The Copenhagen Accord

Advance unedited version
Decision -/CP.15

The Conference of the Parties,
Takes note of the Copenhagen Accord of 18 December 2009.

Copenhagen Accord

The Heads of State, Heads of Government, Ministers, and other heads of the following delegations present at the United Nations Climate Change Conference 2009 in Copenhagen: [List of Parties]

In pursuit of the ultimate objective of the Convention as stated in its Article 2,
Being guided by the principles and provisions of the Convention,
Noting the results of work done by the two Ad hoc Working Groups,
Endorsing decision x/CP.15 on the Ad hoc Working Group on Long-term Cooperative Action and decision x/CMP.5 that requests the Ad hoc Working Group on Further Commitments of Annex I Parties under the Kyoto Protocol to continue its work,
Have agreed on this Copenhagen Accord which is operational immediately.

1. We underline that climate change is one of the greatest challenges of our time. We emphasise our strong political will to urgently combat climate change in accordance with the principle of common but differentiated responsibilities and respective capabilities. To achieve the ultimate objective of the Convention to stabilize greenhouse gas concentration in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system, we shall, recognizing the scientific view that the increase in global temperature should be below 2 degrees Celsius, on the basis of equity and in the context of sustainable development, enhance our long-term cooperative action to combat climate change. We recognize the critical impacts of climate change and the potential impacts of response measures on countries particularly vulnerable to its adverse effects and stress the need to establish a comprehensive adaptation programme including international support.

2. We agree that deep cuts in global emissions are required according to science, and as documented by the IPCC Fourth Assessment Report with a view to reduce global emissions so as to hold the increase in global temperature below 2 degrees Celsius, and take action to meet this objective consistent with science and on the basis of equity. We should cooperate in achieving the peaking of global and national emissions as soon as possible, recognizing that the time frame for peaking will be longer in developing countries and bearing in mind that social and economic development and poverty eradication are the first and overriding priorities of developing countries and that a low-emission development strategy is indispensable to sustainable development.

3. Adaptation to the adverse effects of climate change and the potential impacts of response measures is a challenge faced by all countries. Enhanced action and international cooperation on adaptation is urgently required to ensure the implementation of the Convention by enabling and supporting the implementation of adaptation actions aimed at reducing vulnerability and building resilience in developing countries, especially in those that are particularly vulnerable, especially least developed countries, small island developing States and Africa. We agree that developed countries shall provide adequate, predictable and sustainable financial resources, technology and capacity-building to support the implementation of adaptation action in developing countries.

4. Annex I Parties commit to implement individually or jointly the quantified economy-wide emissions targets for 2020, to be submitted in the format given in Appendix I by Annex I Parties to the secretariat by 31 January 2010 for compilation in an INF document. Annex I Parties that are Party to the Kyoto Protocol will thereby further strengthen the emissions reductions initiated by the...
Kyoto Protocol. Delivery of reductions and financing by developed countries will be measured, reported and verified in accordance with existing and any further guidelines adopted by the Conference of the Parties, and will ensure that accounting of such targets and finance is rigorous, robust and transparent.

5. Non-Annex I Parties to the Convention will implement mitigation actions, including those to be submitted to the secretariat by non-Annex I Parties in the format given in Appendix II by 31 January 2010, for compilation in an INF document, consistent with Article 4.1 and Article 4.7 and in the context of sustainable development. Least developed countries and small island developing States may undertake actions voluntarily and on the basis of support. Mitigation actions subsequently taken and envisaged by Non-Annex I Parties, including national inventory reports, shall be communicated through national communications consistent with Article 12.1(b) every two years on the basis of guidelines to be adopted by the Conference of the Parties. Those mitigation actions in national communications or otherwise communicated to the Secretariat will be added to the list in appendix II. Mitigation actions taken by Non-Annex I Parties will be subject to their domestic measurement, reporting and verification the result of which will be reported through their national communications every two years. Non-Annex I Parties will communicate information on the implementation of their actions through National Communications, with provisions for international consultations and analysis under clearly defined guidelines that will ensure that national sovereignty is respected. Nationally appropriate mitigation actions seeking international support will be recorded in a registry along with relevant technology, finance and capacity building support. Those actions supported will be added to the list in appendix II. These supported nationally appropriate mitigation actions will be subject to international measurement, reporting and verification in accordance with guidelines adopted by the Conference of the Parties.

6. We recognize the crucial role of reducing emission from deforestation and forest degradation and the need to enhance removals of greenhouse gas emission by forests and agree on the need to provide positive incentives to such actions through the immediate establishment of a mechanism including REDD-plus, to enable the mobilization of financial resources from developed countries.

7. We decide to pursue various approaches, including opportunities to use markets, to enhance the cost-effectiveness of, and to promote mitigation actions. Developing countries, especially those with low emitting economies should be provided incentives to continue to develop on a low emission pathway.

8. Scaled up, new and additional, predictable and adequate funding as well as improved access shall be provided to developing countries, in accordance with the relevant provisions of the Convention, to enable and support enhanced action on mitigation, including substantial finance to reduce emissions from deforestation and forest degradation (REDD-plus), adaptation, technology development and transfer and capacity-building, for enhanced implementation of the Convention. The collective commitment by developed countries is to provide new and additional resources, including forestry and investments through international institutions, approaching USD 30 billion for the period 2010 – 2012 with balanced allocation between adaptation and mitigation. Funding for adaptation will be prioritized for the most vulnerable developing countries, such as the least developed countries, small island developing States and Africa. In the context of meaningful mitigation actions and transparency on implementation, developed countries commit to a goal of mobilizing jointly USD 100 billion dollars a year by 2020 to address the needs of developing countries. This funding will come from a wide variety of sources, public and private, bilateral and multilateral, including alternative sources of finance. New multilateral funding for adaptation will be delivered through effective and efficient fund arrangements, with a governance structure providing for equal representation of developed and developing countries. A significant portion of such funding should flow through the Copenhagen Green Climate Fund.

9. To this end, a High Level Panel will be established under the guidance of and accountable to the Conference of the Parties to study the contribution of the potential sources of revenue, including alternative sources of finance, towards meeting this goal.

10. We decide that the Copenhagen Green Climate Fund shall be established as an operating entity of the financial mechanism of the Convention to support projects, programme, policies and other activities in developing countries related to mitigation including REDD-plus, adaptation, capacity-building, technology development and transfer.

11. In order to enhance action on development and transfer of technology we decide to establish a Technology Mechanism to accelerate technology development and transfer in support of action on adaptation and mitigation that will be guided by a country-driven approach and be based on national circumstances and priorities.

12. We call for an assessment of the implementation of this Accord to be completed by 2015, including in light of the Convention’s ultimate objective. This would include consideration of strengthening the long-term goal referencing various matters presented by the science, including in relation to temperature rises of 1.5 degrees Celsius.
Remarks by the President during press availability in Copenhagen

Bella Center
Copenhagen, Denmark

10:30 P.M. CET

THE PRESIDENT: Let me start with a statement and then I'll take a couple of questions.

Today we've made meaningful and unprecedented -- made a meaningful and unprecedented breakthrough here in Copenhagen. For the first time in history all major economies have come together to accept their responsibility to take action to confront the threat of climate change.

Let me first recount what our approach was throughout the year and coming into this conference. To begin with, we've reaffirmed America's commitment to transform our energy economy at home. We've made historic investments in renewable energy that have already put people back to work. We've raised our fuel efficiency standards. And we have renewed American leadership in international climate negotiations.

Most importantly, we remain committed to comprehensive legislation that will create millions of new American jobs, power new industry, and enhance our national security by reducing our dependence on foreign oil.

That effort at home serves as a foundation for our leadership around the world. Because of the actions we're taking we came here to Copenhagen with an ambitious target to reduce our emissions. We agreed to join an international effort to provide financing to help developing countries, particularly the poorest and most vulnerable, adapt to climate change. And we reaffirmed the necessity of listing our national actions and commitments in a transparent way.

These three components -- transparency, mitigation and finance -- form the basis of the common approach that the United States and our partners embraced here in Copenhagen. Throughout the day we worked with many countries to establish a new consensus around these three points, a consensus that will serve as a foundation for global action to confront the threat of climate change for years to come.

This success would have not been possible without the hard work of many countries and many leaders -- and I have to add that because of weather constraints in Washington I am leaving before the final vote, but we feel confident that we are moving in the direction of a significant accord.

In addition to our close allies who did so much to advance this effort, I worked throughout the day with Prime Minister Meles of Ethiopia, who was representing Africa, as well as Prime Minister Singh of India, Prime Minister Lula of Brazil, and President Zuma of South Africa, to achieve what I believe will be an important milestone.

Earlier this evening I had a meeting with the last four leaders I mentioned -- from China, India, Brazil, and South Africa. And that's where we agreed to list our national actions and commitments, to provide information on the implementation of these actions through national communications, with international consultations and analysis under clearly defined guidelines. We agreed to set a mitigation target to limit warming to no more than 2 degrees Celsius, and importantly, to take action to meet this objective consistent with science.

Taken together these actions will help us begin to meet our responsibilities to leave our children and our grandchildren a cleaner and safer planet.

Now, this progress did not come easily, and we know that this progress alone is not enough. Going forward, we're going to have to build on the momentum that we've established here in Copenhagen to ensure that international action to significantly reduce emissions is sustained and sufficient over time. We've come a long way, but we have much further to go.

To continue moving forward we must draw on the effort that allowed us to succeed here today -- engagement among nations that represent a baseline of mutual interest and mutual respect. Climate change threatens us all; therefore, we must bridge old divides and build new partnerships to meet this great challenge of our time. That's what we've begun to do here today.

For energy holds out not just the perils of a warming climate, but also the promise of a more peaceful and prosperous tomorrow. If America leads in developing clean energy, we will lead in growing our economy, in putting our people back to work, and in leaving a stronger and more secure country to our children.

And around the world, energy is an issue that demands our leadership. The time has come for us to get off the sidelines and to shape the future that we seek. That's why I came to Copenhagen today, and that's why I'm committed to working in common effort with countries from around the globe. That's also why I believe what we have achieved in Copenhagen will not be the end but rather the beginning, the beginning of a new era of international action.

So with that, let me just take a couple of questions, and I'm going to start with Jeff Mason.

Q Thank you, Mr. President. Can you give a little bit more detail about how the transparency issue will work, how countries will show or prove that they're doing what they say they'll do on emissions curbs? And can you speak also more specifically about cutting emissions? There's no mention of that in your statement or in what we've heard so far, specifically about the agreement.
THE PRESIDENT: Well, on the second question, the way this agreement is structured, each nation will be putting concrete commitments into an appendix to the document, and so will lay out very specifically what each country's intentions are.

Those commitments will then be subject to an international consultation and analysis, similar to, for example, what takes place when the WTO is examining progress or lack of progress that countries are making on various commitments. It will not be legally binding, but what it will do is allow for each country to show to the world what they're doing, and there will be a sense on the part of each country that we're in this together, and we'll know who is meeting and who's not meeting the mutual obligations that have been set forth.

With respect to the emissions targets that are going to be set, we know that they will not be by themselves sufficient to get to where we need to get by 2050. So that's why I say that this is going to be a first step. And there are going to be those who are going to -- who are going to look at the national commitments, tally them up and say, you know, the science dictates that even more needs to be done. The challenge here was that for a lot of countries, particularly those emerging countries that are still in different stages of development, this is going to be the first time in which even voluntarily they offered up mitigation targets. And I think that it was important to essentially get that shift in orientation moving, that's what I think will end up being most significant about this accord.

From the perspective of the United States, I've set forth goals that are reflected in legislation that came out of the House that are being discussed on a bipartisan basis in the Senate. And although we will not be legally bound by anything that took place here today, we will I think have reaffirmed our commitment to meet those targets. And we're going to meet those targets, as I said before, not simply because the science demands it, but also because I think it offers us enormous economic opportunity down the road.

Q And the first part of the question, about the transparency issue?

THE PRESIDENT: Well, as I said, there is a specific --

Q (Inaudible.)

THE PRESIDENT: Exactly. There is the annexing combined with a process where essentially they are presenting to the world -- subject to international consultation and then analysis -- exactly what are these steps. So if I make a claim that I'm reducing greenhouse gases because I've changed mileage standards on cars, there will be a process whereby people will be able to take a look and say, is that in fact in effect?

Jennifer Loven.

Q Thank you, sir. You've talked to, in your remarks earlier today, about other nations needing to accept less than perfect in their view. Can you talk about where you might have shifted the U.S. position to get to this point? And also, if this was so hard to get to, just what you have today, how do you feel confident about getting to a legally binding agreement in a year?

THE PRESIDENT: I think it is going to be very hard and it's going to take some time. Let me sort of provide the context for what I saw when I arrived. And I think it's important to be able to stand in the shoes of all the different parties involved here. In some ways the United States was coming with a somewhat clean slate, because we had been on the sidelines in many of these negotiations over several years. Essentially you have a situation where the Kyoto Protocol and some of the subsequent accords called on the developed countries who were signatories to engage in some significant mitigation actions and also to help developing countries. And there were very few, if any, obligations on the part of the developing countries.

Now, in some cases, for countries that are extremely poor, still agrarian and so forth, they're just not significant contributors to greenhouse gases. But what's happened obviously since 1992 is that you've got emerging countries like China and India and Brazil that have seen enormous economic growth and industrialization. So we know that moving forward it's going to be necessary if we're going to meet those targets for some changes to take place among those countries. It's not enough just for the developed countries to make changes. Those countries are going to have to make some changes, as well -- not of the same pace, not in the same way, but they're going to have to do something to assure that whatever carbon we're taking out of the environment is not just simply dumped in by other parties.

On the other hand, from the perspective of the developing countries like China and India, they're saying to themselves, per capita our carbon footprint remains very small, and we have hundreds of millions of people who don't even have electricity yet, so for us to get bound by a set of legal obligations could potentially curtail our ability to develop, and that's not fair.

So I think that you have a fundamental deadlock in perspectives that were brought to the discussions during the course of this week. And both sides have legitimate points.

My view was that if we could begin to acknowledge that the emerging countries are going to have some responsibilities, but that those responsibilities are not exactly the same as the developed countries, and if we could set up a financing mechanism to help those countries that are most vulnerable, like Bangladesh, then we would be at least starting to reorient ourselves in a way that allows us to be effective in the future.

But it is still going to require more work and more confidence-building and greater trust between emerging countries, the least developed countries, and the developed countries before I think you are going to see another legally binding treaty signed.

I actually think that it's necessary for us ultimately to get to such a treaty, and I am supportive of such efforts. But this is a classic example of a situation where if we just waited for that, then we would not make any progress. And in fact I think there might be such frustration and cynicism that rather than taking one step forward, we ended up taking two steps back. But I want to be very clear that ultimately this issue is going to be dictated by the science, and the science indicates that we're going to have to take more aggressive steps in the future. Our hope is that by investing in clean energy, in research, in development, in innovation, that in the same way that the Clean Air Act ended up spurring all kinds of innovations that solved the acid rain problem at a much cheaper and much more rapid pace than we expected, that by beginning to make progress and getting the wheels of innovation moving, that we are in fact going to be in a position to solve this problem.
But we're going to need technological breakthroughs to get to the goals that we're looking for. In the meantime, we've got to be able to take the steps that are in our grasp right now, like for example energy efficiency, something I emphasized last week.

All right. Helene Cooper. I'm sorry.

Q What about the compromise shift question?

THE PRESIDENT: I have to say that, quietly, we did some pretty good groundwork during the course of this year, so that our position was relatively clear. I think that the one principle that I brought to this is that whatever commitments we make, I want to be able to be sure that they're actually commitments that we can keep. So we tried to be modest in what we thought we could accomplish. I think there was interest on the part of some to, for example, increase our mitigation targets. Although when you look out in the years 2025 or 2030, our goals are actually entirely comparable with Europe's. On the front end they appear to be less, because frankly, they've had a head start over the last several years in doing things like energy efficiency that we care about.

What I said to the other people in the room is, is that I want to make sure that whatever it is that we promise we can actually deliver on, and that it would be unrealistic for us to think that we can turn on a dime and that suddenly a clean-energy economy is going to emerge overnight, given the fact that it's going to require significant effort. And companies and industries are going to be wanting to make changes -- we're already seeing those changes, but they haven't all borne fruit yet. And we want to make sure that we're not getting too far ahead of ourselves in terms of targets, even as I understand that the science compels us to move as rapidly as we can.

All right. Helene Cooper.

Q Thank you. I wanted to ask you about this listing of the -- in the appendix. Going forward do you think that's going to continue to be sufficient, or do you think verification is going to remain a source of friction between the U.S. and China? And also on cap and trade, are you able to -- were you able to assure the leaders here that you'll make that a legislative priority next year?

THE PRESIDENT: With respect to the appendix, these countries have set forth for the first time some very significant mitigation efforts, and I want to give them credit for that. I mean, if you look at a country like India, as I said, they've got hundreds of millions of people who don't have electricity, hundreds of millions of people who, by any standard, are still living in dire poverty. For them, even voluntarily to say, we are going to reduce carbon emissions relative to our current ways of doing business by X percent is an important step. And we applaud them for that.

The problem actually is not going to be verification in the sense that this international consultation and analysis mechanism will actually tell us a lot of what we need to know. And the truth is that we can actually monitor a lot of what takes place through satellite imagery and so forth. So I think we're going to have a pretty good sense of what countries are doing.

What I think that some people are going to legitimately ask is, well, if it's not legally binding what prevents us from, 10 years from now, looking and saying, you know, everybody fell short of these goals and there's no consequences to it? My response is that, A, that's why I think we should still drive towards something that is more binding than it is. But that was not achievable at this conference.

And the second point that I'd make is that Kyoto was legally binding and everybody still fell short anyway. And so I think that it's important for us, instead of setting up a bunch of goals that end up just being words on a page and are not met, that we get moving -- everybody is taking as aggressive a set of actions as they can; that there is a sense of mutual obligation and information sharing so that people can see who's serious and who's not; that we strive for more binding agreements over time; and that we just keep moving forward. That's been the main goal that I tried to pursue today.

And I think that as people step back, I guarantee you there are going to be a lot of people who immediately say, the science says you got to do X, Y, Z; in the absence of some sort of legal enforcement, it's not going to happen. Well, we don't have international government, and even treaties, as we saw in Kyoto, are only as strong as the countries' commitments to participate. Because of the differing views between developing countries and developed countries, in terms of future obligations, the most important thing I think we can do at this point -- and that we began to accomplish but are not finished with -- is to build some trust between the developing and the developed countries to break down some of the logjams that have to do with people looking backwards and saying, well, Kyoto said this, or Bali said that, or you guys need to do something but we don't need to do something; getting out of that mindset and moving towards a position where everybody recognizes we all have to move together. If we start from that position, then I think we're going to be able to make progress in the future.

But this is going to be hard. This is hard within countries; it's going to be even harder between countries. And one of the things that I've felt very strongly about during the course of this year is that hard stuff requires not paralysis, but it requires going ahead and making the best of the situation that you're in at this point, and then continually trying to improve and make progress from there.

Okay, thank you very much everybody. We'll see some of you on the plane.

Q Mr. President, who will sign the agreement -- since you're leaving, who here has the power to sign it?

THE PRESIDENT: We've got our negotiators who are here. I'm not going to be the only leader who I think leaves before it's finally presented, but they are empowered to sign off -- given at this point that most of the text has been completely worked out.

Q Does it require signing, is it that kind of agreement?

THE PRESIDENT: You know, it raises an interesting question as to whether technically there's actually a signature -- since, as I said, it's not a legally binding agreement, I don't know what the protocols are. But I do think that this is a commitment that we, as the United States, are making and that we think is very important.

All right. Thanks, guys.
LA Times Editorial

**For U.S., leadership role in climate talks should begin in Washington**

*The U.S. has to set a good example if it wants the rest of the world to follow suit with concrete action to address global warming.*

December 22, 2009 | 5:19 p.m.

We've been reserving judgment on last week's United Nations climate summit in Copenhagen because we're still trying to figure out what, exactly, happened. An acrimonious two-week negotiations marathon ended Saturday with a raucous final session in which delegates "noted" (but didn't exactly approve) an agreement seemingly thrown together at the last minute by representatives of the United States and four other big greenhouse-gas emitters. The pact, if you can call it that, has no binding targets, monitoring mechanisms or legal force.

Though some diplomats and environmentalists are positioning the deal as an important step forward, others say it is a failure. Meanwhile, world leaders are pointing fingers at one another for not coming up with something more substantive. Venezuelan President Hugo Chavez attracted applause by blaming global warming (along with AIDS, poverty and murder) on capitalist countries, while British Prime Minister Gordon Brown on Monday denounced a handful of countries for holding the talks "to ransom."

To observers of past treaty negotiations, none of this is particularly surprising. The World Trade Organization has been struggling for eight years to complete its Doha round of talks aimed at lowering barriers to agricultural trade, which would have clear economic bonuses for every country. Yet if entrenched political interests can prevent even such a clearly beneficial deal from going forward, think what they can do to a treaty that will impose significant costs on many countries to avert a crisis whose future impacts, while solidly researched, remain theoretical. If aliens from outer space had commenced an invasion of Earth last summer, the U.N. would probably still be arguing about how much money industrialized nations should be obliged to pay for repairing photon torpedo damage in the developing world rather than organizing a response.

We haven't given up hope for a worldwide climate accord. Such a deal is important, and someday it should be achievable. But Washington needs to get its own house in order before it can play a leadership role in global climate talks, or expect them to bear fruit. Right now, we're less concerned about the lack of action in Copenhagen than about the lack of action on a climate bill by the U.S. Senate. Granted, the world has to contend only with demagogues like Chavez, who at least grasps the clear evidence that climate change is happening; we've got to deal with the likes of Republican Sen. James M. Inhofe of Oklahoma, who considers it a hoax. Nonetheless, the U.S. bears an overwhelming burden of responsibility for the problem, and the world will follow only if it first sets a good example.

OP-ED COLUMNIST  Off to the Races

*By THOMAS L. FRIEDMAN*

*Published: December 19, 2009*

**Copenhagen**

Thomas L. Friedman

I've long believed there are two basic strategies for dealing with climate change — the “Earth Day” strategy and the “Earth Race” strategy. This Copenhagen climate summit was based on the Earth Day strategy. It was not very impressive. This conference produced a series of limited, conditional, messy compromises, which it is not at all clear will get us any closer to mitigating climate change at the speed and scale we need.

Indeed, anyone who watched the chaotic way this conference was “organized,” and the bickering by delegates with which it finished, has to ask whether this 17-year U.N. process to build a global framework to roll back global warming is broken: too many countries — 193 — and too many moving parts. I leave here feeling more strongly than ever that America needs to focus on its own Earth Race strategy instead. Let me explain.

The Earth Day strategy said that the biggest threat to mankind is climate change, and we as a global community have to hold hands and attack this problem with a collective global mechanism for codifying and verifying everyone’s carbon-dioxide emissions and reductions and to transfer billions of dollars in clean technologies to developing countries to help them take part. But as President Luiz Inácio Lula da Silva of Brazil told this conference, this Earth Day framework only works “if countries take responsibility to meet their targets” and if the rich nations really help the poor ones buy clean power sources.

That was never going to happen at scale in the present global economic climate. The only way it might happen is if we had “a perfect storm” — a storm big enough to finally end the global warming debate but not so big that it ended the world. Absent such a storm that literally parts the Red Sea again and drives home to all the doubters that catastrophic climate change is a clear and present danger, the domestic pressures in every country to avoid legally binding and verifiable carbon reductions will remain...
very powerful.

Does that mean this whole Earth Day strategy is a waste? No. The scientific understanding about the climate that this U.N. process has generated and the general spur to action it provides is valuable. And the mechanism this conference put in place to enable developed countries and companies to offset their emissions by funding protection of tropical rain forests, if it works, would be hugely valuable. Still, I am an Earth Race guy. I believe that averting catastrophic climate change is a huge scale issue. The only engine big enough to impact Mother Nature is Father Greed: the Market. Only a market, shaped by regulations and incentives to stimulate massive innovation in clean, emission-free power sources can make a dent in global warming. And no market can do that better than America’s.

Therefore, the goal of Earth Racers is to focus on getting the U.S. Senate to pass an energy bill, with a long-term price on carbon that will really stimulate America to become the world leader in clean-tech. If we lead by example, more people will follow us by emulation than by compulsion of some U.N. treaty.

In the cold war, we had the space race: who could be the first to put a man on the moon. Only two countries competed, and there could be only one winner. Today, we need the Earth Race: who can be the first to invent the most clean technologies so men and women can live safely here on Earth.

Maybe the best thing President Obama could have done here in Copenhagen was to make clear that America intends to win that race. All he needed to do in his speech was to look China’s prime minister in the eye and say: “I am going to get our Senate to pass an energy bill with a price on carbon so we can clean your clock in clean-tech. This is my moon shot. Game on.”

Because once we get America racing China, China racing Europe, Europe racing Japan, Japan racing Brazil, we can quickly move down the innovation-manufacturing curve and shrink the cost of electric cars, batteries, solar and wind so these are no longer luxury products for the wealthy nations but commodity items the third world can use and even produce.

If you start the conversation with “climate” you might get half of America to sign up for action. If you start the conversation with giving birth to a “whole new industry” — one that will make us more energy independent, prosperous, secure, innovative, respected and able to out-green China in the next great global industry — you get the country.

For good reason: Even if the world never warms another degree, population is projected to rise from 6.7 billion to 9 billion between now and 2050, and more and more of those people will want to live like Americans. In this world, demand for clean power and energy efficient cars and buildings will go through the roof.

An Earth Race led by America — built on markets, economic competition, national self-interest and strategic advantage — is a much more self-sustaining way to reduce carbon emissions than a festival of voluntary, nonbinding commitments at a U.N. conference. Let the Earth Race begin.


Climate summit hopes less is more

The Copenhagen talks’ mandate is muddled, but some wonder whether markets won't save the day.

By Jim Tankersley
December 20, 2009

Reporting from Copenhagen

When two weeks of climate negotiations finally wound to an overtime finish in Copenhagen, the goal of a new binding treaty to combat global warming still looked elusively far away. And, even for climate activists, the question was: "Is that so bad?"

The summit officially ended Saturday with a gentlemen's agreement among the world's largest economies to take steps to curb greenhouse gas emissions, but no formal consensus on the part of the 193 nations present -- and no prescription for what comes next in the global negotiating process that is nearly 20 years old.

It was a muddled mandate from a conference originally intended to produce a successor to the 1997 Kyoto Protocol. And it left the impression that any success in humankind's efforts to avert the worst effects of climate change may be less an outcome of formal bargaining than of domestic politics, scientific innovation and, above all, the power of the emerging global market in low-emitting sources of energy.

The most celebrated aspects of the so-called Copenhagen Accord, at least initially, were a batch of provisions that will boost the likelihood of major emitters acting on their own to reduce carbon pollution and will send clear signals to clean-energy investors and inventors.

Nations joining the accord will, by Jan. 31, list their pledges for long-term emissions control. Developed nations will declare cuts, fast-developing nations will sign up for reductions as a share of their overall economy.

Other key provisions included forest protection, transparency on levels of emissions and a massive financial aid package for
developing nations, along with the most formalized commitments yet that economic powerhouses China, India and the United States will take steps to move away from fossil fuels.

Each of those decisions affects a market. For example, winning Chinese and Indian commitments to emission limits, and verifying that those limits are put in place, gives confidence to American manufacturers who worried that domestic emission reductions would boost their energy prices and undercut competitiveness.

The forestry provision helps solidify a chunk of the carbon market, where companies can invest in protecting trees to offset industrial emissions. The financial aid fund, ramping up to $100 billion annually by 2020, will help developing countries adapt to climate change and make the transition to low-emission fuels.

Those decisions taken together could help unlock an investment flow that will help reduce emissions around the world by spurring cheaper, better, more widely available low-carbon energy sources.

"A market is an engine," said Peter Goldmark, who directs the climate and air program for the Environmental Defense Fund. "A treaty -- or, more broadly, public policy, decisions and rules made in the public space -- [is] the rails."

The climate accord's limitations, meanwhile, were clear to advocates and critics alike. It is not legally binding. It does not cut emissions aggressively enough to avoid a level of warming that scientists warn could prove catastrophic. It includes no measure to enforce nations' emissions pledges, other than international peer pressure, and no deadline to turn the accord into a treaty to be ratified.

President Obama acknowledged each of those points when he announced the deal Friday evening, after negotiating for hours to pull the talks from the brink of collapse. He said he wanted to achieve a legally binding agreement but suggested that it would be out of reach until major emitters build trust and band together informally to reduce emissions.

"Because of the differing views between developing countries and developed countries," Obama said, "in terms of future obligations, the most important thing I think we can do at this point -- and that we began to accomplish but are not finished with -- is to build some trust between the developing and the developed countries to break down some of the logjams."

The president predicted that energy innovation, driven by economic opportunity, would spur far greater reductions than what nations were prepared to commit themselves to in the accord.

He also downplayed the necessity of treaty enforcement, saying, "There are going to be a lot of people who immediately say, the science says you got to do X, Y, Z; in the absence of some sort of legal enforcement, it's not going to happen. Well, we don't have international government, and even treaties, as we saw in Kyoto, are only as strong as the countries' commitments to participate."

The countries negotiating in Copenhagen were bedeviled from the start by matters of process. Officials shut down sessions to quell objections from poor countries, which were angry about the level of emission reductions being offered by wealthy nations.

Major emitters such as the U.S., China and Europe huddled in unofficial side talks -- only to rouse accusations of dealing in secret and silencing the voices of nations most vulnerable to climate change.

On Saturday morning, a few nations, including Venezuela, Cuba and Nicaragua, blocked the conference from adopting the Copenhagen Accord, which stemmed from an eleventh-hour deal cut Friday evening between Obama and leaders of four fast-growing nations. Later, the agreement was blessed by a group of countries that the United Nations said included "the biggest and the richest, and the smallest and most vulnerable."

The procedural frustrations of the conference boiled over early Saturday during a negotiating marathon that featured surreal twists of rhetoric, including a representative from the genocide-racked nation of Sudan comparing the Copenhagen Accord to the Holocaust -- a move that appeared to galvanize smaller nations to speak up for the agreement.

When the conference ended with an acknowledged, but not approved, accord, even climate policy veterans were puzzled.

The World Wildlife Fund's Keya Chatterjee compared the summit's aftermath to the confusion following the 2000 U.S. presidential election, when lawyers descended on Florida for recounts and the Supreme Court eventually intervened.

"It's going to take a while to figure out what just happened" to the negotiating process, she said. "I follow this process pretty closely, and I don't really know what happened. I don't think anyone at this point knows what happened."

Even Obama, at his triumphant news conference, confessed that he wasn't sure whether the U.S. would physically sign the agreement.
Conference leaders praised the accord warily, even as they warned of its faults.

"We now have a package to work with and begin immediate action," Yvo de Boer, the U.N.'s top climate official, said in a news release. "However, we need to be clear that it is a letter of intent and is not precise about what needs to be done in legal terms. So the challenge is now to turn what we have agreed politically in Copenhagen into something real, measurable and verifiable."

In closing, the news release noted that negotiators across the globe will meet in Germany next spring and again in Mexico City for a major conference near the end of 2010.

When, presumably, they will do it all over again.

jtankersley@latimes.com

BBC NEWS
Asian giants hail Copenhagen deal
Asian giants China and Indonesia have hailed the Copenhagen UN climate summit outcome, despite its cool reception from aid agencies and campaigners.
Beijing's foreign minister said it was a new beginning, and Indonesia's leader said he was pleased with the result.
Earlier, US President Barack Obama defended the accord he helped broker with China and other main powers.
The non-binding pact, called the Copenhagen Accord, was not adopted by consensus at the summit in Denmark.
Instead, after two weeks of frantic negotiations, the 193-nation conference ended on Saturday with delegates merely taking note of the deal.

BBC environment correspondent Richard Black says the accord looks unlikely to contain temperature rises to within the 2C (3.6F) threshold that UN scientists say is needed to avert serious climate change.

"Copenhagen is not a destination but a new beginning" Yang Jiechi China's Foreign Minister
It includes a recognition to limit temperature rises to less than 2C and promises to deliver $30bn (£18.5bn) of aid for developing nations over the next three years.
The agreement outlines a goal of providing $100bn a year by 2020 to help poor countries cope with the impacts of climate change.
It also includes a method for verifying industrialised nations' reduction of emissions. The US had insisted that China dropped its resistance to this measure.

'Make it binding'
China's Foreign Minister, Yang Jiechi, praised the summit in a statement which said: "Developing and developed countries are very different in their historical emissions responsibilities and current emissions levels, and in their basic national characteristics and development stages."
"Therefore, they should shoulder different responsibilities and obligations in fighting climate change."
"The Copenhagen conference is not a destination but a new beginning," he added.

His upbeat note was echoed by Indonesia, ranked the world's third-largest polluter after the US and China, if the effects of deforestation are taken into account.
President Susilo Bambang Yudhoyono said in a statement on his website: "Indonesia is pleased, as [we have] taken a wholehearted stance to save our Earth, to save the children in our country," reports AFP news agency.

Environmental campaigners and aid agencies have branded the deal a toothless failure.
But the head of the Nobel-winning UN panel of climate scientists said on Sunday the outcome of the summit was a start, though he urged countries to make it binding.

Hopes for Mexico
Rajendra Pachauri, chairman of the Intergovernmental Panel on Climate Change (IPCC), told India's NDTV news channel: "We will have to build on it.
"We will have to make sure it moves quickly towards the status of a legally binding agreement and therefore I think the task for the global community is cut out."

Germany will host the next climate change conference in six months in Bonn, to follow up the work of the Copenhagen summit.
The final outcome is supposed to be sealed at a conference in Mexico City at the end of 2010.
US President Barack Obama defended the deal after arriving back in Washington on Saturday, describing it as "the foundation for international action in the years to come".

The Copenhagen Accord is based on a proposal tabled on Friday by a US-led group of five nations - including China, India, Brazil and South Africa.
It was lambasted by some delegations when put to a full session of the UN Framework Convention on Climate Change at the summit.
A few developing countries said it was a cosy backroom deal between rich nations that violated UN democracy and would condemn the world to disastrous climate change.
Before the summit, China for the first time offered to limit its greenhouse gas output.
It pledged to reduce its carbon intensity - use of fossil fuels per unit of economic output - by up to 45%, although critics said this would not necessarily lead to any overall cut in its emissions.

Story from BBC NEWS:
GARY DUFFY, SAO PAULO, 0057 GMT

Even as the first news was emerging that some kind of "deal" had been reached in Copenhagen, the Brazilian media were reporting that President Luiz Inacio Lula da Silva was on his way home. He had earlier voiced his frustration at what had been achieved in the negotiations, while speaking of his belief that "miracles" were possible. It seems the president didn't think on this occasion that it was worth waiting around to see if one would happen. Not surprisingly the tone of remarks coming from Brazilian diplomats was very flat. "Not what we expected," said one. Still the Copenhagen summit is being characterised as "disappointing" but "not a failure". The view here is that there is still a big job to be done and that, if hopes were not realised this time round, that is no reason to give up. In advance of Copenhagen, Brazil revealed its voluntary goal of reducing emissions by at least 36% and its intention to cut deforestation by 80%.

However, it also made clear its view that real progress on tackling climate change required a united international front, something which has still to be achieved.

IMTIAZ TYAB, WASHINGTON, 2358 GMT (FRIDAY)

"Dealmaker-in-chief" is how one US-based political website described President Barack Obama after he managed to secure an agreement with China, India, Brazil and South Africa after marathon negotiations. But it's the lack of substance to the non-binding political accord which has infuriated environmentalists and emboldened critics in the US who consider the notion of man-made global warming as a "Hollywood hoax".

White House officials have conceded the deal reached by the president is a modest achievement, but they insist it is an achievement nonetheless. Domestically, climate change legislation is a long way off. It has stalled for months in the US Senate. Still some Democrats are hopeful. Senator John Kerry, co-author of the US Senate climate bill, has called President Obama, Chinese Premier Wen Jiabao, Indian Prime Minister Manmohan Singh and South African President Jacob Zuma the "four horsemen of a climate change solution".

He added that the agreement between the leaders would be a handy tool that would ensure any domestic legislation would "cross the finish line".

Story from BBC NEWS:
http://news.bbc.co.uk/go/pr/fr/-/hi/science/nature/8422064.stm

Published: 2009/12/19 10:45:35 GMT

BBC NEWS

Copenhagen deal: At a glance

A US-led initiative called the Copenhagen Accord has formed the centre-piece of a deal at UN climate talks in Copenhagen, despite some countries' opposition. Below is an explanation of the main points in the agreement.

LEGAL STATUS

The Accord, reached between the US, China, India, Brazil and South Africa, contains no reference to a legally binding agreement, as some developing countries and climate activists wanted. Neither is there a deadline for transforming it into a binding deal, though UN Secretary General Ban Ki-moon said it needed to be turned into a legally binding treaty next year.

The accord was merely "recognised" by the 193 nations at the Copenhagen summit, rather than approved, which would have required unanimous support. It is not clear whether it is a formal UN deal. TEMPERATURE RISE

The text recognises the need to limit global temperatures rising no more than 2C (3.6F) above pre-industrial levels. The language in the text shows that 2C is not a formal target, just that the group "recognises the scientific view that" the temperature increase should be held below this figure.

However, the accord does not identify a year by which carbon emissions should peak, a position resisted by some richer developing nations.

Countries are asked to spell out by 1 February next year their pledges for curbing carbon emissions by 2020. The deal does not spell out penalties for any country that fails to meet its promise.

FINANCIAL AID

The deal promises to deliver $30bn (£18.5bn) of aid for developing nations over the next three years. It outlines a goal of providing $100bn a year by 2020 to help poor countries cope with the impacts of climate change. The accord says the rich countries will jointly mobilise the $100bn, drawing on a variety of sources: "public and private, bilateral and multilateral, including alternative sources of finance."

A green climate fund will also be established under the deal. It will support projects in developing countries related to mitigation, adaptation, "capacity building" and technology transfer.

EMISSIONS TRANSPARENCY
The pledges of rich countries will come under "rigorous, robust and transparent" scrutiny under the UN Framework Convention on Climate Change (UNFCCC).

In the accord, developing countries will submit national reports on their emissions pledges under a method "that will ensure that national sovereignty is respected."

Pledges on climate mitigation measures seeking international support will be recorded in a registry.

REVIEW OF PROGRESS

The implementation of the Copenhagen Accord will be reviewed by 2015. This will take place about a year-and-a-half after the next scientific assessment of the global climate by the Intergovernmental Panel on Climate Change (IPCC).

However, if, in 2015, delegates wanted to adopt a new, lower target on global average temperature, such as 1.5C rather than 2C, it would be too late.

Story from BBC NEWS:

Published: 2009/12/19 12:43:02 GMT

BBC NEWS

Copenhagen deal reaction in quotes

US President Barack Obama has reached what he called a "meaningful" deal with China, India, Brazil and South Africa on climate change.

But the agreement struck on the last day of the Copenhagen conference does not set specific emission reductions and is not legally binding.

Below are reactions from key figures at the conference and non-governmental organisations.

DEVELOPED COUNTRIES

BARACK OBAMA, US PRESIDENT
We're going to have to build on the momentum that we've established here in Copenhagen to ensure that international action to significantly reduce emissions is sustained and sufficient over time. We've come a long way but we have much further to go.

GORDON BROWN, UK PRIME MINISTER
We have made a start. I believe that what we need to follow up on quickly is ensuring a legally binding outcome.

JOSE MANUEL BARROSO, EU COMMISSION PRESIDENT
I will not hide my disappointment regarding the non-binding nature of the agreement here. In that respect the document falls far short of our expectations.

NICOLAS SARKOZY, FRENCH PRESIDENT
The text we have is not perfect... If we had no deal, that would mean that two countries as important as India and China would be freed from any type of contract... the United States, which is not in Kyoto, would be free of any type of contract. That's why a contract is absolutely vital.

DEVELOPING NATIONS

XIE ZHENHUA, HEAD OF CHINA'S DELEGATION
The meeting has had a positive result, everyone should be happy. After negotiations both sides have managed to preserve their bottom line. For the Chinese this was our sovereignty and our national interest.

SERGIO SERRA, BRAZIL'S CLIMATE CHANGE AMBASSADOR
It's very disappointing, I would say, but it is not a failure... if we agree to meet again and deal with the issues that are still pending. We have a big job ahead to avoid climate change through effective emissions reduction targets and this was not done here.

LUMUMBA STANISLAUS DI-APING, HEAD OF G-77 GROUP
[The draft text] asks Africa to sign a suicide pact, an incineration pact in order to maintain the economic dominance of a few countries. It is a solution based on values, the very same values in our opinion that funnelled six million people in Europe into furnaces.

IAN FRY, TUVALU'S LEAD NEGOTIATOR
It looks like we are being offered 30 pieces of silver to betray our people and our future.

MOHAMED NASHEED, MALDIVES' PRESIDENT
Anything above 1.5 degrees, the Maldives and many small islands and low-lying islands would vanish. It is for this reason that we tried very hard during the course of the last two days to have 1.5 degrees in the document. I am so sorry that this was blatantly obstructed by big-emitting countries.

CLAUDIA SALERNO CALDERA, VENEZUELAN DELEGATE
I ask whether - under the eye of the UN secretary general - you are going to endorse this coup d'etat against the authority of the United Nations.

DESSIMA WILLIAMS, ASSOCIATION OF SMALL ISLAND STATES
We lost our vigorous commitment from other parties to [a temperature target of] 1.5C. We were not able to secure a legally binding outcome. We were not able to secure mid-term targets, a peaking year and many other factors that AOSIS believes is crucial to our survival.

NON-GOVERNMENTAL GROUPS

NNIMMO BASSEY, FRIENDS OF THE EARTH INTERNATIONAL
Copenhagen has been an abject failure. Justice has not been done. By delaying action, rich countries have condemned millions of the world's poorest people to hunger, suffering and loss of life as climate change accelerates. The blame for this disastrous outcome is squarely on the developed nations.

JOHN SAUVEN, GREENPEACE UK
The city of Copenhagen is a crime scene tonight, with the guilty men and women fleeing to the airport. There are no targets for carbon cuts and no agreement on a legally binding treaty. It seems there are too few politicians in this world capable of looking beyond the horizon of their own narrow self-interest, let alone caring much for the millions of people who are facing down the threat of climate change.

JOHN ASHE, CHAIR OF KYOTO PROTOCOL TALKS
Given where we started and the expectations for this conference, anything less than a legally binding and agreed outcome falls far short of the mark. On the other hand... perhaps the bar was set too high and the fact that there's now a deal... perhaps gives us something to hang our hat on.

Story from BBC NEWS:

Published: 2009/12/19 11:44:43 GMT

BBC NEWS
World media reacts to climate deal

Media throughout the world have reacted to the deal negotiated at the UN climate conference in Copenhagen.

Britain's Guardian newspaper said the summit had failed to lay any foundations for a new carbon order.
"The progress on financial assistance over the fortnight is welcome, but with much of the money earmarked for climate adaptation, the global community is left resembling an alcoholic who has decided to save up for a liver transplant rather than give up drink," it said.
The Times said that despite delays, protests and chaos, the summit had taken some positive steps.
"Copenhagen has proved a milestone, with much success," its editorial said.
For the Los Angeles Times, President Barack Obama had put pragmatism ahead of theory to protect America's self-interest.
But others were less than supportive.
The New York Times said the accord did not meet even the modest expectations set by leaders.
"But it was an equivocal agreement that was, to many, a disappointing conclusion to a two-year process that had the goal of producing a comprehensive and enforceable action plan for addressing dangerous changes to the global climate.
"The messy compromise mirrored the chaotic nature of the conference, which virtually all participants said had been badly organized and run," the New York Times said.
In the Huffington Post, blogger Johann Hari said life-saving ideas suggested by poor countries had been discarded by rich ones.
"They didn't seal the deal; they sealed the coffin for the world's low-lying islands, its glaciers, its North Pole, and millions of lives," he wrote.
In France, Liberation newspaper lamented the speed and commitment to saving the planet compared with saving the global financial system.
"We must make the bitter observation: when it comes to rescuing the banking system, the dialogue has been far more effective and determined.
"It is clearly easier to save finance than it is to save the planet," the paper wrote.
Italy's La Stampa newspaper called it "a facade of an accord" an "entente signed at the last minute at the end of a frantic day and aimed at saving face."
In Denmark, where the UN summit was held over the past two weeks, the conference had shown China's emerging power.
The Politiken newspaper said: "The chaotic climax to the meeting has shown that Washington can no longer determine things and that there is no more global political consensus."

BBC NEWS
Copenhagen accord: key issues
The BBC's environment correspondent Richard Black analyses key elements of the US-backed climate deal agreed in Copenhagen. CLIMATE
One widely-accepted definition of "dangerous climate change" is that it begins at a global temperature rise of 2C.
The Intergovernmental Panel on Climate Change (IPCC) recommends that to have a good chance of avoiding this definition of "dangerous climate change", developed countries cut emissions by at least 25% from 1990 levels by 2020, and that global emissions must peak and begin to decline by 2020 at the latest.
This agreement "recognises" the 2C goal but does not endorse it. There is no peak year, and no collective target for cutting emissions. The EU considers this package so weak that it will maintain its lower pledge of keeping its emissions 20% below 1990 levels by 2020, rather than going to its alternative higher figure of 30%. Other countries such as Japan and Australia are also likely to stick with their minimum levels of ambition. This puts the globe more on track to a 3C rather than a 2C rise.

CLEAN TECHNOLOGY
Sources close to the green business community say the deal is unlikely to stimulate investment in low-carbon technologies. That requires either a functioning carbon market with a high enough carbon price to persuade companies to invest, or a state-directed system of financial levers. Without near-term ramping-up of research, development and deployment of low-carbon technologies, the date by which emissions peak moves further into the distance, if it happens at all.

GEOPOLITICS
The essential partners in this deal were the US and China. India, Brazil and South Africa played supporting roles - creating the kind of deal that suits the emerging major economies. The EU did a lot of the spadework on the day before leaders arrived. But reportedly, it was not informed that Mr Obama and Mr Wen had done a deal and were preparing to announce it. The EU could have prevented this from becoming adopted as a global deal by refusing to endorse it. As it does not meet the minimum standards for an acceptable package that several European countries had put forward, they had a politically defensible reason for turning it down. If they had, many if not all of the smaller developing countries would probably have followed them. In the end, the EU decided not to stand up against the US and China, which emerge as the winners of this political game. Ethiopia's President Meles Zenawi emerged as Africa's political victor - the chosen champion of France and the UK as they sought African support for their finance proposal. He delivered the African Union.

BARACK OBAMA
An immaculately choreographed presentation sequence by the White House saw US journalists only invited into crucial meetings and given briefings ahead of others. Mr Obama announced the deal live on air to a US audience before most governments had even seen the document involved, ensuring he set the editorial agenda, at least in the US. Exclusion of NGOs and press from the final day's politicking ensured scrutiny of draft agreements was always a beat behind the action. Senators opposed to cap-and-trade legislation may call the president over less than firm language on monitoring and verification of developing countries' emissions.

INTERNATIONAL ENVIRONMENTAL GOVERNANCE
The concept that global environmental issues can and should be tackled on a co-operative international basis has taken a massive, massive blow. The UN climate convention is the flagship agreement, and its outcomes are supposed to be negotiated. This deal was presented to the greater body of countries on a take-it-or-leave-it basis by small group of powerful players. It is now debatable whether the UN climate convention has a meaningful future, or whether powerful countries will just decide by themselves, or in a small group, by how much they are prepared to cut emissions. That makes optional the established schemes for helping the poorest countries towards a clean energy and climate-protected future. The implications for other global treaties that are not meeting their goals, such as the UN biodiversity convention, can only be guessed at.

Story from BBC NEWS:

Published: 2009/12/19 10:37:42 GMT

The Copenhagen climate conference COP15 resulted in a document called the Copenhagen Accord. It was hammered out by a small group of countries - including the world's two biggest greenhouse gas polluters, China and the US. The conference as a whole did not adopt the accord, but voted to "take note" of it.

Was the summit a success?
This depends on your point of view.
On the positive side, the Copenhagen Accord, for the first time, unites the US, China and other major developing countries in an effort to curb global greenhouse gas emissions. The Kyoto Protocol did not achieve this - it imposed no obligations on developing countries...
to restrain the growth of their emissions, and the US never acceded to it. The accord also says developed countries will aim to mobilise $100bn per year by 2020, to address the needs of developing countries.

On the other hand, the summit did not result in a legally binding deal or any commitment to reach one in future. The accord calls on countries to state what they will do to curb greenhouse gas emissions, but these will not be legally binding commitments. Furthermore, there is no global target for emissions reductions by 2050 and the accord is vague as to how its goals - such as the $100bn of funds annually for developing countries - will be achieved.

**What are the key points of the Copenhagen Accord?**

- A commitment "to reduce global emissions so as to hold the increase in global temperature below 2C" and to achieve "the peaking of global and national emissions as soon as possible"
- Developed countries must make commitments to reduce greenhouse gas emissions, and developing countries must report their plans to curb greenhouse gas emissions to the UN by 31 January 2010
- New and additional resources "approaching $30bn" will be channelled to poorer nations over the period 2010-12, with an annual sum of $100bn envisaged by 2020
- A Copenhagen Green Climate Fund will be established under the UN convention on climate change, to direct some of this money to climate-related projects in developing countries
- Projects to reduce greenhouse gas emissions in developing countries will be subject to international monitoring if they are internationally funded
- Programmes to provide developing countries with financial incentives to preserve forests - [REDD and REDD-plus](#) - will be established immediately
- Implementation of the accord will be reviewed in 2015 and an assessment will be made of whether the goal of keeping global temperature rise within 2C needs to be strengthened to 1.5C

**Which countries backed the accord?**

The essential points of the deal were brokered by US President Barack Obama with representatives of China, India, Brazil and South Africa. Mr Obama also consulted with the leaders of France, Germany and the UK. Most countries at the conference gave it their support, but some countries were resolutely opposed, including Venezuela, Bolivia, Ecuador and Cuba.

**Why did the Copenhagen summit take place at all?**

The majority of the world's governments believe that climate change poses a threat to human society and to the natural world. Successive scientific reports, notably those from the [Intergovernmental Panel on Climate Change (IPCC)](https://www.ipcc.ch/), have come to ever firmer conclusions about humankind's influence on the modern-day climate, and about the impacts of rising temperatures.

In 2007, at the [UN climate talks held in Bali](https://unfccc.int), governments agreed to start work on a new global agreement. The Copenhagen talks marked the end of that two-year period.

**Why is a new global agreement needed?**


But neither of these agreements can curb the growth in greenhouse gas emissions sufficiently to avoid the climate impacts projected by the IPCC.

In particular, the Kyoto Protocol's targets for reducing emissions apply only to a small set of countries and expire in 2012. Negotiations therefore began on new treaty that was bigger, bolder, wider-ranging and more sophisticated than the Kyoto agreement, and the plan was that these would conclude in Copenhagen.

**Why is climate change happening - and is it the same as global warming?**

The Earth's climate has always changed naturally over time. For example, variability in our planet's orbit alters its distance from the Sun, which has given rise to major Ice Ages and intervening warmer periods.

According to the [last IPCC report](https://www.ipcc.ch/), it is more than 90% probable that humankind is largely responsible for modern-day climate change. The principal cause is burning fossil fuels - coal, oil and gas. This produces carbon dioxide (CO2), which - added to the CO2 present naturally in the Earth's atmosphere - acts as a kind of blanket, trapping more of the Sun's energy and warming the Earth's surface.

Deforestation and processes that release other greenhouse gases such as methane also contribute. Although the initial impact is a rise in average temperatures around the world - "global warming" - this also produces changes in rainfall patterns, rising sea levels, changes to the difference in temperatures between night and day, and so on.

This more complex set of disturbances has acquired the label "climate change" - sometimes more accurately called "anthropogenic (human-made) climate change".

**Will the Copenhagen deal solve climate change?**

The global average temperature has already risen by about 0.7C since pre-industrial times. In some parts of the world this is already having impacts - and a Copenhagen deal could not stop those impacts, although it could provide funding to help deal with some of the consequences.

Greenhouse gases such as CO2 stay in the atmosphere for decades; and concentrations are already high enough that further warming is almost inevitable.

Many analyses suggest an average rise of 1.5C since pre-industrial times is guaranteed.
Tough action to reduce emissions might keep the temperature rise under 2C; but given uncertainties in how the atmosphere and oceans respond to rising concentrations of greenhouse gases, it might not. This is why developing countries put such an emphasis on adaptation, which they argue is necessary already. IPCC figures suggest that to have a reasonable chance of avoiding 2C, global emissions would need to peak and start to decline within about 15-20 years. Currently, the cuts pledged by industrialised nations are not enough to halt the overall global rise in emissions. Furthermore, countries that went in to the Copenhagen conference prepared to offer bigger cuts in emissions if other countries took tough action, appear to be sticking with pledges to cut emissions at the lower end of their range.

BBC NEWS
CLIMATE CHANGE GLOSSARY
Glossary in full

BBC NEWS
Why did Copenhagen fail to deliver a climate deal?
About 45,000 travelled to the UN climate summit in Copenhagen - the vast majority convinced of the need for a new global agreement on climate change.
So why did the summit end without one, just an acknowledgement of a deal struck by five nations, led by the US. And why did delegates leave the Danish capital without agreement that something significantly stronger should emerge next year? Our environment correspondent Richard Black looks at eight reasons that might have played a part.
1. KEY GOVERNMENTS DO NOT WANT A GLOBAL DEAL
Until the end of this summit, it appeared that all governments wanted to keep the keys to combating climate change within the UN climate convention.
Implicit in the convention, though, is the idea that governments take account of each others' positions and actually negotiate. That happened at the Kyoto summit. Developed nations arrived arguing for a wide range of desired outcomes; during negotiations, positions converged, and a negotiated deal was done.
In Copenhagen, everyone talked; but no-one really listened.
The end of the meeting saw leaders of the US and the BASIC group of countries (Brazil, South Africa, India and China) hammering out a last-minute deal in a back room as though the nine months of talks leading up to this summit, and the Bali Action Plan to which they had all committed two years previously, did not exist.
Over the last few years, statements on climate change have been made in other bodies such as the G8, Major Economies Forum (MEF) and Asia-Pacific Economic Co-operation forum (APEC), which do not have formal negotiations, and where outcomes are not legally binding.
It appears now that this is the arrangement preferred by the big countries (meaning the US and the BASIC group). Language in the "Copenhagen Accord" could have been taken from - indeed, some passages were reportedly taken from, via the mechanism of copying and pasting - G8 and MEF declarations.
The logical conclusion is that this is the arrangement that the big players now prefer - an informal setting, where each country says what it is prepared to do - where nothing is negotiated and nothing is legally binding.
2. THE US POLITICAL SYSTEM
Just about every other country involved in the UN talks has a single chain of command; when the president or prime minister speaks, he or she is able to make commitments for the entire government.
Not so the US. The president is not able to pledge anything that Congress will not support, and his inability to step up the US offer in Copenhagen was probably the single biggest impediment to other parties improving theirs.
Viewed internationally, the US effectively has two governments, each with power of veto over the other. Doubtless the founding fathers had their reasons. But it makes the US a nation apart in these processes, often unable to state what its position is or to move that position - a nightmare for other countries' negotiators.
3. BAD TIMING
Although the Bali Action Plan was drawn up two years ago, it is only one year since Barack Obama entered the White House and initiated attempts to curb US carbon emissions.
He is also attempting major healthcare reforms; and both measures are proving highly difficult.
If the Copenhagen summit had come a year later, perhaps Mr Obama would have been able to speak from firmer ground, and perhaps offer some indication of further action down the line - indications that might have induced other countries to step up their own offers.
As it is, he was in a position to offer nothing - and other countries responded in kind.
4. THE HOST GOVERNMENT
In many ways, Denmark was an excellent summit host. Copenhagen was a friendly and capable city, transport links worked, Bella Center food outlets remained open through the long negotiating nights.
But the government of Lars Lokke Rasmussen got things badly, badly wrong.
Even before the summit began, his office put forward a draft political declaration to a select group of "important countries" - thereby annoying every country not on the list, including most of the ones that feel seriously threatened by climate impacts.

The chief Danish negotiator Thomas Becker was sacked just weeks before the summit amid tales of a huge rift between Mr Rasmussen's office and the climate department of minister Connie Hedegaard. This destroyed the atmosphere of trust that developing country negotiators had established with Mr Becker.

Procedurally, the summit was a farce, with the Danes trying to hurry things along so that a conclusion could be reached, bringing protest after protest from some of the developing countries that had presumed everything on the table would be properly negotiated. Suspensions of sessions became routine.

Despite the roasting they had received over the first "Danish text", repeatedly the hosts said they were preparing new documents - which should have been the job of the independent chairs of the various negotiating strands.

China's chief negotiator was barred by security for the first three days of the meeting - a serious issue that should have been sorted out after day one. This was said to have left the Chinese delegation in high dudgeon.

When Mr Rasmussen took over for the high-level talks, it became quickly evident that he understood neither the climate convention itself nor the politics of the issue. Experienced observers said they had rarely seen a UN summit more ineptly chaired.

It is hard to escape the conclusion that the prime minister's office envisaged the summit as an opportunity to cover Denmark and Mr Rasmussen in glory - a "made in Denmark" pact that would solve climate change.

Most of us, I suspect, will remember the city and people of Copenhagen with some affection. But it is likely that history will judge that the government's political handling of the summit covered the prime minister in something markedly less fragrant than glory.

5. THE WEATHER

Although "climate sceptical" issues made hardly a stir in the plenary sessions, any delegate wavering as to the scientific credibility of the "climate threat" would hardly have been convinced by the freezing weather and - on the last few days - the snow that blanketed routes from city centre to Bella Center.

Reporting that the "noughties" had been the warmest decade since instrumental records began, the World Meteorological Organization (WMO) noted "except in parts of North America".

If the US public had experienced the searing heat and prolonged droughts and seriously perturbed rainfall patterns seen in other corners of the globe, would they have pressed their senators harder on climate action over the past few years?

6. 24-HOUR NEWS CULTURE

The way this deal was concocted and announced was perhaps the logical conclusion of a news culture wherein it is more important to beam a speaking president live into peoples' homes from the other side of the world than it is to evaluate what has happened and give a balanced account.

The Obama White House mounted a surgical strike of astounding effectiveness (and astounding cynicism) that saw the president announcing a deal live on TV before anyone - even most of the governments involved in the talks - knew a deal had been done.

The news went first to the White House lobby journalists travelling with the president. With due respect, they are not as well equipped to ask critical questions as the environment specialists who had spent the previous two weeks at the Bella Center.

After the event, of course, journalists pored over the details. But the agenda had already been set; by the time those articles emerged, anyone who was not particularly interested in the issue would have come to believe that a deal on climate change had been done, with the US providing leadership to the global community.

The 24-hour live news culture did not make the Copenhagen Accord. But its existence offered the White House a way to keep the accord's chief architect away from all meaningful scrutiny while telling the world of his triumph.

7. EU POLITICS

For about two hours on Friday night, the EU held the fate of the Obama-BASIC "accord" in its hands, as leaders who had been sideswiped by the afternoon's diplomatic coup d'etat struggled to make sense of what had happened and decide the appropriate response.

If the EU had declined to endorse the deal at that point, a substantial number of developing countries would have followed suit, and the accord would now be simply an informal agreement between a handful of countries - symbolising the failure of the summit to agree anything close to the EU's minimum requirements, and putting some beef behind Europe's insistence that something significant must be achieved next time around.

So why did the EU endorse such an emasculated document, given that several leaders beforehand had declared that no deal would be better than a weak deal?

The answer probably lies in a mixture - in proportions that can only be guessed at - of three factors:

- Politics as usual - ie never go against the US, particularly the Obama US, and always emerge with something to claim as a success.
- EU expansion, which has increased the proportion of governments in the bloc that are unconvinced of the arguments for constraining emissions.
- The fact that important EU nations, in particular France and the UK, had invested significant political capital in preparing the ground for a deal - tying up a pact on finance with Ethiopia's President Meles Zenawi, and mounting a major diplomatic push on Thursday when it appeared things might unravel.

Having prepared the bed for US and Chinese leaders and having hoped to share it with them as equal partners, acquiescing to an outcome that it did not want announced in a manner that gave it no respect arguably leaves the EU cast in a role rather less dignified that it might have imagined.
CAMPAIGNERS GOT THEIR STRATEGIES WRONG
An incredible amount of messaging and consultation went on behind the scenes in the run-up to this meeting, as vast numbers of campaign groups from all over the planet strived to co-ordinate their "messaging" in order to maximise the chances of achieving their desired outcome.

The messaging had been - in its broadest terms - to praise China, India, Brazil and the other major developing countries that pledged to constrain the growth in their emissions; to go easy on Barack Obama; and to lambast the countries (Canada, Russia, the EU) that campaigners felt could and should do more.

Now, post-mortems are being held, and all those positions are up for review. US groups are still giving Mr Obama more brickbats than bouquets, for fear of wrecking Congressional legislation - but a change of stance is possible.

Having seen the deal emerge that the real leaders of China, India and the other large developing countries evidently wanted, how will those countries now be treated?

How do you campaign in China - or in Saudi Arabia, another influential country that emerged with a favourable outcome?

The situation is especially demanding for those organisations that have traditionally supported the developing world on a range of issues against what they see as the west's damaging dominance.

After Copenhagen, there is no "developing world" - there are several. Responding to this new world order is a challenge for campaign groups, as it will be for politicians in the old centres of world power.

Story from BBC NEWS:

Published: 2009/12/22 16:33:07 GMT

Copenhagen has given us the chance to face climate change with honesty
A carbon-use dividend for everybody must replace the old, ineffectual 'cap-and-trade' scheme

James Hansen, 12/27/09  The Observer
http://www.guardian.co.uk/environment/2009/dec/27/james-hansen-copenhagen-agreement-opportunities/print

Chart showing emission trends.

Last weekend's minimalist Copenhagen global climate accord provides a great opportunity. The old deceitful, ineffectual approach is severely wounded and must die. Now there is a chance for the world to get on to an honest, effective path to an agreement.

The centrepiece of the old approach was a "cap-and-trade" scheme, festooned with offsets and bribes – bribes that purportedly, but hardly, reduced carbon emissions. It was analogous to the indulgences scheme of the Middle Ages, whereby sinners paid the Church for forgiveness.

In today's indulgences the sinners, developed countries, buy off developing countries by paying for "offsets" to their own emissions and providing reparation money for adaptation to climate change. But such hush money won't work. Yes, some developing country leaders salivated over the proffered $100 billion per year. But by buying in, they would cheat their children and ours. Besides, even the $100 billion hush money is fugacious. The US, based on its proportion of the fossil fuel carbon in the air today, would owe $27 billion per year. Chance of Congress providing that: dead zero. Maybe the UK will cough up its $6 billion per year and Germany its $7 billion per year. But who will collect Russia's $7 billion per year?

Most purchased "offsets" to fossil fuel carbon dioxide emissions are hokey. But there is no need to flagellate the details of this modern indulgences scheme. Science provides an unambiguous fact that our leaders continue to ignore: carbon dioxide from fossil fuel burning remains in the climate system for millennia. The only solution is to move promptly to a clean energy future.
The difficulty is that fossil fuels are the cheapest energy, if the price does not include the damage they do to human health, the planet, and the future of our children. "Goals" for future emission reductions, whether "legally binding" or not, are utter nonsense as long as fossil fuels are the cheapest energy. The Kyoto Protocol illustrates the deceit of our governments, which have not screwed up their courage to face down the fossil fuel industry. As the graph here shows, global fossil fuel emissions were increasing 1.5% per year prior to the 1997 Kyoto accord. After "Kyoto" emission growth accelerated to 3% per year. A few developed countries reduced their fossil fuel use. The only important effect of that was to slightly reduce demand for fuel, helping to keep its price down. The fuel was burned in other places, and products made were shipped back to developed countries.

As far as the planet is concerned, agreements to "cap" emissions, such as the Kyoto Protocol and the imagined Copenhagen Protocol, are worthless scraps of paper. As long as fossil fuels are the cheapest energy, they will be burned somewhere. This fact helps define a solution to the climate problem. Yes, people must make changes in the way they live. Countries must cooperate. Matters as intractable as population must be included. Technology improvements are required. Changes must be economically efficient. The climate solution necessarily will increase the price of fossil fuel energy. We must admit that. But in the end, energy efficiency and carbon-free energy can be made less expensive than fossil fuels, if fossil fuels' cost to society is included. The solution must have honesty, backbone and a fair international framework. We need a rising price on carbon applied at the source (the mine, wellhead, or port of entry). The fee will affect all activities that use fossil fuels, directly or indirectly. The entire fee collected from fossil fuel companies should be distributed to the public. In this fee-and-dividend approach people maintaining a carbon footprint smaller than average will receive more in the dividend than they pay via increased energy costs. The monthly dividend, deposited electronically in their bank account or on their debit card, will stimulate the economy and provide people with the means to increase their carbon efficiency. All that governments need do is divide the collected revenue by the number of shares, with half-shares for children, up to two children per family.

Some economists prefer a payroll tax deduction over a dividend, because taxes depress the economy. The problem is that about half of the public are not on payrolls, because of retirement or involuntary unemployment. I suggest that at most 50% of the collected carbon fee should be used for payroll tax deduction.

Cap-and-trade is the antithesis of this simple system. Cap-and-trade is a hidden tax, increasing energy costs, but with no public dividend. Its infrastructure costs the public, who also fund the profits of the resulting big banks and speculators. Cap-and-trade is advantageous only to energy companies with strong lobbyists and government officials who dole out proceeds from pollution certificates to favoured industries.

Fee-and-dividend, in contrast, is a non-tax – on average it is revenue-neutral. The public will probably accept a rise in the carbon fee rate, because their monthly dividend will increase correspondingly. As fee-and-dividend causes fossil fuel energy prices to rise, a series of points will be reached at which various carbon-free energies and carbon-saving technologies are cheaper than fossil fuels plus the fee. The market place will choose the best technology. As time goes on, fossil fuel use will collapse, coal will be left in the ground, and we will have arrived at a clean energy future. A rising carbon fee is essential for a climate solution. But how to achieve a fair international framework?

The critical requirement is that the United States and China agree to apply across-the-board carbon fees, at a relative rate to be negotiated. Why would China agree to a carbon fee? China does not want to be saddled with the problems that attend fossil fuel addiction such as those that plague the United States. Besides, China would be hit extraordinarily hard by climate change. A uniform rising carbon fee is the most economically efficient way for China to limit its fossil fuel dependence.

Copenhagen discussions showed that China and the United States can work together. Europe, Japan, and most developed countries would very probably agree to a similar status to that of the United States. Countries refusing to levy an across-the-board carbon fee can be dealt with via an import duty collected on products from that nation in accord with the amount of fossil fuel that goes into producing the product. The World Trade Organisation already has rules permitting such duties.

The international framework must define how proceeds from import duties are used to assure fairness. Duties on products from developing countries will probably dwarf present foreign aid to those countries. These funds should be returned to developing countries, but distributed so as to encourage best practices, for example, improved women's rights and education that helps control population growth. Fairness also requires that distribution of the funds takes account of the ongoing impacts of climate change. Successful efforts in limiting deforestation and other best practices could also be rewarded.

James Hansen was the first scientist to warn the US Congress of the dangers of climate change. The ideas discussed in this article are expanded on in his new book "Storms of My Grandchildren".

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Dear Friends and Colleagues:

The Worldwatch Copenhagen team is now taking a well-deserved holiday break following the most chaotic and unpredictable environmental negotiation I’ve attended in the last 25 years. Between the dramatic and unprecedented intervention of world leaders in the negotiations to the logistical problems encountered by accommodating 30,000-plus participants, and the bitter wind and cold of Denmark in December, it was a memorable event all around. I’ve attached my initial take on the outcome and the way forward.

ESCAPE FROM COPENHAGEN

Christopher Flavin

President Obama’s speech in Copenhagen last Friday included a line that few who had spent the past two weeks listening to bickering negotiators would disagree with: “While the reality of climate change is not in doubt, I have to be honest, I think our ability to take collective action is in doubt right now and it hangs in the balance.”

Also hanging in the balance is the habitability of the planet. The Copenhagen conference did not come close to setting the world on a path to stabilizing the climate—or even to keeping the temperature increase below 2 degrees C, which is one of the few actual numbers in the 12-paragraph “Copenhagen Accord.”

Both in its ambition and in the weakness of its framework—an accord rather than a legally binding protocol—Copenhagen represented a significant step backward from the climate treaty process that began in Rio de Janeiro in 1992 and was strengthened with the Kyoto Protocol which came into force earlier this decade. And because the accord was crafted by a handful of new and old economic powers, many saw it as a breakdown of the U.N. process and its need for consensus among 193 nations.

Given the intensity of the public and governmental build up to Copenhagen, the vitriol of many of the reactions is understandable. The Obama Administration is rightly criticized for waiting so late to be clear about its approach to the negotiations and for not having earlier and more productive discussions with the Europeans, Chinese, and others. The Chinese government also shares blame for its unwillingness to recognize its growing responsibility to take action and to allow international verification of its efforts. The Europeans—the undisputed world leaders in climate policy—have meanwhile been in denial for most of the past year about the state of the negotiations and the need to directly engage the world’s largest emitters on fundamental questions about the kind of agreement that was being crafted. And some of the poor countries most vulnerable to climate change—including the Sudanese chair of the bloc of developing countries—did not help matters with the kind of angry rhetoric that is sure to make it harder to build political support for strong climate policies in the largest emitters.

While it is tempting to respond to the near collapse in Copenhagen with a combination of anger and despair, neither will lead to the result that we and others believe is urgently needed: the transition to a low-carbon economy in the decades immediately ahead. Rather, it is time to practically and analytically assess where the world is on climate change in the aftermath of Copenhagen—and develop a new strategy for carrying the process forward.

And that starts with recognition that the U.N. climate negotiations went off track long before the breakdown in Copenhagen revealed what has been clear for some time. Now that the major emitting countries have made clear that they will only accept emissions targets that are developed internally—and submitted for international review voluntarily—attention will shift back to the national level.

While this can be seen as a step backward, it also reflects the reality of where these countries are politically. And there is a silver lining to this cloud. The United States, China, India, and Brazil have all made substantial progress in implementing important new energy and climate policies in the past two years, and it seems likely that the extraordinary personal engagement of their leaders in those national processes—and in the final bargaining in Copenhagen—will help drive further progress in the coming years.

One of the great ironies of Copenhagen is that the international politics of climate change turned to chaos just as the global economy appeared, finally, to be headed in a less carbon-intensive direction. With a big assist from higher oil prices as well as new national and state policies, energy efficiency and renewable energy are advancing more rapidly than ever before. Indeed, the more important competition between the U.S. and China is not over which will be able to take on the least ambitious climate obligations, but rather
over who will lead the world in building and selling the low-carbon technologies that have recently become a $100 billion-plus market.

The big emitters have a long way to go to get their emission trends onto a viable path; all are heavily dependent on the carbon intensive technologies of the past. But it is now clear that their success in that critical endeavor will be driven more by domestic economics and politics rather than the international negotiating process. In the coming months, attention will turn to the looming battle royale in the U.S. Senate and to less visible policy debates in China, India, Brazil, and South Africa. Successful legislation will depend on the ability to persuade domestic constituents that they will benefit economically as well as environmentally from an energy transition.

The United Nations climate process will go on, and the challenge now is to prevent it from turning into an angry, rhetorical talk shop. That can best be accomplished if it focuses on practical and critical goals that need to be accomplished: providing financial support for the world’s poorest countries to mitigate and adapt to climate change; accelerating international cooperation on technology; and mounting an international effort to protect the world’s remaining forests.

Efforts over the next few years will determine whether Copenhagen was a fatal setback for efforts to combat climate change, or just a painful mid-course correction. This time, the negotiator across the table is the planet itself—and our human future.

What Hath Copenhagen Wrought? A Preliminary Assessment of the Copenhagen Accord
December 20th, 2009 By Robert Stavins

After years of preparation, the Fifteenth Conference of the Parties (COP-15) of the United Nations Framework Convention on Climate Change (UNFCCC) commenced on December 7th, 2009, and adjourned some two weeks later on December 19th after a raucous all-night session. The original purpose of the conference had been to complete negotiations on a new international agreement on climate change to come into force when the Kyoto Protocol’s first commitment period comes to an end in 2012. But for at least the past six months, it had become clear to virtually all participants that such a goal was out of reach—and the COP-15 objective was publically downgraded in mid-November to a non-binding agreement by heads of state at a meeting in Singapore of the Asia-Pacific Economic Conference.

I begin by describing what were reasonable expectations going into the Copenhagen negotiations and appropriate definitions of success for COP-15, and then turn to the unprecedented process which unfolded over the final 36 hours of the conference. Next, I describe the fundamental architecture of the sole product that emerged – the Copenhagen Accord – and describe its key provisions, with an assessment of each component. I close with an examination of the major pending issues and the available procedural routes ahead.

Sensible Expectations and Definitions of Success for Copenhagen

There was much hand-wringing in the months leading up to COP-15 about how difficult the negotiations had become. I saw this as something of “A Silver Lining in the Climate Talks Cloud,” because the difficulty was largely a consequence of key countries of the world taking very seriously the task of expanding the coalition of the willing.

Going into Copenhagen, the challenge was very great, largely because of fundamental economic (and hence political) realities, as I explained in a previous post, “Chaos and Uncertainty in Copenhagen?” Given legitimate concerns about issues of efficiency, on the one hand, and distributional equity, on the other hand, it was not surprising that the industrialized countries (particularly the United States) insisted that China and other key emerging economies participate in a future agreement in meaningful and transparent ways, nor that the developing countries insisted that the industrialized countries foot much of the bill.

The key question was whether the negotiators in Copenhagen could identify a policy architecture that is both reasonably cost-effective and sufficiently equitable to generate support from the key countries of the world, and thus do something truly meaningful about the long-term path of global greenhouse gas emissions. There were (and are) some promising paths forward, as we have documented in the Harvard Project on International Climate Agreements, and as we examine in a pair of current books (Post-Kyoto International Climate Policy: Summary for Policymakers; and Post-Kyoto International Climate Policy: Implementing Architectures for Agreement).
At the final hour in Copenhagen, the leaders of a small number of key countries worked creatively together to identify a politically feasible path forward. I have previously argued ("Defining Success for Climate Negotiations in Copenhagen") that the best goal for the Copenhagen climate talks was to make progress on a sound foundation for meaningful, long-term global action, not some notion of immediate, numerical triumph. That has essentially been accomplished with the “Copenhagen Accord,” despite its flaws and despite overt challenges from five of some 193 countries represented (Bolivia, Cuba, Nicaragua, Sudan, and Venezuela).

An Unprecedented Process

Before turning to the substance of the Copenhagen Accord, it is worthwhile taking note of the quite remarkable process that led up to its “last-minute” creation. From all reports, the talks were completely deadlocked when U.S. President Barak Obama arrived on the scene at 8:00 am on Friday, December 18th, the scheduled final day of the conference. Through a series of bilateral and eventually multilateral meetings of President Obama with Chinese Premier Wen Jiabao, Indian Prime Minister Manmohan Singh, Brazilian President Luiz Inacio Lula da Silva, and South African President Jacob Zuma, a document gradually emerged which was to become the Copenhagen Accord.

It is virtually unprecedented in international negotiations for heads of government (or heads of state) to be directly engaged in, let alone lead, negotiations, but that is what transpired in Copenhagen. Although the outcome is less than many people had hoped for, and is less than some people may have expected when the Copenhagen conference commenced, it is surely better – much better – than what most people anticipated just three days earlier, when the talks were hopelessly deadlocked.

The Copenhagen Accord – Its Fundamental Architecture

The fundamental architecture of the Copenhagen Accord is one we recently analyzed in the Harvard Project on International Climate Agreements in “A Portfolio of Domestic Commitments: Implementing Common but Differentiated Responsibilities,” and about which I blogged at the end of November (Approaching Copenhagen with a Portfolio of Domestic Commitments). Essentially, under such an approach each nation commits and registers to abide by its domestic climate commitments, whether those are in the form of laws and regulations or multi-year development plans. This is essentially the “schedule approach” introduced by the Australian government in spring 2009.

After its release, President Obama characterized the new Accord as “an important first step” at his press conference shortly before returning to Washington. I would prefer to amend that characterization to call the Accord a potentially very important third step. Step One was the UN Earth Summit in Rio de Janeiro in 1992, which produced the U.N. Framework Convention on Climate Change. Step Two was the Kyoto Protocol, signed in Japan in 1997. But what many policy wonks (myself included), not to mention the United States Senate, immediately recognized was the absence from the Kyoto Protocol of involvement in truly meaningful ways of the key, rapidly-growing developing countries, a small set of important nations that are now better termed “emerging economies” – China, India, Brazil, South Africa, Mexico, and Korea. This was a primary deficiency of Step Two, as well as the lack of serious attention to the long-term path of emissions (as opposed to the five-year time horizon of Kyoto).

The Copenhagen Accord establishes a framework for addressing both deficiencies, and thereby can be characterized as a potentially very important third step – expanding the coalition of the willing and extending the time-frame of action. With this step, all of the seventeen countries of the Major Economies Forum– which together account for some 90% of global emissions – are agreeing to participate. Nevertheless, let’s be honest about the difference between the outcome of the 1997 negotiations in Kyoto (a detailed 20-page legal document, the Kyoto Protocol) and the outcome of the 2009 negotiations in Copenhagen (a general 3-page political statement, the Copenhagen Accord). Still, it remains true that the COP-15 negotiations were “saved from utter collapse” by the creation and acceptance of the Copenhagen Accord.

The Copenhagen Accord – Key Provisions and Preliminary Assessment

It is unquestionably the case that the Accord represents the best agreement that could be achieved in Copenhagen, given the political forces at play. Indeed, were it not for the spirited – and as I suggested above, quite remarkable – direct intervention by President Obama, together with the other key national leaders, there would have been no real outcome from the Copenhagen negotiations. That said, let’s take a critical look at the Accord, item by item. The key provisions (as I interpret them, with my own numbering, not that of the Accord) are these:

1. The signatories validate their will to “urgently combat climate change in accordance with the principle of common but differentiated responsibilities and respective capabilities.” The signatories agree that deep cuts in global emissions are required to
hold global temperature increases to 2 degrees Centigrade, and commit to take actions to meet this objective, “consistent with science and on the basis of equity.”

Assessment: Although the Accord notes the importance of the frequently-discussed 2 degrees Centigrade target, it does not spell out actions that will achieve it. The Accord also notes the importance of the principle of “common but differentiated responsibilities,” which is of great importance to developing countries.

2. Action and cooperation on adaptation is urgently required, particularly in the least developed countries, small island developing states, and Africa. Developed countries commit to provide financial resources to support adaptation measures in developing countries.

Assessment: Recognizing the importance of adaptation and providing financial resources to support it in developing countries is an important departure from Kyoto. Targeting the funds to the “least developed countries” is sensible.

3. Annex I Parties of the Kyoto Protocol (the 1997 list of the industrialized countries and the emerging market economies of Central and Eastern Europe) commit to implement mitigation actions (specified in Appendix I), and Non-Annex I Parties (the developing world, as defined in the Kyoto Protocol) also commit to implement mitigation actions (specified in Appendix II), all of which will be submitted to the UNFCCC Secretariat by January 31, 2010.

Assessment: These appendices (“schedules”) of domestic mitigation targets, actions, and policies are the heart of the Portfolio approach, as I described above. This is where the action is.

It is unfortunate (but was probably politically necessary) that the Accord maintains the distinction of Annex I versus non-Annex I countries from the Kyoto Protocol. I have characterized this distinction in the Kyoto Protocol as the “QWERTY keyboard” (unproductive path dependence) of international climate policy, because it has been the greatest impediment to developing a meaningful international arrangement. It is because of the presence of this distinction that developing countries have insisted on a continuation of the Kyoto Protocol for a second (post-2012) commitment period.

Note that even if the Annex I list was appropriate in 1997, it surely no longer is: more than 60 non-Annex I countries now have greater per capita income than the poorest of the Annex I countries.

An important improvement would be to employ a formulaic mechanism that takes a variety of factors into account, including per capita income, to determine the stringency of ambition, targets, or actions for individual countries, rather than the dichotomous distinction of having targets or not (“Global Climate Policy Architecture and Political Feasibility: Specific Formulas and Emission Targets to Attain 460 PPM CO2 Concentrations”).

If a continuous spectrum with all countries listed in the same table is not politically feasible, then a mechanism is needed for countries to transition from one list to the other. Korea and Mexico joined the OECD six months after Kyoto, but they remain off the Annex I list.

4. Emissions reductions for the Annex I parties will be measured, reported, and verified according to guidelines (to be established), which will be rigorous and transparent, whereas mitigation actions taken by non-Annex I parties will be subject to domestic measurement, reporting, and verification (MRV) reported through national communications, with international consultation and analysis.

Assessment: There was a great deal of attention to this issue in Copenhagen, with all members of the U.S. delegation talking about the importance of “transparency.” The compromise seems acceptable: developing countries employ domestic measurement, reporting, and verification, but it is subject to “international consultation and analysis.”

Interestingly, the Accord is silent on the issue of “international competitiveness” and the possible use of border adjustments (border taxes or import allowance requirements in national cap-and-trade systems). This is a controversial point, since inclusion of such mechanisms is important in domestic U.S. politics, but is anathema to China, India, and other developing countries.

5. Least developed countries and small island developing states may undertake actions voluntarily and on the basis of support (from other countries). Such actions will be subject to international measurement, reporting, and verification.
Assessment: This is the third element of the national schedules, reserved for the poorest developing countries (which contribute only trivially to greenhouse gas emissions), and it seems acceptable, although a graduation mechanism would again be desirable. Interestingly, if their actions are funded by developed countries, then those actions are subject to the most stringent MRV. So-called technology transfer mechanisms are included in this context.

6. The parties will establish positive incentives to stimulate financial resources from developed countries to help reduce emissions from deforestation and degradation.

Assessment: This is a potentially important change, as the lack of meaningful attention to retarding deforestation was a significant deficiency of the Kyoto Protocol. We have investigated appropriate mechanisms in the Harvard Project on International Climate Agreements (“International Forest Carbon Sequestration in a Post-Kyoto Agreement”).

7. The parties agree to pursue opportunities to use markets to achieve cost-effective mitigation actions.

Assessment: As we have documented in the Harvard Project (“Linkage of Tradable Permit Systems in International Climate Policy Architecture”), it is very important that future international agreements facilitate or at least not discourage voluntary linkage of national and multi-national cap-and-trade systems. Needless to say, this provision in the Accord – like virtually all of the provisions – will require specific details to make it operational.

8. Predictable and adequate funding will be provided to developing countries for emissions mitigation, reduction of deforestation, and adaptation. There is a collective commitment from developed countries “approaching” $30 billion for the period 2010-2012, “balanced between adaptation and mitigation,” with adaptation funding being prioritized for the most vulnerable developing countries.

Assessment: To whatever degree the funding for mitigation is of government-government form (expanded foreign aid), legitimate concerns exist about both the feasibility of marshalling the necessary amounts and the efficiency of its use. The private sector needs to be employed, as I have previously argued (“Only Private Sector Can Meet Finance Needs of Developing Countries”).

9. The developed countries commit to a goal of jointly mobilizing $100 billion annually by 2020 from sources both public and private.

Assessment: It is important that the Accord notes that the funds can come from either public or private sources. Governments can — through the right domestic and international policy arrangements — provide key incentives for the private sector to provide the needed finance through foreign direct investments for emissions mitigation (clearly a role exists for government assistance for adaptation). For example, if the cap-and-trade systems which are emerging throughout the industrialized world as the favored domestic approach to reducing CO2 and other greenhouse gas emissions are linked together through the existing, common emission-reduction-credit system, namely the Clean Development Mechanism (CDM), then powerful incentives can be created for carbon-friendly private investment in the developing world.

Clearly the CDM, as it currently stands, cannot live up to this promise, but with appropriate reforms there is significant potential. Of course, problems of limited additionality will inevitably remain. Therefore, what is needed is for the key emerging economies to take on meaningful emission targets themselves (even if equivalent to business as usual in the short term), and then participate directly in international cap-and-trade, not government-government trading as envisioned in Article 17 of the Kyoto Protocol (which will not work), but firm-firm trading through linked national and multi-national cap-and-trade systems.

Such private finance stands a much greater chance than government aid of being efficiently employed, that is, targeted to reducing emissions, rather than spent by poor nations on other (possibly meritorious) purposes.

10. Evaluation of the Accord’s implementation is to be completed by 2015, including consideration of strengthening the long-term goal as the science indicates.

Assessment: Depending upon when the Accord is implemented, completing an assessment by 2015 might or might not be reasonable. A provision to strengthen the long-term goals of the Accord may be sensible, but it would seem that the provision should provide more generally that the long-term goal should be “adjusted as the science indicates,” so as not to pre-judge what future scientific research may reveal.
11. In the official version of the Accord released by the UNFCCC, Appendix I (quantified 2020 economy-wide emissions targets for Annex I countries) and Appendix II (nationally appropriate mitigation actions of developing country parties) are left blank, to be completed by January 30, 2010.

Assessment: It is unfortunate that no numbers or other specifics were included in the two appendices, because many of the various parties have previously made public statements regarding commitments, plans, or expectations that would actually have provided considerable information. Some specificity of the tables – both numerical pledges from Annex I countries and “voluntary pledges” from developing countries — would have better demonstrated the compelling substance of the Accord, and would thereby have given the agreement greater credibility, at least in news media reports.

The Way Forward

Many details regarding these elements of the Accord as well as other unspecified issues remain on the table, and will presumably be examined and negotiated if nations move forward with the Copenhagen Accord and the basic architecture it promulgates. We are already at work on many of these issues in the Harvard Project on International Climate Agreements, including:

- metrics for evaluating commitments
- climate policy review mechanisms
- compliance mechanisms
- afforestation and deforestation mechanisms
- facilitating international market linkage
- fostering technology transfer
- methods of negotiating and updating climate agreements
- methods of providing incentives for developing country participation
- methods of carbon finance
- making an international climate agreement consistent with international trade rules

Whether the next step in international deliberations should be under the auspices of the UNFCCC or a smaller deliberative body, such as the Major Economies Forum (MEF), is an important question. Given the necessity of achieving consensus (that is, unanimity) in United Nations processes and the open hostility of a small set of nations, bilateral and multilateral discussions, including via the MEF, could be an increasingly attractive route, at least over the short term. (Such questions about preferred institutional venues for international climate negotiations and action constitute an important topic on which we are focusing research in early 2010 in the Harvard Project on International Climate Agreements, and about which I will write in future posts.)

The climate change policy process is best viewed as a marathon, not a sprint. The Copenhagen Accord – depending upon details yet to be worked out – could well turn out to be a sound foundation for a Portfolio of Domestic Commitments, which could be an effective bridge to a longer-term arrangement among the countries of the world. We may look back upon Copenhagen as an important moment – both because global leaders took the reins of the procedures and brought the negotiations to a fruitful conclusion, and because the foundation was laid for a broad-based coalition of the willing to address effectively the threat of global climate change. Only time will tell.

Epilogue

After I completed writing this blog post, I came across a superb essay on the same topic by David Doniger, Policy Director of the
NRDC Climate Center in Washington, D.C. It deserves to be read (and distributed).

Tags: Annex I, Asia-Pacific Economic Conference, Australia, Bolivia, Brazil, Brazilian President da Silva, cap-and-trade, China, common but differentiated responsibilities, Copenhagen, Copenhagen Accord, cost-effectiveness, Cuba, distributional equity, environmental politics, European Union, finance, forestry, free rider problem, global climate policy, import allowance requirement, India, Indian Prime Minister Singh, Japan, Korea, Major Economies Forum, market-based environmental policies, Mexico, Nicaragua, Obama Administration, Portfolio Approach, Premier Wen Jiabao, South Africa, South African President Zuma, Sudan, U.S. House of Representatives, U.S. Senate, UNFCCC, Venezuela, Waxman-Markey legislation

This entry was posted on Sunday, December 20th, 2009 at 1:54 pm and is filed under Climate Change Policy, Energy Economics, Energy Policy, Environmental Economics, Environmental Policy, Forest Policy, Positive Political Economy. You can follow any responses to this entry through the RSS 2.0 feed. You can leave a response, or trackback from your own site.

19 Comments

Doug Carmichael Says: December 20th, 2009 at 11:04 pm
Treats the ladder of decent: global crisis, climate change, global warming, greenhouse gases, CO2 emissions, and enter at the last stage. This is too easy. Avoiding problems of over consumption generally, toxicities, regional resource wars, population, food fishing, water. The problem is the global environmental crisis, but it has many dimensions, and divide and conquer will be to the advantage of those who want a growth economy and the rest will suffer greatly. This is not adequate. We used to say QED. An effort that does not go far enough, that in fact distracts, will be judged harshly by critics in just a few years.

Green Ink: Copenhagen’s Autopsy, Greens versus Greens, and Solar IPOs - Environmental Capital - WSJ Says: December 21st, 2009 at 8:09 am

[..] agreement but raises questions about the utility of the UN process for tackling climate change. Harvard’s Rob Stavins takes a deep dive into the accord, and weighs the potential impact internationally and in the [..]

Climate Chaos: Is There a Silver Lining to the Copenhagen Fiasco? - Environmental Capital - WSJ Says: December 21st, 2009 at 11:28 am

[..] [..]

Prasad Kasibhatla Says: December 21st, 2009 at 11:51 am
Rob,

Great post – thanks for the point-by-point assessment. One quick point, re point #11 above – I haven’t seen the unofficial version with the tables, but I assume they are consistent with what various countries had put forward prior to Copenhagen. I think it is important to note the subtle but important point that the current pledges do not preclude from achieving the 450 ppm target – much will depend on what happens post-2020, especially in the 2020-2030 time frame. I touch on this at http://www.nicholas.duke.edu/cop15/issues/issue-the-copenhagen-endgame and suggest one possible way forward at http://www.guardian.co.uk/commentisfree/cifamerica/2009/oct/15/carbon-emission-convergence-principle

Cheers, Prasad Kasibhatla

Daniel Ihara, Ph.D. Says: December 21st, 2009 at 12:17 pm
Yes, I basically agree, not the first, but the 3 1/2 major step in a process.

To put it mildly, climate negotiations are complex, at times intractable. But these negotiations have succeeded in being presented as the “Copenhagen Accord”. Twelve paragraphs is not much to show for two years work. These are non-binding and have only a list of measures countries will take to cut global warming pollution by specific amounts — no binding targets.

The Alliance of Small Island States (AOSIS) is faced with the submersion of some of their island members such as the Maldives and Tuvulu. I was at the COP (Conference of the Parties) 15 and attended a press briefing given by Lumumba Di-Aping, the Sudanese Ambassador and spokesperson representing the Group of 77 and China, a major bloc of the
Conference. (It is ironic that China was one of the five countries* that brokered the original deal that led to the Copenhagen Accord). Di-Aping called the deal “extremely flawed”.

Extremely flawed as it is, would not passing anything have been preferable? Would having two rival proposals the original Copenhagen Accord supported by Europe AND the Deal brokered by Obama been preferable? Is the “best” possible? Given the vast differences in the past-deadline time that remained, I think not. The “best” would have been the enemy of the possible (more to follow on NewWindsOfChange.com).

Steve Curwood Says: December 21st, 2009 at 12:52 pm
Thanks Rob, for a clear insightful analysis of what was in my experience a thoroughly muddled process. The deeply sincere intentions of the Danes were no match for the forces unleashed, and in the end the weakness at the gavel has to be considered. Carlos Estrada gavelled Kyoto through in 1997; if the Danish style of COP moderation had been used at COP3 there would be no Kyoto. Mexico takes over now, and early, as the Danes have declined to continue for the next year. Question: is it time for the UN to create a true climate agency? Rotating chairs for what has become the greatest threat to our civilization means that rookies are always in charge. Imagine if the World Health Organization were organized like the UNFCCC. There would have been 192 different opinions about whether H1N1 had become pandemic and what to do about it, and the chair would have been a part time job for some health minister who had never managed a pandemic before.

Robert Stavins Says: December 21st, 2009 at 1:19 pm
Hi, Steve, although I’ve found it impossible to respond to individual comments on this blog, simply because of a lack of time, I want to at least say “Hi,” thank you for your comments, and extend my best wishes to you — and other commenters — for the holidays and the new year. We’re following up on many of the key issues at the Harvard Project on International Climate Agreements, and may turn our attention to some of the fundamental procedural issues, including the one you’ve identified. Thanks, Rob

Jon Elam Says: December 21st, 2009 at 5:09 pm
Thanks for your great summary. As an attendee for the last few COPS the meetings are billed about the process. This has been I believe one of the great success of the past few meetings whether it created great climate policy or not, it did send the message that many, many countries which are out side of the normal world of international diplomacy had a part (a bit part). The Climate issue in many ways the first real issue that affects every single one of us. It may be empty rhetoric to say we are one world but darn it is is true.

Last week proved that the meetings were really about a select few, it suggested this issue is one for exclusive action not inclusivity and that the majority of the worlds nations are not to be central to the final agreement except that they might get some money out of the deal and should keep quite.

One cannot help but be inspired by the army of younger people and leaders who are growing every year in seemingly every nation. It is these people who are struggling to gain capacity skills and knowledge to help create the world of low carbon we all seek.

What Bill McKibben doesn’t like about the Copenhagen Accord is precisely what I like about it. | Climate Vine Says: December 21st, 2009 at 8:25 pm
[...] me therefore end with the conclusion of an analysis by the Harvard economist Robert Stavins: We may look back upon Copenhagen as an [...]
The Copenhagen Accord: A Big Step Forward

David Doniger
Policy Director, NRDC Climate Center, Washington, D.C.

The Copenhagen climate deal that President Obama hammered out Friday night with the leaders of China, India, Brazil and South Africa broke through years of negotiating gridlock to achieve three critical goals. First, it provides for real cuts in heat-trapping carbon pollution by all of the world’s big emitters. Second, it establishes a transparent framework for evaluating countries’ performance against their commitments. And third, it will start an unprecedented flow of resources to help poor and vulnerable nations cope with climate impacts, protect their forests, and adopt clean energy technologies.

This was not your ordinary leaders’ summit, where presidents and prime ministers place their stamp on outcomes agreed in advance. Rather, President Obama and his counterparts came into a conference on the verge of collapse. As Brazilian President Lula candidly said: “I did not expect . . . to submit Heads of State to certain discussions such as we had yesterday, I did not see for a long time.” It reminded him of his days as a trade union negotiator. Yet over the course of some 13 hours, President Obama personally forged an agreement that was endorsed by the four developing country leaders, then by the leaders of 28 developed and developing countries, and – after a raucous all-night debate – by nearly every nation on earth (see here and here).

And by securing both action and transparency from all big nations, the president boosted the odds for Senate passage of comprehensive energy and climate legislation next year.

Not a bad day’s work, huh?

Why then howls of disaster in European media, and rather tepid reviews in many U.S. stories? Some of the second-day reporting is beginning to highlight what was actually achieved. But too many observers, in my view, are judging the Copenhagen Accord by the wrong yardsticks.
They are holding the accord to standards and expectations that no outcome achievable at Copenhagen could reasonably have met – or even *should* have met.

So here I’ll respond to some of the concerns I’ve read or heard. Along the way I’ll refer to parts of the Copenhagen Accord – you can read it [here](#).

1. **The agreement isn’t enough to keep us under 2 degrees C.**

   There’s a broad consensus among scientists and policy makers that extraordinary dangers lie in letting average world temperatures increase by more than 2 degrees Celsius (3.6°F Fahrenheit). Paragraph 2 of the Copenhagen Accord reflects this 2 degree goal. Paragraph 12 calls for a review of the science by 2015, and consideration of a more protective target of 1.5°C. (Big countries had blocked proposals by small island and African countries to adopt a 1.5°C target now.)

   The accord’s critics express disappointment that the emission cuts intended by the big emitters will not be sufficient to achieve to meet even the 2°C limit. That currently planned emission cuts will not meet this goal is, of course, true. But even cock-eyed optimists should have known going into Copenhagen that an agreement ambitious enough to keep to 2 degrees was not achievable there. The U.S. is ready to act, and though its pending legislation calls for aggressive emission cuts after 2020, it starts somewhat slowly. China and other big developing countries are also ready to act, but (with the exception of South Africa) none of these countries is yet ready to commit to a peak year and to deep emission cuts thereafter.

   No one is hyping the accord as all we need to stop global warming. President Obama was candid Friday night that it is only “a first step.” Why then did some critics mistake his truthful assessment as some kind of admission of failure?

   The real goal going into Copenhagen was to get the U.S., China, and the other fast-growing developing countries to take their first steps to curb their emissions. That goal was achieved. And that was no mean feat.

2. **But the emission cuts aren’t specified.**

   Pointing to the blank tables at the end of the Copenhagen Accord, some observers have derided it as an empty agreement. They misunderstand the accord’s structure and the context of recent national commitments upon which it was drafted.

   (Some people, myself included, were briefly thrown off track by a draft circulating through the conference center mid-afternoon Friday with both the blank tables and filled-in tables that purported to show the commitments and actions of more than two dozen developed countries and 11 developing ones. The filled-in tables turned out to be only an illustrative example reportedly offered by the European Union at the November negotiating session in Barcelona. But for a couple of hours, observers thought they were looking at the real McCoy.)

   In reality, paragraphs 4 and 5 of the accord create an “open enrollment” period through the end of January 2010 for countries to record their emission reduction commitments and actions in the two tables. Countries that sign up in this period will be sort of original cosponsors, although later arrivals and enhanced commitments can be recorded anytime later.

   This structure made sense because the principal countries have already announced their likely commitments over the course of the last year. The European Union, of course, has had post-Kyoto targets on offer for some time. But in recent months there has been a cascade of additional policy announcements, from the U.S. and Japan, and from China, India, Brazil, South Africa, Mexico, South Korea, and others. Indeed, many leaders summarized their targets and planned actions in their speeches on Friday morning (we’ll post a summary soon). So President Obama and the other leaders knew on Friday, to a reasonable degree of certainty, what one another will inscribe come January.

   As many observers have noted, the announced commitments are not enough to prevent dangerous climate change. To be sure, more is needed (see #1, above). But the targets and policy announcements on offer today from big developing countries would have been unthinkable a year ago.

   Even the U.S. position has evolved: President Obama supported a 14 percent reduction from 2005 levels by 2020 during his campaign and as president-elect. The House of Representatives raised the bar to 17 percent in the climate and energy legislation passed in June, and the president followed suit in his November announcement (“in the range of 17 percent”). Senators are considering a proposal from Senator Max Baucus (D-MT) that could allow the president to raise the 2020 target to 20 percent reduction, based on a finding that other countries have put forward sufficient commitments and are carrying them out.

   In short, the Copenhagen Accord creates a dynamic situation, with the potential for a virtuous circle of countries reinforcing their commitments over time in response to similar moves by others.

3. **The commitments aren’t legally binding.**

   Let us start by observing that there is a lot of confusion on what it means for an agreement to be “legally binding,” and on why it is important.

   At the highest level, many campaigners see this as an acid test of seriousness. Any agreement that is “legally binding” is serious; a political agreement is not. That’s too simple. Agreements can be effective even though non-binding, if the parties are motivated by self- and mutual interest to observe them. And legal agreements can be ineffective; if parties are not inclined to comply, there are few formal international legal tools to compel them.

   At another level, arguments that one group of parties “shall” undertake commitments, and that another group “should” or “may” do so, reflect the fundamental policy disagreement over whether developing countries should agree to take action at this time. Those arguments also reflect efforts to maintain the Kyoto Protocol’s strict dichotomy between developed and developing countries, a distinction that the Copenhagen Accord blurs.

   And at a third level, some contend commitments need to be “legally binding” in order for market-based systems, such as emissions trading, to work across borders. Paragraphs 6 and 7 of the Copenhagen Accord reflect the importance of markets to preventing deforestation and to reducing costs and mobilizing clean technology. But what markets need is rules and predictability, and these can be supplied through a variety of means. The Kyoto Protocol and the Marrakesh agreement (which took an additional four years to
The debate was initiated by Tuvalu, a tiny island country in danger of extinction from rising seas, with possibly the highest moral claim to more ambitious action. Tuvalu’s delegate lamented the absence of a 1.5 degree C target and denounced the promise of adaptation assistance as “30 pieces of silver.” “My country is not for sale,” he said. He earned heartfelt applause from many NGOs and other delegates.

But Tuvalu was soon joined by others with obstructionist and collateral motives. The process was “undemocratic” and “not transparent,” argued such paragons of democracy and transparency as Venezuela, Cuba, and the Sudan. (Venezuelan President Chavez had indulged earlier that day in an insulting anti-American, anti-Obama tirade.)

Next came the delegate from the Sudan. Notably, he spoke on behalf of his country alone, not in his usual role as representative of the G-77 and China. With China and other big developing countries, and many smaller ones, already backing the accord, the G-77 had no unified position.

The Sudanese delegate nonetheless charged that the Copenhagen agreement would condemn Africa to millions of deaths. He then went over the edge, comparing the “values” behind the accord to those that consigned the six million to the ovens in Europe. That turned the tide. The excess was so clear. Country after country raised their flags to defend the accord and denounce the Holocaust comparison. Among the most eloquent was the President of the Maldives, the highest ranking leader to participate in the all-night debate. Nearly all other low-lying and island nations, and many African countries, raised their voices in support.

The Sudan’s other delegate – a hired hand from the Philippines, a career obstructionist in negotiations for nearly two decades – spoke next, interminably as always. And here was her core argument: We career negotiators should reject the interference of presidents and prime ministers, who do not know what they are doing. We should seize back control of the process that the leaders were wresting away!

This was too much even for some of the most obstructive delegations. Saudi Arabia even spoke up for the accord.
As the final demonstration that the Conference of the Parties does not work, five delegations (Venezuela, Bolivia, Cuba, Nicaragua, and the Sudan – notably not Tuvalu) blocked every effort to adopt the Copenhagen Accord by consensus decision. The rules of the COP require consensus – adoption of a rule to allow majority vote in cases as a last resort has been blocked for 15 years. Finally, after removing the incompetent Danish President Rasmussen from the chairman’s role, a way was found to persuade the objectors to allow a decision “taking note” of the Copenhagen Accord – a step UN officials say has the same practical effect as an adoption decision. The compromise involved listing at the top of the accord those countries that endorse it, thus allowing the dissenters to distance themselves. So the Copenhagen Accord will go forward under the name of those countries that endorse it and with the participation of those that elect to inscribe their commitments and actions by the end of January. By the end of the debate, the anger in the room had spent itself. NGOs deeply sympathetic to Tuvalu and the other island nations could not abide either Venezuela or the Sudan. With China, India, Brazil, South Africa and many other big developing nations set to join the accord, the G-77 may have reached its end as a unified force. This will have enormous implications for the future of the UNFCCC and the functioning of the Copenhagen Accord, which is my next topic.

5. *So the Copenhagen Accord is just like George Bush’s Major Economies Process.*

The Bush administration created a 17-member Major Economies Meeting – the MEM – in 2007, consisting of the largest developed and developing economies and CO2 emitters. The Obama administration continued the group under the name the Major Economies Forum (MEF).

What’s the difference, I’ve been asked. In a nutshell, the premise of the MEM in the Bush days was “cover” – a mutual non-action pact. We won’t act because you won’t act. The premise of the MEF under Obama is the opposite – a mutual action pact. We’re going to tackle global warming, we expect you to, and let’s do it together.

Other nations surely are frustrated that the U.S. has not yet adopted domestic legislation – indeed, that’s the number one limitation on our power to persuade. But they do see a dramatic difference between the new administration and the old one, as evidenced by the recovery act investments in clean energy, fuel economy standards, action to curb greenhouse gases under the Clean Air Act, and House passage of energy and climate legislation. That is why President Obama was ultimately able to convince the leaders of the big developing economies to join this new effort.

Another difference from the original MEM is that the Copenhagen Accord will not be limited to big emitters. It includes substantial assistance to developing countries – and especially the poorest and most vulnerable – for adaptation, forest protection, and clean energy. See paragraphs 6 and 8-11. Some assistance will likely go to big countries to support their emission cutting plans. China’s leaders know, however, that their country will not receive much of this money (although they did take umbrage at the suggestion that China should be categorically excluded). Most will go to the nations most exposed to droughts, floods, and sea level rise, and to nations willing and able to stop tropical forest loss. These countries are expected to sign up to the new agreement in significant numbers.

This raises unanswered questions about how the new accord will be governed. Presumably, the current members of the MEF will have a key role. The role of other countries that offer commitments and actions to curb emissions and stop deforestation must be addressed, as well as the role of countries that are intended to benefit from adaptation and other assistance.

And what of the relationship to the UNFCCC? One can see several possibilities. The members of the new agreement are likely to meet at least several times this coming year. The developing country parties will not want to break away from the UNFCCC entirely, so at a minimum they will report on their activities at the mid-year meetings in June in Bonn, and at the next COP in Mexico in November. The members of the accord, however, are unlikely to want to get tangled up in the subsidiary bodies and plenaries of the COP. They will not give the obstructionists that leverage.

That poses a dilemma for those still hoping for an extension of the Kyoto Protocol, both those who want that for the best of reasons, and those who play the game to block any real progress. The existing convention has, at best, one last chance to get its act together. That will require transforming itself into a functional body, capable of overcoming rogues and obstructionists and capable of making practical, timely decisions. And it cannot succeed by trying to compete with the Copenhagen Accord. The only way forward for the UNFCCC is to embrace the new agreement wholeheartedly. Otherwise, the UNFCCC will wither away.

6. *The Copenhagen Accord won’t move the Senate.*

The quick conventional view that the Copenhagen agreement is weak suggested the quick conventional view that it will not change the calculus of the Senate. I disagree. It is not weak, and it will change the Senate.

The Copenhagen Accord delivers the two principal things that swing Senators have demanded from the international process: meaningful commitments to reducing the emissions of key developing countries, and a transparent framework for evaluating their performance against those commitments. When President Hu announced that China would adopt a carbon intensity target at the UN this fall, many Senators were impressed. The focus then shifted to questions of reliability: how can we be assured that China and other countries will do what they say. This is why President Obama insisted so strongly that transparency had to be part of the accord. As a matter of substance, the differences between the U.S. and China were not that difficult to bridge. But the U.S. push begat a Chinese pushback, as questions of national honor and sovereignty came into play. Several times this year and during the first 13 days of the COP, word went round that the two countries were close to agreement on language, and then lines hardened again. The U.S., joined by the EU and Japan, kept pressing reasonable demands for energy and emissions statistics and a process for raising questions where data was unclear or deficient. The U.S. also offered China assistance, through a bilateral EPA-NDRC agreement, on improving emissions inventory methods. China also began to feel pressure from smaller developing countries that did not want to lose the opportunity for significant adaptation, forest protection, and clean energy resources.
As I have described [here](http://climatechangepsychology.blogspot.com), the breakthrough came on Thursday, when U.S. Secretary of State Clinton offered a proposal for expanded long-term public and private assistance, and when Chinese Vice Foreign Minister He offered an opening to international dialogue and cooperation in review of national emissions and energy data. Chinese Premier Wen Ji Bao repeated this key offer in the opening statement of the leader’s summit.

It still took the two leaders the rest of the day to personally work out acceptable language that incorporated both respect for sovereignty and suitable transparency. The story of the meetings between Obama and Wen has been told elsewhere. Late in the day, they worked out the artful phrases in paragraph 5 of the Copenhagen Accord:

[Emphasis added]

> [Emissions mitigation actions by developing countries,] including national inventory reports, shall be communicated through national communications consistent with Article 12.1(b) every two years on the basis of guidelines to be adopted by the Conference of the Parties. . . . Mitigation actions taken by Non-Annex I Parties will be subject to their domestic measurement, reporting and verification the result of which will be reported through their national communications every two years. Non-Annex I Parties will communicate information on the implementation of their actions through National Communications, with provisions for international consultations and analysis under clearly defined guidelines that will ensure that national sovereignty is respected. . . . [S]upported nationally appropriate mitigation actions [i.e., actions supported by international financial assistance] will be subject to international measurement, reporting and verification in accordance with guidelines adopted by the Conference of the Parties.

This language has something for all sides. The U.S. wins regular biennial reporting of developing country emissions inventories and other data – something China has previously provided only once – and a transparency procedure effectively equivalent to the review that developed countries already undergo. China and India win respect for sovereignty and a verbal distinction between “international consultations and analysis” and “verification,” a politically-charged term in their domestic political contexts.

Obama’s success on developing country targets and transparency will have important implications in the Senate. It should give swing Senators the assurance that U.S. is not acting alone, without the emerging economies. As E&E Daily reports (subscription required):

> “Home run,” said Mark Helmk, a top staffer to Sen. Richard Lugar (R-Ind.), the ranking member of the Foreign Relations Committee. “Satisfied the Europeans. Made China into a major world player, but made them accountable. Elevated India, Brazil and South Africa to world stage. Cut an important side deal with Russians on arms control.”

Together with tools already in the bills to address concerns about China from manufacturing industries and labor, the formula is there for legislative success.

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So give up the sour and grudging reviews. The Copenhagen Accord is a significant breakthrough that signals a new era of effective cooperation between all major emitters, and opens the door to finally enacting U.S. climate and energy legislation next year.

Tags: brazil, china, climate negotiations, cop15, copenhagen, copenhagen accord, globalwarming, india, obama, south africa, sudan, tuvalu, UNFCCC, united states, venezuela

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**Comments (Add yours)**

**Tenney Naumer** — Dec 22 2009 10:16 AM

Dear Mr. Doniger,

I must take great exception to your reasoning in point 1. "Paragraph 12 calls for a review of the science by 2015, and consideration of a more protective target of 1.5 °C."

You are specifically talking about a delay of more than 5 years, merely to have a review and consideration.

Sir, the science say that today, right now, we are in tipping points, possibly leading to "points of no return," as described by James Hansen.

We must do everything possible from now until the foreseeable future to stop emissions, and develop efficient and cost-effective means to draw down the CO2 already in the atmosphere.

We must do this not only to lower global mean temperatures, but to save the oceans, without which none of us can survive.

Sincerely,

Tenney Naumer, M.Acc., M.B.A.
blog: Climate Change: The Next Generation
[http://climatechangepsychology.blogspot.com](http://climatechangepsychology.blogspot.com)
e-mail: apaixonada.por.rio@gmail.com

**Quentin Prideaux** — Dec 22 2009 11:01 AM

Completely disappointing performance by Doniger on On Point just now. I am a member of NRDC, and 350 (and UCS, EDF, Nature Conservancy, etc etc), and I used to think that people like 350 were a side show to the giants NRDC, now I think it's the other way round. Doniger seemed completely compacent about the issue he's supposed to be driving, and dismissive of the fantastic work being done by 350. Doniger is not going to make ANY progress if the millions motivated through 350 don't also do their work. He should be on his knees thanking Bill McKibben for everything he does because it makes Doniger's work marginally feasible, rather than attempting to sideline him as a self-pittier (!). If this wasn't urgent we wouldn't care. It is urgent, and Bill McKibben recognizes that a lot more than Doniger.

**Steve Johnson** — Dec 22 2009 11:54 AM
This apologist post really saddens me.
What happened to the NRDC that used to tell the truth, run hard political campaigns and lead the movement? Donniger and the rest of the climate team do little more than parrot the Democratic leadership, then use their media reach to shore up the Dems when reporters, scientists, and environmentalists point out how terribly weak the U.S. policy is in the House, Senate and Copenhagen.
You say: "The U.S. is ready to act, and though its pending legislation calls for aggressive emission cuts after 2020, it starts somewhat slowly." David, you know full well that virtually all climate scientists, the IPCC, and most environmental groups believe the legislation is far too weak to stop global warming.
Note to Francis, your climate team is peopled by policy wonks with no stomach for a fight, no understanding of how to run a legislative campaign, no respect for science and little desire to lead. They are turning NRDC into a junior Environmental Defense Fund, endless gaming to ingratiate itself with whatever party is in power. Is that what you really want for NRDC?

Michael Johnson — Dec 22 2009 12:02 PM
Why is NRDC so afraid to criticize Obama and House/Senate Democrats? They will never improve their policy if they know NRDC will always endorse them no matter how weak they are.
For a more realistic understanding of what happened in Copenhagen and what is needed now see 350.org, Friends of the Earth, Greenpeace, and the Center for Biological Diversity. These people follow the science, apply political pressure, push hard where it is needed most.

David Doniger — Dec 23 2009 02:42 PM
Friends, I respect your views, but we call 'em as we see 'em. The worst thing about this is that if those who should be allies do the usual circular firing squad, the friends of the status quo will win.

Celia Alario — Dec 23 2009 06:27 PM
Excuse me? Are you on crack sir? I'd much rather have been at the COP 15 in your parallel universe of non-reality than the one I was at. So much of what you said is just plain wrong, but I will let most of that sit and call out your blatant racism and absurdity on a few fronts: your attack on Bernarditas de Castro Muller is just plain rude and also disrespectful (if she was a white man would you have the nerve to do the same?) She isn't an 'obstructionist' she has instead been one of the FEW GUARDIANS of procedural consensus process at the UN, in her previous role as HEAD of the G77 and now as a member of Sudan's delegation, where the new head of the G77 placed her after her home country kicked her off their UN delegation after pressure from the EU.
If keeping the spirit of the UN consensus process alive and knowing the process better than the US and UK delegates (who repeatedly searched for ways to ram the agreement through without consensus in the wee hours of Saturday AM) is considered obstructionist by NRDC you might as well just shut your doors.
I'm not going to dignify your blog by wasting more time to refute it other than to mention that if you'd been keeping up with your IPCC reading you'd know that there is a multiplier effect for Africa. 2degrees anywhere else means 2.5 to 2.8 and that has been documented to mean massive famines, lack of water etc. To trash Ambassador Lumumba (Sudan) as if he was somehow exaggerating etc is again, to belittle him at best, racist at worst.

David Doniger — Dec 23 2009 06:58 PM
Celia, I think you missed the memo about "civil conversation." I reject the charge of racism and sexism. Regarding the delegates you mention, my comments are based solely on their words and deeds, nothing else. See their comments for yourself on the recording of the all-night debate on the UNFCCC website.

Celia Alario — Dec 24 2009 09:18 AM
David I don't need to check the recording I WAS THERE. I also spoke directly to delegates during the 90+ minute 'procedural break' about what they were looking for and had a UK delegate admit openly that the break was to look for a 'work around' the UN policy which prevents the adoption of the accord without a consensus. I also watched the entire time from when they reconvened until they closed the session on Saturday.

Craig Oren — Dec 24 2009 03:48 PM
David,
I am encouraged that you think the Copenhagen accord represents progress. I'm sure you'd agree that it's not what any of us would ideally want. Given the failure of the Senate to pass a bill, it's probably the most the United States could have gotten. You have always been a straight shooter and dedicated environmental advocate in the over thirty years I have known you, and so I have great respect for your views.

DontLike NRDC — Dec 24 2009 04:07 PM
Craig, David may very well be a nice person and worthy of respect in your eyes, but he's part of an organization that is conniving us, and thus he's complicite with the con, and so I would disagree with you. The accepted belief that we must be pragmatic and settle for a minimum that will pass mustard with the Senate is all too convenient when NRDC comfortably greenwashes the very companies that happily support anti-environmental Senators and other politicians.
Sincerely, DontLikeNRDC@mail.com

Prasad Kasibhatla — Dec 26 2009 09:20 AM
Great post and very insightful analysis. A couple of thoughts -
- I am hopeful that the Copenhagen accord will move the Senate sufficiently to pass domestic legislation. If that happens, I think it will further move the Senate to ensure 67 votes for verifying an international treaty which includes the other major emitters.
- Re the 2C limit, the emissions reductions required depend significantly on the what degree of certainty we would like to ensure in meeting this goal and what happens post-2020. The current commitments are in fact consistent with a 50% probability of meeting the goal, and this probability can be increased depending on how aggressively emissions can be reduced post-2020.
gato — Dec 27 2009 12:30 AM
Good analysis. It's good to point out the progress made. Many of us would like more to be done, but we have to remember that real action will need to take place at home. International agreements are only effective when you implement them with domestic support. Obama needs congressional support to get the changes implemented. Even though we may not like it, the US system is designed for incremental changes, and not overnight revolution. Some might prefer the Chinese system, where Party leaders decide everything, but it doesn't work that way in the US. Resistance to environmental reform is just as real and grass-roots as support for environmental reform. Those holdouts in the Senate and House do represent the views of many voters. Environmental activists have to convince them by persuasion, and it will take time, something which we do not have enough unfortunately.

Ken Johnson — Dec 28 2009 01:29 PM
Establishing 2 deg C max as an internationally recognized and accepted objective is itself a significant accomplishment. Pushing for 1.5 deg is pointless unless and until 2 deg is in sight. But focusing on legally binding emission targets is also counterproductive unless those targets are in range of the 2 deg objective. I think a more constructive policy approach -- both domestic and international -- would focus less on targets and more on actions.

Targets could be used to establish minimal requirements (i.e. a backstop), but the problem is that once you set a target it is interpreted as a maximal and sufficient requirement. Once we hit the target, we're done: "Mission accomplished." The federal cap-and-trade legislation, in particular, is constructed to ensure that its reduction target is not exceeded. For example, EPA regulation of vehicle emissions will provide no environmental benefit under cap-and-trade because any resulting emission reductions in capped sectors will merely allow greater emissions elsewhere (e.g. from coal combustion).

I think Copenhagen has made it clear that strong and effective domestic policies -- especially in the United States -- will be a prerequisite to effective global action, not vice-versa; and I think that strong sectoral, state and local policies are a prerequisite to effective federal action. The principle of "common but differentiated responsibilities and respective capabilities" applies to domestic as well as international regulatory policy, and argues against economy-wide policies that neglect sectors' differentiated responsibilities and capabilities. (For example, existing fuel-saving incentives in the transportation sector are about ten times greater than the projected carbon-price incentive under cap-and-trade. Creative financing mechanisms could be much more effective than carbon pricing for transportation policy.)

We need to get away from the "least-effort" regulatory paradigm underlying cap-and-trade and adopt a "best-effort" approach that is responsive to the realities of the 2 deg objective. Actions speak louder than "targets".

Cymie Payne — Dec 28 2009 02:06 PM
Nice analysis and an interesting eyewitness account. A comment:
Despite the deadlock within the UNFCCC, the UN is well-placed as the climate change administrative body. Collecting national reports; coordinating NAMAs, markets and adaptation activities; and facilitating standardization of monitoring are all things that the climate secretariat can do well. Some of these activities, like reporting, can be carried out under the Framework Convention: China has already provided its first national communication voluntarily and the Annex I countries have generally been compliant with their reporting obligations under the Convention (see unfccc.org to get their national communications).

The UN is also the only body that gives voice to the smallest, weakest states. For both these reasons, it is well worth the effort to keep the UN as a central forum for work on climate change.

How the underwhelming Copenhagen accord could yet turn into a useful document
FACED with the undoubted grandeur of climate change, a grand response seems in order. But, to the immediate disappointment to most of those participating and watching, the much anticipated UN climate conference held in Copenhagen in December led to no such thing.

Initial ambitions for a legally binding agreement with numerical targets for big emitters had already been abandoned in favour of a “politically binding” deal in which developed and developing countries would commit themselves to numerical targets to cut emissions. In the event a few countries produced a short “accord” that sets down no specific limits for future emissions beyond those
that its signatories volunteer (see article)—and the commitments they have made so far do not look tough enough to limit the rise in
temperature to 2°C above pre-industrial levels, the widely accepted boundary beyond which scientists do not recommend going.
Hardly a grand response. Yet the Copenhagen accord is not the disaster that it at first appears. On two issues in particular the
Copenhagen conference may yet mark the beginning of a new way forward.
First, the UN’s climate process has for more than a decade been bedevilled by a binary split between developed and developing
countries. Under the Kyoto protocol, only developed countries committed themselves to cutting emissions; developing countries made
no such promises. That was the main reason why Kyoto failed, because America would not accept a treaty that required nothing of
countries such as China, and China insisted that the rich world should bear most of the necessary costs of constraining emissions. At
Copenhagen developed countries were determined to move beyond this structure; many developing countries to hang on to it. That
was the obstacle on which the conference foundered.
Yet the Copenhagen accord makes some progress towards closing this split. Developing, as well as developed, countries signed up to
it, and have agreed to an international role in monitoring any cuts they commit themselves to. That is a crucial concession.

More than they can chew
The second reason for hope is that Copenhagen’s failure may have encouraged the development of political structures better suited to
the challenge. Climate change is not just an unusually grand problem. It is also an unusually complex one, which crosses and
confounds the boundaries that normally define our world; from farming to forestry, shipping to sovereignty, all sorts of interests are
brought together in new ways that demand new actions. Trying to deal with all the sources of the many gases involved in a single set
of negotiations, in a forum of 193 countries, was always a tall order.
The Copenhagen accord edges towards allowing negotiations to take place in new forums. Some of its provisions, notably on
mechanisms for funding mitigation efforts in developing countries, can take effect outside the UN process. That could mark a new
pluralism in climate politics, allowing coalitions of the willing to form for specific purposes—such as slowing deforestation, or
stemming emissions from shipping.
There are risks to slicing up the problem into smaller pieces. Bundling everything together, so that all parties need to offer some give
in order to get their take, is a time-honoured format for negotiations; and stepping back from doing everything in one forum may mean
doing less overall. But the world has twice, at Kyoto and at Copenhagen, tried to deal with the problem in one go, and failed. Smaller
groups such as the G20 or the Major Economies Forum offer a better prospect for haggling over difficult issues. The UN process still
has a role, in ensuring a workable and trusted system of accounting for carbon, and in debating and approving or rejecting agreements
whose details will largely be worked out elsewhere.
Many problems lie ahead—and not just as a result of Copenhagen’s failures. The main danger lies in the American
Senate, which at some point over the next few months will decide whether to approve or reject legislation to set up a cap-and-trade system to put a
price on carbon. That will have more impact than any international conference, including Copenhagen, on the future levels of
greenhouse-gas emissions. But global negotiations will need to continue—and the participants need to learn one useful lesson from
Copenhagen. Climate change is too big a problem to be swallowed in a single bite. Smaller groups, dealing with more manageable-sized chunks, have a better chance.

Clean technology after Copenhagen
Waiting for a green light
Dec 30th 2009 | BERLIN AND SAN FRANCISCO
From The Economist print edition

Business comes to terms with a disappointing outcome
SO KEEN were many energy and clean-technology executives to see a robust agreement to cut emissions of greenhouse gases emerge
from December’s climate summit that thousands of them trekked to Copenhagen to cheer policymakers on. It was to no avail: the
participants failed to agree on a global mechanism to put a price on emissions, making it harder for energy firms to justify big
investments in unproven green technologies, such as advanced biofuels or carbon capture and storage. “Almost all areas of clean
technology will get a little less investor interest because there is no mandate,” predicts Vinod Khosla, a prominent venture capitalist.
Clean-tech executives were encouraged by commitments to improve energy efficiency made by India and China, as well as a promise
by rich countries to funnel billions to poor ones to pay for green investments. Many shrug off events in Copenhagen on the grounds
that national, regional and local regulations are the main drivers of clean-tech investment, not international deals. Paul Holland of
Foundation Capital, a venture firm, points out that many municipalities in America have promised to reduce carbon emissions to 1990
levels. This is driving strong demand for smart grids, green building materials and the like. Many states have green initiatives too.
A recent survey of big investors in Europe by Jefferies, an investment bank, has found that they, too, believe sustained national
support for clean-tech industries matters more than an international deal on climate. Clean-tech investment is also driven by concerns
about the security of energy supplies, says Bruce Huber of Jefferies. In Germany, which has generously subsidised renewable energy,
big firms such as Siemens have stressed they will press ahead with their ambitious plans to invest in greenery in spite of the
disappointing outcome at Copenhagen.
Yet there are some signs of green fatigue even in as environmentally minded a place as Germany. Before the Copenhagen meeting Wulf Bernotat, the boss of E.ON, a giant German power company, said that if the summit delivered a firm commitment to cut emissions, his firm would be willing to accelerate a plan to cut its carbon emissions to half of their 1990 level by 2030, by bringing the deadline forward to 2020. Since the Copenhagen meeting ended, Mr Bernotat has backed away from the idea, citing the need for greater co-ordination among governments. “This will depend on further progress not only at the UN level, but also on the reaction of the European Union and the different national governments, not only in Europe,” he said.

Some clean-tech executives give warning that companies need to lobby harder for a global emissions deal rather than pretending that getting an agreement doesn’t really matter. “Policymakers hear a lot from the NGO community and from environmental activists, but not from companies,” says Amit Chatterjee, the boss of Hara, an American firm that produces software that helps clients reduce their energy use. It is time that changed.

Climate change after Copenhagen
China's thing about numbers
Dec 30th 2009 | COPENHAGEN
From The Economist print edition

How an emerging superpower dragged its feet, then dictated terms, at a draining diplomatic marathon

AMID the alphabet soup and baffling procedures of last month’s climate-change conference in Copenhagen, it was easy to forget the overall aim: to move from a world in which carbon dioxide emissions are rising to one in which they are falling, fast enough to make a difference.

How fast is enough? A fair measure is carbon and other greenhouse emissions in 2050; if by that date they are only half their 1990 level, most people agree, then things would be on the right track. Another widely accepted calculation: if developing countries are to grow a bit between now and then, rich countries would need to slash emissions to a level at least 80% below what they were in 1990. Many prosperous states have duly accepted that target; and in recent years the expression “80% by 2050” has become a familiar, if optimistic, touchstone for discussions about climate change—both in the rich world and among most other parties to the UN Framework Convention on Climate Change (UNFCCC).

When drafts of a last-ditch agreement began circulating on December 18th, which should have been the meeting’s final day, the “80% by 2050” formula was still in place. But, hours later, it vanished. By this stage, efforts to find consensus among almost 200 delegations had given way to bargaining sessions among smallish groups of countries behind closed doors. When the fruits of that back-room trading were presented to the world by Barack Obama, the numbers were conspicuous by their absence.

So too were a number of other conditions that Europeans and others would have liked, such as a date for peak emissions. “Why?”, a cluster of journalists asked Lars-Erik Liljelund, the Swedish government’s point man on climate, in the early hours of Saturday December 19th. Why would a pledge that applied only to rich nations, and to which all those nations seemed to agree, have vanished from the final document? After maybe ten seconds of what-can-I-say silence came the flat reply: “China don’t like numbers.” This is not entirely true. President Wen Jiabao’s speech to the conference that morning included a lot of numbers. There had been 51% growth in China’s renewable-energy output over the three years to 2008; China had planted 20m hectares of forests between 2003 and 2008; developed countries had produced 80% of emissions over the past 200 years; and so on. The numbers that China had resisted were those that could be read in any way as commitments. It had insisted on stripping all figures, even ones that did not apply to China, out of the text that finally became the Copenhagen accord.

In their zeal to avoid being pinned down, the Chinese went further. They secured the removal of language contained in early drafts that spoke of a Copenhagen deal as a step on the road to a legally binding treaty. As the world’s largest emitter (without which any agreement is dead), China was in a strong position, and it took full advantage.

Such was the messy denouement of ten days of largely fruitless UN-guided negotiations, in which China did nothing to push things along. Indeed, some suspected China of doing something worse than just folding its arms. The atmosphere was poisoned, early in the meeting, by the leaking of a draft (one of several texts circulated by the Danish chair) that favoured the rich world; various parties thought the Chinese were the leakers.

On the final day, tension rose when President Obama was obliged to conduct negotiations with comparatively junior Chinese delegates. At one point, Mr Obama expected to meet his Chinese opposite number one-on-one but instead found himself with the leaders of South Africa, Brazil and India as well. All that said, China also gave some ground. It satisfied the Americans on one sticking-point: the principle of “monitoring, reporting and verification” of actions promised by developing countries. Unless China, in particular, can be shown to live up to its promises, it will be very difficult to get a climate bill through America’s Senate. To Mr Obama’s relief, the accord allows for an international role in such monitoring, which China and India had been resisting. This is not just an academic point; China has pledged a reduction, of between 40% and 45% by 2020, in the level of its “carbon intensity”—the amount of carbon emitted in proportion to output. It is hard to tell how big a change the Chinese promise represents from business as usual; but it has an impressive ring.

Among the accord’s other features were a new system for recording pledges on emission reduction and other actions; a review of those commitments, due in 2015; and an as yet undefined mechanism for North-South technology transfer. And there is money on the
Agriculture and climate change

Why farms may be the new forests
Dec 30th 2009
From The Economist print edition

In the war against climate change, peasants are in the front line

FOR people who see stopping deforestation as the quickest climate-change win, Copenhagen seemed a success. Although there is still work to be done on the initiative known as REDD (Reducing Emissions from Deforestation and Forest Degradation), the deal struck in Copenhagen made it into a real thing, not just an idea. The notion of reducing net deforestation to zero was not explicitly mentioned, but it looks much more credible than it did two years ago.

As well as giving heart to the protectors of trees, this outcome is encouraging for people whose focus is not on forests but on fields. Climate and agriculture matter to each other in several ways. On the downside, farming is a cause of deforestation, and also emits greenhouse gases. On the upside, agriculture can also dispose of heat-trapping gases, by increasing the carbon content of soils.

And because farmers (unlike say, coal-producers) feel the effects of the changes their activities may be causing, they have a role in adapting to climate change. Farms, particularly marginal ones, are the first to suffer when the climate shifts; increase their resilience and you help a lot of people. Whether the aim is adaptation to climate change or slowing it, there is an obvious need for more research on the benign contributions that agriculture can make. For people who are seized of this need, there was a welcome boost on December 16th when 21 countries pledged $150 billion to a Global Research Alliance on Agricultural Greenhouse Gases. One of the attractions of a focus on agriculture is that even poor countries have farms; in some cases credits for carbon newly locked away in their soil may be a more plausible way of attracting money than rewards for low-carbon industrialisation. A more remote possibility is that such countries will earn credits by hosting efforts to pump carbon dioxide out of the air and store it away.
Such “geoengineering” is still seen as far-fetched and in some circles misguided, but a reference to it was made in the Copenhagen documents. It was cited as a possible future direction for the Clean Development Mechanism, which provides credits for carbon-saving projects in poorer countries. In the aftermath of negotiations with a hint of slash-and-burn, new seeds may be taking root.

12/22/09
Yale Environment 360

This week at Yale Environment 360, author and climate activist Bill McKibben and environmental journalist Fred Pearce offer their assessments of what was — and wasn’t — accomplished at the Copenhagen climate summit. For McKibben, there was little, if anything, to cheer about. The conference, writes McKibben, was largely a charade, as major nations — most notably the U.S. and China — refused to make meaningful commitments to reduce greenhouse gas emissions or even to engage in an honest discussion of the consequences of failing to act. While voicing support for holding future temperature increases to 2 degrees Celsius, the big players at the conference — by refusing to take serious action — have committed the world to at least 3 degrees C of warming, says McKibben. Giving voice to discouragement felt by many environmental activists after Copenhagen, McKibben writes, “It’s possible... that having been warned about the greatest danger we ever faced, we simply won’t take significant action to prevent it.” Read his article.

Pearce was also disheartened by much of what he witnessed in Copenhagen, and worries that the gaping loopholes in the so-called Copenhagen Accord and the Kyoto Protocol will lead to steady increases in carbon dioxide emissions for a decade or more. But Pearce is heartened that United Nations climate negotiations, however flawed, will at least continue, with the possibility that a tougher agreement may still be forged. Having covered climate talks since the 1992 Earth Summit in Rio de Janeiro, Pearce says he is amazed at how much progress has been made, with nations seriously discussing reducing CO2 emissions by 50 to 80 percent by mid-century. Another cause for optimism, writes Pearce, is the rapid spread of renewable energy technology, which he says may do more than any international negotiation to head off the worst effects of global warming. Read Pearce’s analysis.

Opinion

Copenhagen: Things Fall Apart and an Uncertain Future Looms

The Copenhagen summit turned out to be little more than a charade, as the major nations refused to make firm commitments or even engage in an honest discussion of the consequences of failing to act.

by bill mckibben

It’s possible that human beings will simply never be able to figure out how to bring global warming under control — that having been warned about the greatest danger we ever faced, we simply won’t take significant action to prevent it. That’s the unavoidable conclusion of the conference that staggered to a close in the early hours of Saturday morning in Copenhagen. It was a train wreck, but a fascinating one, revealing an enormous amount about the structure of the globe.

Let’s concede first just how difficult the problem is to solve — far more difficult than any issue the United Nations has ever faced. Reaching agreement means overcoming the most entrenched and powerful economic interests on Earth — the fossil fuel industry — and changing some of the daily habits of that portion of humanity that uses substantial amounts of oil and coal, or hopes to someday soon. Compared to that, issues like the war in Iraq, or nuclear proliferation, or the Law of the Sea are simple. No one really liked Saddam Hussein, not to mention nuclear war, and the Law of the Sea meant nothing to anyone in their daily lives unless they were a tuna.

Faced with that challenge, the world’s governments could have had a powerful and honest conversation about what should be done. Civil society did its best to help instigate that conversation. In late October, for instance, The most important nations chose not to go the route of truth-telling.

350.org — the organization of which I am a founder — held what CNN called the “most widespread day of political action in the planet’s history,” with 5,200 demonstrations in 181 countries all focused on an obscure scientific data point: 350 parts per million (ppm) of CO2, which NASA scientists have described as the maximum amount of carbon we can have in the atmosphere if we want a planet “similar to the one on which civilization developed, and to which life on Earth is adapted.”

In fact, that kind of scientific reality informed the negotiations in Copenhagen much more thoroughly than past conclaves — by midweek diplomats from much of the world were sporting neckties with a big 350 logo, and 116 nations had signed on to a resolution making that the dividing line. A radical position? In one sense, yes — it would take the quick transition away from fossil fuels to make
it happen. But in another sense? The most conservative of ideas, that you might want to preserve a planet like the one you were born onto.

From the beginning, the most important nations chose not to go the route of truth-telling. The Obama administration decided not long after taking office that they would barely mention “global warming,” instead confining themselves to talking about “green jobs” and “energy security.” Perhaps they had no choice, and it was the only way to reach the U.S. Senate — we’ll never know, because they clung to their strategy tightly. On Oct. 24, when there were world leaders from around the globe joining demonstrations, they refused to send even minor officials to take part. Instead, they continued to insist on something that scientists kept saying was untrue: The safe level of carbon in the atmosphere was 450 ppm, and their plans would keep temperature from rising more than 2 degrees Celsius (3.6 F) and thus avoid “catastrophic consequences.” (Though since 0.8 degrees C had melted the Arctic, it wasn’t clear how they defined catastrophe).

In any event, even this unambitious claim was a sham. That’s strong language, so here’s what I mean. Thirty-six hours before the conference drew to a close, a leaked document from the UN Secretariat began circulating around the halls. It had my name scrawled across the front, not because I’d leaked it but apparently because it confirmed something I’d been writing for weeks here at Yale Environment 360 and elsewhere: Even if you bought into the idea that all we needed to do was keep warming to 2 degrees C and 450 ppm, the plans the UN was debating didn’t even come close. In fact, said the six-page report, the plans on offer from countries rich and poor, if you added them all up, would produce a world where the temperature rose at least 3 degrees C, and carbon soared to at least 550 ppm. (Hades, technically described). It ended with a classic piece of bureaucratic prose: Raising the temperature three degrees, said the anonymous authors, would “reduce the probability” of hitting the two degree target. You think?

The document helped make already-suspicious vulnerable nations even more suspicious. Remember: The reports from the Intergovernmental Panel on Climate Change have made it clear that a two-degree temperature rise globally might make Africa 3.5 degrees C hotter. Almost everyone

thinks that even 450 ppm will raise sea level enough to drown small island nations. There wasn’t much solace in the money on offer: $10 billion in “fast start” money for poor nations (about $2.50 a head — I’d like to buy the world a Coke) and an eventual $100 billion in annual financial aid that U.S. Secretary of State Hillary Clinton promised when she arrived on Thursday morning. Even if that money ever materialized (Clinton couldn’t say where it would come from, except “special alternative financial means”) it wouldn’t do much good for countries that weren’t actually going to exist once sea levels rose. They were backed to the wall.

And so, they squawked. They didn’t knuckle under quite as easily as usual, despite the usual round of threats and bribes. (One island nation left a meeting with the U.S. fearing for its International Monetary Fund loans; one African nation left a meeting with the Chinese hoping for two new hospitals if only it would toe the line.)

This annoyed the powerful. When President Obama finally appeared on Friday, his speech to the plenary had none of the grace and sense of history that often mark his words — it was an exasperated and tight-lipped little dressing-down about the need for countries to take “responsibility.” (Which might have gone over better if he’d even acknowledged that the United States had some special historical responsibility for the fix we’re in, but the U.S. negotiation position all along has been that we owe nothing for our past. As always, Americans are eager for a fresh new morning). In any event, it didn’t suffice — other nations were still grumbling, and not just the cartoonish Hugo Chavez.

In fact, the biggest stumbling block to the kind of semi-dignified face-saving agreement most people envisioned was China. According to accounts I’ve heard from a number of sources, Obama met with 25 other world leaders after his press conference for a negotiating session. It was a disaster — China turned down one reasonable idea after another, unwilling to constrain its ability to burn coal in any meaningful way (and not needing to, since power, especially in any non-military negotiation, has swung definitively in its direction).

In the end, things were clearly coming apart, so a non-face-saving pact was quickly agreed between China, India, and the U.S., with South Africa added for reasons you can guess at. In any event, this cartel of serious coal-burners laid out the most minimal of frameworks, and then Obama set off for the airport.

Eventually, sometime around dawn, some of the poorest nations signed on to “save a place at the table,” though clearly it will be at the children’s table. (And the Sudan did its best to remind everyone why the UN process can be so trying, comparing the agreement to the Holocaust). The Guardian quickly declared the whole thing a Failure, in large point type, followed by most of the world’s other newspapers, though the American press was a little kinder. Kumi Naidoo, the wonderful head of Greenpeace International, said Copenhagen was a “crime scene.” The leaders of the global youth movement gathered under the Metro station outside the Bella Center to chant: “You’re wrecking our future.”

James Hansen, the great climate scientist who started the global warming era with his 1988 testimony before the U.S. Congress, and whose team provided the crucial 350 number that now defines the planet’s habitability, refused to come to Copenhagen, predicting it would be a charade. He was correct. On Sunday he predicted a greater than 50 percent chance that 2010 would be the warmest year
ever recorded. If you want to bet against him, you can. If you want to argue that this non-agreement will help Obama get something through Congress, it’s possible you’re right. If you want to despair, that’s certainly a plausible option.

I’d like to go home and sleep for a while. The new world order is going to take a little while to figure out.

POSTED ON 21 DEC 2009 IN

ABOUT THE AUTHOR
Bill McKibben is a scholar in residence at Middlebury College and has been writing about the Copenhagen climate conference for *Yale Environment 360*. His *The End of Nature*, published in 1989, is regarded as the first book for a general audience on global warming. He is a founder of 350.org, a campaign to spread the goal of reducing atmospheric carbon dioxide to 350 parts per million worldwide. His most recent book is *American Earth*, an anthology of American environmental writing. In previous articles for *Yale Environment 360*, he has written about the threat of passing planetary boundaries and how the world will once again be waiting on the U.S. at the Copenhagen climate talks.

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Click here for more coverage of the climate talks.

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Looking for a Silver Lining in the Post-Summit Landscape

Much was left undone in Copenhagen, and the many loopholes in the climate accord could lead to rising emissions. But the conference averted disaster by keeping the UN climate negotiations alive, and some expressed hope that the growth of renewable energy technology may ultimately save the day.

The Copenhagen Diagnosis: Sobering Update on Climate

On the eve of Copenhagen, a group of scientists has issued an update on a 2007 IPCC climate report. Their conclusions? Ice at both poles is melting faster than predicted, the claims of recent global cooling are wrong, and world leaders must act fast if steep temperature rises are to be avoided.

Opinion
Looking for a Silver Lining in the Post-Summit Landscape

*Much was left undone in Copenhagen, and the many loopholes in the climate accord could lead to rising emissions. But the conference averted disaster by keeping the UN climate negotiations alive, and some expressed hope that the growth of renewable energy technology may ultimately save the day.*

by fred pearce

Did British climate secretary Ed Miliband save the planet early on the final Saturday of the Copenhagen conference? It sounds like a risible claim, especially coming from a British journalist like myself. But hear me out.

At 7 a.m. on Saturday, with the conference 14 hours into overtime, the visibly exhausted and procedurally confused chairman of the summit, Danish Prime Minister Lars Lokke Rasmussen, cast a weary eye over the surviving delegates from an all-night session. After listening to more than 40 speeches from the floor and with dozens more delegates waiting to be heard, Rasmussen said there was no consensus on adopting the draft agreement produced by U.S. President Obama and 25 other heads of state the previous day.

“Therefore I propose that we...” Almost certainly his next words would have been a recommendation to drop or delete the text.

The rejection of what was already known as the Copenhagen Accord would have been a catastrophic failure for both climate diplomacy and the climate. The United Nations process to fight climate change, set in train at the Earth Summit in Rio 17 years before, would have lain in tatters. The climate equivalent of the collapse of the world trade talks — the “Doha-isation of climate,” as one journalist quipped — would have reverberated for years, unleashing accelerating emissions of greenhouse gases and who knows what climatic tipping points in future years.

Then up spoke Ed Miliband, younger brother of the more famous British Foreign Secretary, David Miliband. “Point of order,” he called from the floor, and asked for an adjournment of the meeting. Rasmussen looked like a drowning man saved.
When the meeting resumed three hours later, with Rasmussen safely tucked in bed and diagnosed as “exhausted” by UN Secretary-General Ban

The accord was a flawed diplomatic triumph. But a triumph for the planet? Not so fast.

Ki-moon, a procedural formula had been devised. A new chairman moved that the meeting “take note of the Copenhagen Accord,” with those agreeing to it able to add their names to its title and make pledges to stem their rising carbon dioxide emissions. The many critics of the leaders’ draft agreement, mostly in Latin America and Africa, were assuaged. The gavel fell. The accord was saved. Wild applause broke out.

The deadline for signing up to the Copenhagen Accord is February 1. Developing nations among the signatories will then also be able to dip into a “climate fund” created by the U.S. and other rich nations as part of the accord. The fund will begin with $10 billion a year and, if all goes according to their promises, will contain $100 billion a year by 2020.

It may seem a bizarre way to conduct business. But had Miliband not prevented Rasmussen from finishing his sentence, the accord would have had no UN status, countries would not have been asked to commit to emissions cuts, and the climate fund would have been stillborn. Other ways may have been found to achieve some of the same ends. Money usually talks. But the legitimacy of the UN process — the only basis on which most nations agree to participate in action on climate change — would have been lost.

The “noting” of the accord was a victory for climate diplomacy. And a relief to the galaxy of world leaders — Barack Obama, Britain’s Gordon Brown, Germany’s Angela Merkel, Russia’s Dmitry Medvedev, and Brazil’s President Luís Inácio Lula da Silva, among them — who, hours before, had prematurely claimed their work was done when they had agreed to the draft among themselves.

Heading for the airport, they failed to realize the anger that leaders not involved would feel about their exclusion from the dealmaking. And, since the accord was merely “noted” by the conference and not adopted, they had been wrong to claim before departure that, in the words of Gordon Brown, “for the first time, 192 nations of the UN have reached agreement on preventing warming beyond two degrees.” They did not. Only a later, legally binding UN treaty — if that can be achieved in 2010 — will accomplish that.

So the accord was a flawed diplomatic triumph. The show is still on the road. But a triumph for the planet? Not so fast. Across the Bella conference center, scientists who had evaded the tight attendance restrictions on observers were crunching numbers. And the scientists were gloomy.

The accord may set a goal to limit global warming to 2 degrees C (3.6 F), but it provides no emissions targets on how that should be achieved. On the basis of the commitments so far informally made by nations — which will be appended to the accord as countries sign it — the best estimates are that it will set the world on track to warming of between 3 and 3.5 degrees C, according to Michiel Schaeffer of the consulting group, ECOFYS, and Niklas Hoehne of Climate Analytics, who provided climate analysis for many nations at the conference.

Why this gap between rhetoric and reality? The first problem is the targets themselves. High hopes that many nations would up their promises in Copenhagen came to nothing. The U.S. would not go beyond its pre-conference promise to cut emissions by 14 to 17 percent from 2005 to 2020 — which more or less wipes out its increases since 1990 — the baseline used by the European Union for its pledge to cut by 20 percent. A European offer to go to 30 percent if others were generous was not activated.

China stuck with its pre-conference pledge to cut carbon intensity — that is, emissions per dollar of gross domestic product — by 40 to 45 percent between 2005 and 2020. That sounds good, but will not be enough to halt rising Chinese emissions. And as Premier Wen Jiabao helpfully told the conference, it is actually slightly less than the 46 percent reduction achieved between 1990 and 2005. So, it is arguably no more than business as usual.

India, Brazil, Mexico, South Africa, and others made similar pledges. It is the first time that developing nations have offered to make cuts in their emissions. But all insisted that the targets, while genuine, were voluntary and would not form part of any legally binding treaty. This was the central standoff throughout a conference characterized by repeated clashes on the issue between the U.S. and China. Hillary Clinton called the international verification and “transparency” of emissions promises, especially from China, a “deal breaker.” And so it proved.

But beyond the targets lies a legal morass over the precise definitions of what the target numbers mean. The text of the Copenhagen Accord contains even more loopholes than the 1997 Kyoto Protocol, say analysts.

The environment group WWF — reaching roughly the same conclusions as Climate Analytics and ECOFYS — calculates that rich-world promises to make cuts of 15 to 19 percent in their collective emissions between 1990 and 2020 could, once the loopholes are taken into account, result in an actual increase in emissions by 4 to 10 percent. Another unpublished assessment by Simon Terry of the
Sustainability Council of New Zealand puts the increase at 2 to 8 percent.

The main loopholes are:

— **Hot air.** The Kyoto Protocol gave Russia and other Eastern European countries rights to emit far more CO2 than they needed because of the collapse of their industries post-1990. They have accumulated large numbers of excess permits — 10.7 billion tons by the time the Kyoto Protocol expires in 2012, according to a European Union study. Potentially these credits, often called “hot air,” can be sold to other countries. The Copenhagen Accord appears to allow the spare credits to be carried forward for sale after 2012. If the EU bought them all to offset emissions between 2013 and 2020, it could achieve even a 30 percent “cut” in emissions without making any actual domestic cuts at all.

— **Carbon offsets.** This is another way in which countries faced with difficult emissions reduction targets can offset them by investing in projects to cut someone else’s emissions. Done well, they allow carbon to be kept out of the atmosphere more cheaply. Done badly, they amount to carbon fraud, writing off emissions via green energy projects that were going to happen anyway. According to WWF, the European Union has already announced plans to make half a billion tons in emissions “cuts” through offsets in developing countries between 2012 and 2020. Other nations could triple that figure, it says.

— **Airline and shipping fuel.** A notable failure of the Copenhagen Accord is the absence of proposals to limit growing emissions from international shipping and aircraft, which do not fall under the umbrella of anyone’s national emissions. Currently that is another loophole of one to two billion tons a year.

— **Forests.** Copenhagen also failed to reach agreement on a plan to allow countries to claim either cash or carbon emissions credits for changes in managing forests to retain carbon. Insiders say the talks faltered because the U.S. and others refused to close a loophole that would allow countries to claim credits for improving things in one part of the country — by planting trees, for instance — while not being held to account for cutting down trees elsewhere within their borders. Unless fixed, another billion tons could slip through this loophole, says WWF.

Countries could close these loopholes before the final hoped-for legally binding agreement is signed. Then again, they might not.

So how could leaders fly out of Copenhagen, often in private jets, claiming success? More particularly why would some seasoned negotiators shrug their shoulders at the failures and insist that some progress was made?

There were two kinds of optimism on display in the final hours of the conference. The first was techno-optimism. Thus U.S. Congressman Edward Markey, co-author of the Waxman-Markey cap-and-trade bill, spoke of a coming “technical revolution” in low-carbon energy systems. “It will be not unlike the telecom revolution,” he said, transforming energy technology worldwide far faster than predicted. “We will do far better than our two-degree goal,” he predicted. With several renewable technologies growing annually by 30 percent, even before the grand plans for “green jobs” in the U.S. and elsewhere, this may not be wishful thinking.

Diplomatic optimists, meanwhile, spoke of the progress they have seen in understanding of climate issues among world leaders. Standing in for his boss, Ban Ki-moon, UN assistant secretary general Robert Orr cited, with evident surprise, the leaders’ “meaningful discussion” of the respective scientific merits of adopting 2 degrees C or 1.5 degrees C as a warming limit.

“These were the most genuine negotiations I’ve ever seen leaders engaged in,” Orr said. Such deals are “usually pre-arranged, pre-cooked,” he added, but not this time.

Such optimism is not necessarily well-placed. After concluding the accord, British Prime Minister Gordon Brown said: “This is the first step we are taking towards a green and low-carbon future for the world. But like all first steps, the steps are difficult.” He would not have known that almost the same words were used by one of his predecessors, John Major, after the Kyoto Protocol in 1997.

Even so, having followed climate talks since the Earth Summit in 1992, I am in many ways amazed at the progress made. It would have been hard to predict back in Rio that within two decades governments would be discussing cutting emissions by 50 or even 80 percent by mid-century. After all, they are talking about dismantling carbon-based energy systems that have underpinned economies since the industrial revolution. The trouble is that the science of climate change has become scarier, too, since 1992, and the threat seems much closer.

For all the travails and disappointment of the last two weeks, it is still possible to be optimistic that the world is approaching a genuine tipping point in how we get our energy. Will it come in time to prevent tipping points in the climate system? Frankly, nobody knows the answer to that.
"Taking Note" of the Copenhagen Accord: What It Means
By Jacob Werksman
Created 12/20/2009 - 19:47

Here is a Q&A on some of the most important legal questions surrounding the Copenhagen Accord.
As the dust settles after a decidedly unconventional climate convention, delegates and experts are turning their attention to the outcome, and what it means for the future of international climate change efforts. Previous COPs typically end with a series of “decisions” that are accepted by unanimous consensus of the delegates (majority vote does not apply to the climate convention), which sets a high hurdle for what can be accomplished.
But this time, history didn’t play out in exactly the same way. Here are some early thoughts on what actually happened at COP-15 in Copenhagen, and what it means from a legal perspective:

**Is the Copenhagen Accord a binding document?**
Not in a legal sense. In fact, the words “legally binding” were conspicuously removed from earlier drafts of the Accord by delegations that aren’t yet ready to enter into a legally binding instrument. But the Accord is “politically binding” on those countries that choose to sign up to it. A number of delegations publically expressed their approval of it during the final Conference of Parties (COP) plenary session. And the Convention Secretariat is setting up a process for governments to associate themselves with the Accord, and the names of their countries will be formally listed alongside the text.

But “politically binding” is not the same as “legally binding.” Politically binding—if anything—means that political consequences will flow from its breach—diplomatic responses, efforts at public shaming, withholding of discretionary funding, etc. In this sense, the Accord can be considered a strong, high level commitment by the countries that have adhered to it, and many groups are choosing to interpret it in this sense.

**But didn’t the COP “adopt” the Copenhagen Accord at COP-15?**
No. The COP “took note” of the Copenhagen Accord. Decisions by the COP require a consensus (if any Party present formally objects to a decision, it can block its adoption). That level of consensus was not possible in this case, and the COP rules don’t enable voting.
While the 25 or so countries that were asked by the COP President to participate in a high level meeting of the “friends of the President” eventually accepted the Accord, at least four Parties spoke out against it (Tuvalu, Sudan, Bolivia, and Venezuela). In any event, COP decisions—even those agreed to by all parties—cannot by themselves legally bind Parties.

**What does it mean for the UNFCCC to “take note” of the Copenhagen Accord?**
“Taking note” of the Accord is a way for UNFCCC parties to formally acknowledge its existence. To quote UNFCCC Executive Secretary Yvo de Boer [1], it “is a way of recognizing that something is there, but not going so far as to associate yourself with it.” However, the decision to “take note” of the Copenhagen Accord does not change the nature of the Agreement; it does not, for example, give it the significance of a COP decision. However, it may give it greater significance than documents that parties submit during COP proceedings, such as those categorized as “miscellaneous” or “informational” (MISC or INF) documents.

During the Plenary, a number of governments in support of the Accord called upon the COP, under Art 7.2(c) of the Convention to: Facilitate, at the request of two or more Parties, the coordination of measures adopted by them to address climate change and its effects, taking into account the differing circumstances, responsibilities and capabilities of the Parties and their respective commitments under the Convention.

This should give the COP a mandate to follow up on the implementation of the Accord.

**I thought I heard officials say the Copenhagen Accord be made “immediately operational.” How is that possible?**
The Accord describes itself as “immediately operational.” Participating countries can, however, only immediately operationalize those parts of the Accord that do not require a COP decision.
For example, the Accord provides that governments will submit more specific country-level commitments and actions in the Appendix 1 and Appendix 2 sections of the Accord. Appendix 1 is intended for “economy-wide emissions targets” for 2020 for Annex-I countries; Appendix 2 for “mitigation actions” by non-Annex I countries. These commitments, which must be submitted by January 31st, 2010, will constitute more specific and significant commitments on the part of the submitting countries. These commitments can become operational immediately.
However, the Accord also “decides” to establish a new “Copenhagen Green Climate Fund” to manage the billions of dollars pledged in Copenhagen. It provides that the Fund will be part of the Convention’s Financial Mechanism. This isn’t possible without a COP decision. Unless the all Parties can agree, at the next COP or later, money raised under the Accord will have to be managed outside the Convention. A plausible argument could be made that since the Accord was adopted as a package, even those aspects of the Accord that would otherwise be immediately operational (such as the 31 Jan 10 deadline) won’t take effect until the other aspects, such as the establishment of the fund, also take effect.

[3]

Stabilizing Climate: Beyond International Agreements

Note: the following was written in July 2009, before the Copenhagen climate change conference. From my pre-Copenhagen vantage point, internationally negotiated climate agreements are fast becoming obsolete for two reasons. First, since no government wants to concede too much compared with other governments, the negotiated goals for cutting carbon emissions will almost certainly be minimalist, not remotely approaching the bold cuts that are needed. And second, since it takes years to negotiate and ratify these agreements, we may simply run out of time. This is not to say that we should not participate in the negotiations and work hard to get the best possible result. But we should not rely on these agreements to save civilization. Some of the most impressive climate stabilization advances, such as the powerful U.S. grassroots movement that has led to a de facto moratorium on new coal-fired power plants, had little to do with international negotiations. At no point did the leaders of this movement say that they wanted to ban new coal-fired power plants only if Europe does, if China does, or if the rest of the world does. They moved ahead unilaterally knowing that if the United States does not quickly cut carbon emissions, the world will be in trouble. We are in a race between political tipping points and natural tipping points. Can we cut carbon emissions fast enough to save the Greenland ice sheet and avoid the resulting rise in sea level? Can we close coal-fired power plants fast enough to save the glaciers in the Himalayas and on the Tibetan Plateau, the ice melt of which sustains the major rivers and irrigation systems of Asia during the dry season? Can we stabilize population by reducing fertility before nature takes over and stabilizes our numbers by raising mortality? On the climate front, everything seems to be moving faster. Only a few years ago summer sea ice in the Arctic Ocean was shrinking, but it was projected to last for several decades. The most recent reports indicate that it could disappear in a matter of years. Only a few years have passed since the most recent report by the Intergovernmental Panel on Climate Change (IPCC), but already the rise in carbon dioxide emissions, the rise in temperature, and the rise in sea level are all moving faster than even the IPCC’s worst-case scenario. The good news is that the shift to renewable energy is occurring at a rate and on a scale that we could not imagine even two years ago. Consider what is happening in Texas, in the heart of oil country. The over 8,000 megawatts of wind generating capacity in operation, the 1,000 megawatts under construction, and a huge amount in development will give it over 50,000 megawatts of wind generating capacity (think 50 coal-fired power plants). This will more than satisfy the residential needs of the state’s 24 million people. China, with its Wind Base program, is working on seven wind farm mega-complexes with a total generating capacity of 110,000 megawatts. And this is in addition to the many smaller wind farms already in operation and under construction. A recent report in Science on an inventory of China’s wind resources concludes that the country can increase its current electricity generation sevenfold from wind alone. Most recently, a consortium of European corporations and investment banks has announced a proposal to develop a massive amount of solar thermal generating capacity in North Africa, much of it for export to Europe. In total, it could easily exceed 300,000 megawatts—roughly three times the electrical generating capacity of France. And we could cite many more examples. The energy transition from fossil fuels to renewable sources of energy is moving much faster than most people realize. In the United States, for example, while coal use has dropped 11 percent over the last two years, an estimated 190 new wind farms with over 16,000 megawatts of generating capacity have come online. The question we face is not what we need to do, because that seems rather clear to those who are analyzing the global situation. The challenge is how to do it in the time available. Unfortunately we don’t know how much time remains. Nature is the timekeeper but we cannot see the clock. In my recent book, Plan B 4.0: Mobilizing to Save Civilization, I lay
out a strategy to stabilize climate, curb population growth, eradicate poverty, and restore the earth’s damaged ecosystems. The climate component of that plan calls for reducing net carbon emissions worldwide 80 percent by 2020. The 2020 goal looks at what is needed to avert dangerous climate change, not just what is politically convenient. Plan B is ambitious simply because this is what it is going to take to turn things around. Will it be difficult? No question. Are the stakes high? No question. The thinking that got us into this mess is not likely to get us out. We need a new mindset. Let me paraphrase a comment by environmentalist Paul Hawken in a 2009 college commencement address. In recognizing the enormity of the challenge facing us, he said: First we need to decide what needs to be done. Then we do it. And then we ask if it is possible.

Adapted from the preface of Plan B 4.0: Mobilizing to Save Civilization by Lester R. Brown (New York: W.W. Norton & Company, 2009), available on-line at www.earthpolicy.org/index.php/books/pb4. Additional data and information sources at www.earthpolicy.org