultation and Analysis” (ICA) is the phrase embodied in the Copenhagen Accord referring to international procedures for consideration of developing countries’ mitigation actions that are not financed internationally.
- j. GHG are greenhouse gases.

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