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BEYOND A GLOBAL DEAL:
A "U.N. PLUS" APPROACH TO CLIMATE GOVERNANCE

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PROCEEDINGS

MR. CONRAD: Welcome everyone. I'm Björn Conrad of the Global Public Policy Institute in Berlin and I'm going to have the please today to leap through this event a little bit and moderate the proceedings. Welcome again. We are delighted to have all of you here for the launch of the final report of the Working Group on Climate Governance of the Global Governance 2020 Program. You've all found the report on your seats and if not, we have a couple of more copies here. Also most of you have probably helped yourself to lunch. It's also going to be there afterwards so that we can get some more lunch then.

The group part of which you see in front here and the other part you see seated here, please waive that everyone knows who you are, started their work thinking about the future of global climate governance right after the Copenhagen negotiations. The frustration of that experience for the group turned out to be an amazing source of creativity and innovation. The framework for that thought process that they have started a year ago and have finished now has been a mixture of scenario planning methodology and trend analyses that helped him to actively challenge the standard pattern of thinking and to adapt a more proactive instead of a reactive approach to finding pathways into the future of global governance. As for this innovative momentum, I think it's fair to say that

the group back then at the beginning of 2010 was among the first to really systematically think about a Plan B about effective actions to be taken over the course of the next decades in the absence of a global deal.

The group will now start to present their findings. We have Jin, Tom, and Andre presenting different parts of the report for about 10 minutes I would say, and then we have invited a wonderful group of panelists who sit up from here and will come up here after and I will introduce them then to share some of their thoughts with us.

When you came here you probably all thought you're going to come here and lean back and have lunch and here a bit of smart thinking about global climate governance that we're going to deliver on all of these issues, but in fact we would also like you to have a much more active role in all of this. The process that the group has been going through is now at a crucial point where they have elaborated and laid out their vision of how a Plan B can look but there are still a whole lot of open questions and loose ties about how this can become reality. So we are hoping from you to get as much input and as many thoughts as possible on what you will be hearing right now. With that I'm going to turn it over to Jin and we're going to start.

MR. WANG: Thank you, Björn. Ladies and gentlemen, thank you all for coming today. We are both pleased and honored to have this opportunity to speak with you to present our ideas and to listen to your

own. Today we are going to suggest that we change the way we think, talk and act on mitigating climate change away from a make-or-break U.N.-sponsored global treaty toward a "U.N. Plus" approach. This means turning from a global treaty to the world's climate leaders. These climate leaders including national and subnational governments, companies, communities, NGOs and so on. These climate leaders can make their own progress to reduce GHG emissions in the coming decades. What we can do is to support, catalyze and coordinate these climate leaders. Reform of global governance is needed to strengthen this patchwork approach. We believe in short there needs to be a recognition of common but differential responsibilities within countries and build among them. We believe the "U.N. Plus" approach is the most pragmatic and feasible method and approach for the way to move ahead. Tom, it's your turn.

MR. HALE: This "U.N. Plus" that Jin describes emerging from the scenario planning methodology that Björn mentioned at the beginning and in that methodology we look at the actors, factors, trading points and trends that shape the future of climate governance. From that emerged three scenarios which we have listed up on this slide and also in the reports in front of you. These scenarios in our view describe the full range of possibilities for the future of climate governance and they also, and this is a crucial point, highlight two windows of opportunity for different actors to shape those trends and shape the future of climate governance.

Let me walk you through them briefly.

Our first scenario at the top is Kyoto 2.0. This is a world of increasing consensus around the necessity of binding emission cuts through a series of progressively stronger global treaties. To have this vision fall into place we think several factors need to be in place. First, weather disasters that concentrate public opinion on the cost of climate change, ambitious corporations developing low-carbon business models that attract investment seeking -- advantages and governments and the military shifting to think about the security impacts of climate change as it relates to resource scarcity, population movements and this kind of thing. The most crucial factor though we identify is the behavior of the United States and China. These two, the G-2, have we think the ability to radically reenergize climate governance through a series of ambitious steps setting off a cycle in which ambition begets ambition and makes a global deal possible.

However, that first window of opportunity you have listed here is in our view all but closed. The domestic politics in both countries lead us to that conclusion. Instead we see as much more probable our second scenario which we call stalemate. This is a world of climate governance in ruins where the U.N. FCCC process unravels under increasing acrimony or at least is reduced to a very low and modest level of ambition. It's a where markets don't receive the signal to invest in clean

technology. It's a world where other kinds of concerns, economic issues, unemployment, security issues, take the international agenda away from climate change. It's a world where business-as-usual institutions lead to business-as-usual emissions meaning we're going to have catastrophic changes in global temperatures.

This bleak picture however is not inevitable. There is a second window of opportunity that the scenario planning methodology identifies. This is a window of opportunity that can we think with the "U.N. Plus" approach lead us to what we call the patchwork governance scenario in which a broad coalition of actors, countries certainly but also regions, states, cities, provinces, non-state actors like civil society groups, corporations, take specific, individual actions that somehow add up to more than the sum of their parts.

This is already happening. Probably everyone in this room can think of several examples. Maybe many people in this room have been involved with many examples of these kinds of bottom-up, civil-society-led, subnational-government-led initiatives. To cite just one example we can think about the bilateral talks going on today between the United States and China. At the side of the state visit is a U.S. Energy and Climate Summit in which these kinds of bilateral, bottom-up types of initiatives are very much on the agenda. But we also know that these kinds of efforts are not enough, that these bottom-up initiatives have not to

date reached the level of scope and ambition where they will actually make a difference for the global climate to the extent needed.

Therefore, the key question for policymakers, the one that our scenario planning methodology really highlights, is how to make these things work, how to bring them to the level of scale and ambition? Will they be able to bring us from the bad scenario, to scenario two, to the patchwork scenario and possibly even the future to back up to the place where a global deal is possible.

MR. LIEBER: Thank you, Tom. I would now like to talk you through a couple of the recommendations that our group has been working on. To begin with, we see that the first big move is to go beyond this global deal mentality where policymakers continue to focus all of their efforts on international negotiations. They will continue to be frustrated and disappointed. Instead we argue that we need a complementary or supplementary "U.N. Plus" approach and I would like to outline some of the key actors who we have identified and some of the specific actions they would have to take in order to seize this second window of opportunity. In fact, I would like to start with the two that are commonly identified as the main obstacles to any progress on global climate change.

Let's start with China. We see that China should engage in a very active bottom-up entrepreneurial approach allowing different actors such as city governments, regions, companies to commit to binding

emissions reductions because it's exactly this kind of local experimentation that has also founded the Chinese economic boom so that we now see that the richer regions of China should be allowed to move ahead more quickly than others and engage in this kind of initiative also together of course with international peer networks.

What about the U.S.? Quite contrary to common belief, the U.S. is already one of the leaders when it comes to these bottom-up approaches. There are dozens of initiatives at state level and literally hundreds at the city level and they combine about 45 percent of total U.S. emissions. To put that into perspective, this equals roughly the emissions of Germany and Japan put together. The question is how do we get the other 55 percent onboard and this is where federal leadership can play a crucial role. Faced with congressional deadlock and also financial and fiscal constraints, we would argue that the federal government can lead for example by establishing a baseline of expectations for states to initiate, to tackle, to move on and start working on climate change issues.

We also recognize that not all progress of this "U.N. Plus" approach can come from below so let's talk about the EU as the third key actor. We feel that the EU needs to step it up as well because we do see a very powerful role for the EU in shaping up what we call a coalition of the ambitious, of countries that commit to very specific and aggressive emissions targets. This can be done either by diplomatic incentives or

sanctions or even economic incentives and sanctions including that you could consider something like a green space linking trade and climate policies and maybe even start talking about carbon cross-border adjustment taxes.

Having said that, of course government action can only get us so far, so where does the business community and also civil society come into play? We see that they can lead where governments simply cannot lead any more so that the private sector can commit to specific emission reduction targets for example at the firm level but at the sectoral and industry levels. Civil society has the power and the potential to change how we think, frame and talk about climate change. They have the potential to change the narrative of climate change. And at the same time very importantly they can create legitimacy for all initiatives at various levels and not just national governments.

Having talked about all these various players and various initiatives, we also need a certain set of coherence and this is where the U.N. comes back into play, the U.N. Framework Convention on Climate Change. We do foresee a very important role for them to play in this "U.N. Plus" scenario. They could in fact add as a clearinghouse for a whole patchwork of different governance approaches, setting standards, defining norms and also making sure that information is shared between all these initiatives and actors.

Jin has talked to you about our general approach, the "U.N. Plus," and Tom has outlined or three scenarios so that I would like to summary our two key findings or restate our two key findings. That is, yes there a second window of opportunity, and secondly, there is something that we call the "U.N. Plus" approach that we could think about. At the same time of course there still are many open questions. This is what we have come up with so far and we are very much looking forward to the discussion later on. Some of the open questions for example could include how do we get more actors onboard?

Secondly also, how do we ensure that all of these targets, commitments and ambitious are enough to get us where we have to go? Third also, how do we monitor? How do we record? How do we add on all these various players and initiative? How do we bring it all into one?

That's about it for my part. I would now like to hand it back to Björn. Thank you.//

MR. CONRAD: Thank you very much for the presentation. What we would like to do now would be to first hear from our panelists a little bit of a reaction to this from the point of view of their experience and backgrounds and then afterwards we will open the floor for the larger discussion. Perhaps I would ask the panelists to come up and take a seat here.

First of all, I would like to welcome and to thank the four

panelists for taking the time to join us today. All of them are very well suited to give insightful comments to what we have heard and we hope that that will help the further progress of the group very much. We have first of all Jennifer Morgan to my left who ran a total of three of the biggest and I think most successful climate and energy policy programs. At the moment she is doing so for the World Resources Institute and she has been doing so before for E3G of London and the WWF and as such has become one the most esteemed I would say advisors to many government and NGO players in the climate world including Tony Blair's Breaking the Climate Deadlock Project and has put out a vast amount of innovative and interesting ideas on global climate governance and we hope to benefit from that very much.

To my left, Adele Morris is from Brookings so she is more at home here than we are. She is a policy director for Climate and Energy Economics here at Brookings and is, therefore, taking a more economics-based view on climate policy which we very much appreciate to have that perspective as well. She as served as senior economist to the President's Council of Economic Advisers as well as the Treasury and U.S. Congress.

To the far left to finish up the ladies' introduction, we have Jennifer Turner who is the director of the China Environment Forum of the Woodrow Wilson International Center for Scholars. She has worked with a strong focus on China and China's environmental and climate issues,

and in that capacity has also worked tirelessly to make something happen that we are also trying to do with the G.D. 2020 Program, to link activities and link expertise and link knowledge specifically between the U.S. and China on climate issues.

Last but not least, we Steve Hammer who is the director of the Urban Energy Project at Columbia University. He is bringing a very distinct perspective I think to this panel because his background and his work has been on urban energy and climate policies and he has been publishing and researching vastly on this topic and has been an adviser to a vast spectrum of entities from the EPA to the City of New York and to business players and NGOs on the topic of energy and energy efficiency policies on the urban level and as we have heard this subnational feature is very prominently in the work of the climate group and that's why we are very happy to have him here and get his expertise as well.

I would perhaps ask Adele to take the first shot at the presentation and share some of her thoughts. Thank you.

MS. MORRIS: Thanks, Björn, and thanks for inviting me here to join this distinguished panel. It's a pleasure to be here and I congratulate the group on their report and I'm going to provide some feedback on that, but mostly I would like to thank you for your contribution to thinking about this very important problem of how we get countries together to abate greenhouse gas emissions.

I do come at this issue as an economist. My research focuses on the economics of abating greenhouse gas emissions. My research leads me to understand the very tight linkages between emissions and economic activity. Essentially what we have to do is unravel the two and grow our economies without growing emissions and indeed reducing them. I also come at this issue as a former lead negotiator for the United States in the talks under the Kyoto Protocol. I was detailed to the State Department so that I have a kind of negotiator perspective on all of this as well. And having spent many years in the U.S. federal government, some of my comments will tend to channel the U.S. Federal Government, so apologies in advance. It's an important perspective and I think you'll see where I'm coming from.

Before I go into my recommendations and your recommendations, I want to do a kind of grizzly postmortem on the negotiations so far. I think it's really important to understand why this is one of the most important negotiating challenges we have ever faced as a world community.

I'll start with stating the obvious, that it's costly to abate emissions. If it were cheap and easy there would be nothing to really squabble over so that anything that reduces the costs of abating emissions will reduce the contention over addressing global climate change.

A couple other key features of this problem help contribute to its intractable nature. One is that if we're going to mitigate emissions, we're accruing costs now but the benefits might accrue over many decades or even generations from now so that you have this intertemporal problem between the costs and the benefits and you also have this socioeconomic difference. The people who are going to be most impacted by climate change are the poor and vulnerable, but the people emitting are the rich and that's both true within countries and across countries. That makes the challenge both politically difficult internationally but also within country. There are so many complications in projecting scenarios both on the economic and on the scientific side and all of these make it a little more difficult to tell a story to constituents about why the costs that are going to accrue are worthwhile and that the benefits actually justify the costs.

There are very diverse even competing interests within the negotiating community and because there are so many countries involved and they have very diverse economic and political interests, it makes it difficult to even agree on the objectives of the negotiations. In some cases there is a tremendous incentive for some to, this is pejorative but I kind of mean it that way, to lard up the climate negotiations with many, many other objectives that might be worthy but complicate the negotiation process, and to list a few, trade, development aid, human rights,

ecosystem protection. All of these are important and incredibly difficult in and of themselves, but when you layer them on top of a climate negotiation, it's not surprising that you don't get very far.

I will leap to some feedback on your report and again I want to congratulate you on trying to take a hard look at these questions. I like the scenario analysis. I think that's a fruitful way and I think you've identified correctly some potential enabling trends for the various outcomes in your scenarios. I agree with you that the second scenario and the third scenario are probably more likely than the first scenario and although we like rosy outcomes, I just don't see the factors in play that would get us there. I think right now we're seeing the makings of both the second and the third scenario. We see elements of stalemate but we also see elements of this patchwork governance.

As for your recommendations, here are some thoughts. I believe that many of the things you've listed as your recommendations are probably helpful and some might even be necessary. I don't see them as efficient so that the question is how do we get from the actions that you've laid out to something that's sufficient. Let me give you a few thoughts on what I think is a way forward. I think we need to start from the perspective of the emitters and I think it would be helpful to think of these negotiations as economic negotiations. We thought about this as an environmental treaty and we've treated it in the same framework we have in other

environmental treaties. My sense is this is not working. I think we need to treat it more like a negotiation around trade or a negotiation around financial market stability and financial contagion and all of the other things that get the economic ministries into the conversation. I think too much the negotiations have been left to environment ministries many of whom have not been supported by their economic ministries and I think that that has had averse outcomes in the negotiating process.

I think it's really helpful to understand why the U.S. takes the position it does. Many countries don't understand that in our system of government the only way an agreement can be implemented is if it's endorsed by Congress after the Executive Branch brings it home. That constrains our Executive Branch. Also our negotiating team is representing the entire Executive Branch. Every ministry is part of the U.S. negotiating position. That makes it a little different than many other delegations who are there being represented only by their environment ministries. So I think we need a new forum. I think the Major Economies Forum is a good start, it needs to be smaller, and honestly I think it needs to exclude parties whose emissions are not germane to the ultimate objective of reducing emissions. I think mitigation should be the focus of this smaller group, that adaptation, assistance, economic development and maybe even technology transfer should be in a separate negotiating forum perhaps still within the U.N. Framework Convention.

I think one thing you left out in our recommendations to the U.S. is that we need to pursue our existing authorities under the Clean Air Act and I think the international community can be very supportive to the administration in its efforts to do that, although I think the international community needs to be a little more aware of its own limitations. I think there is very little that the international negotiating process does or it has actually in practice very little influence on what happens in Congress and the regulatory trajectory in the U.S. so that we need to keep our expectations modest.

Finally, just a little plug for some of our research. We've come out with a couple papers. One is "Economic Analysis of the Copenhagen Commitments," and what we're trying to do here is argue that you should compare the efforts and try to understand that international spillover is likely as a result of the international climate agreement. Then finally, a piece called "Achieving Comparable Effort Through Carbon Price Agreements." We would argue that the negotiations historically have been around targets and timetables but that that is at least one or two steps removed from the actual effort that goes into complying with the agreement. We think that parties should be allowed to negotiate directly on effort and that an example of that would be through negotiating around a price on carbon. That would give I think countries a certain amount of more certainty as to the economic burdens

that they would face in achieving their commitments. I'd be more than happy to discuss any of this in the Q&A.

MR. CONRAD: Thank you very much, Adele. Jennifer, would you like to go next?

MS. MORGAN: Thank you for inviting me here and thank you for taking the time after Copenhagen when many of us were still probably trying to figure out what had happened and the lessons from it to think through a really thoughtful set of scenarios and response. I thought what I'd do is share some reflections on functions that I think need to be performed in an international regime and then look at who can do that and some of the recommendations and try to answer your questions in 5 to 7 minutes.

If I think about functions of an international agreement and if I particularly try and look at the U.N., I think one function is ambition. We have a collective problem and one of the roles of a U.N. agreement has been, and the Cancun agreements do currently include, a two degrees goal and not binding. So where does the collective ambition discussion happen is one question. Where do the issues around equity get addressed? This is a fundamentally incredibly driven inequitable process that is occurring where those who aren't contributing to the problem at all in many cases are the most impacted. That is a collective action problem and needs to be addressed somewhere and I think that's important.

The issue of justice. Where does everyone have a voice? In thinking about the functions there it's important to get countries together who are the big emitters to consider their shared challenges, but where do the most vulnerable have a voice? They're not in the Major Economies Forum and are the ones who are really facing no longer existing -- transparency and comparability. I think transparency is a pretty easy one to think about so that if you look at any international agreement how do you know what your competitors are doing both in order to hopefully drive up ambition because you can see whether your competitors are acting or not. But also potentially to look at the comparability so that you can see and get a sense of is my competitor having a similar marginal abatement cost, are they implementing and in which sectors, that type of thing so that you can really get that picture. And all of those, ambition, equity, justice, transparency and comparability, I would argue that you need a United Nations multilateral process or agreement to deal with. I don't see anywhere else that can do those things. The G-20 can't do that, the MEF can't do that so that I think the last function in a way is what about finance? The creation of the Green Fund in Cancun was a very important part of the outcome there, but clearly the U.N. is not the main body to be driving finance around the world. The question for me there is it more of a leveraging or coordination role? That does link in with equity, it does link in with just particularly around adaptation, so looking at that piece.

There are then some functions around things like incentives, technology cooperation, technology to drive trade where I think that the U.N. is probably not the best place to be looking at those issues. They don't have the main actors in the room. The main actors are not governments often obviously, they're corporations, so they're looking to the bilateral relationships that go on or in coalition groupings that can forward so that those are important places to look.

While I agree that the question is what you've posed as this multilevel of governance from local to nation to regional and then to international, my one reaction in your findings is is there a second opportunity? If you would ask if Cancun had failed completely then you would be in your second scenario. We would have been in complete fragmentation and there would have been no driver anymore. But Cancun I would argue is a moderate success so that there are elements there that I think the paper slightly in my view underestimates what a U.N. Framework Convention can do, not everything so that it's not the global deal, but if you look at some of these functions and what's now set up to occur, you have a science review around 2 degrees and 1.5 even taking into account observed impacts which is new. You now have a process where all those pledges that came in going into Copenhagen are going to go into the agreement and there is going to be a process to clarify those assumptions and to link that in then with pretty detailed but with more

details to be negotiated transparency provisions both for developed and developing countries. So whether that is accounting standards or not for developed countries, but certainly the whole transparency debate for developing countries.

Then you have the Green Fund which is linked in with equity and with justice and in the next year you will see a lot of detailed negotiations there. That's not saying that the U.N. can do everything, but I think the other thing to note is the key actors around the world particularly developing countries, the one reason I think that Cancun was a success is because that was at risk. If Cancun had failed then it would not have been possible to even think about the U.N. Framework Convention having a central role anymore. That didn't happen, and that partially didn't happen because it's a very important thing for a number of actors, not only the small island developments states but also for China, for India and for the major emerging actors.

Quickly on your recommendation, I would probably give a little bit more weight to that in your last scenario than you did. I think there is a question in how to pull that together with the bottom up and my view is you need that rulemaking to occur internationally, but we need to get action happening on the ground and incentives need to be created through bilateral initiatives and national initiatives for low-carbon development to become the norm, that it is viewed as profitable, that it is

viewed as meeting economic goals.

I think with China one of the key pieces is making sure China succeeds in its 12th Five-Year Plan as it's forging the way more than any other country, and supporting China in your recommendation about meeting its national target. I completely concur that the U.S. has the authority. We have done analysis to get to 14 percent below 2000 levels by 2020 with the go-getter scenario only with executive authorities where we need an aggressive administration.

Finally for the EU, yes on a coalition. They've started some of that with the Cartagena Dialogue, but going to 30 percent is actually quite important because this is about the economics, I agree with that, and I think it's really moving it down to the national level, and if Europe moves to 30 because it is economically beneficial also from a trade perspective and from the jobs perspective, that will help the evidence base both in the United States and globally. Thanks.

MR. CONRAD: Thank you very much. Since you have alluded to the very important factor and role that China is playing in all of this and also because the working group comprises the participants of the U.S., the EU, and China, I would again like to go ladies first and ask the other Jennifer to perhaps share a couple of thoughts on China but everything else as well.

MS. TURNER: I told them I was redundant because they

had Jennifer here.

Thanks so much for inviting me. It was an excellent report. I have to be honest that I was never a fan of scenarios, but your scenarios were not these kinds of la-la land things that I often see come across my desk. It was very accessible, very well grounded and I think that is an important thing to note. I'm an editor of publications and I think when things read well.

So you know, I also liked the recommendation about patchwork. I pointed to it and said that's me. I direct the China Environment Forum and I had the global mafia on China energy and environment and I thought I had a patchwork and I'd never thought of it that way. In my work, I've been here 11 years working on the topic of U.S.-China energy and environmental cooperation and I've often felt that I was below the radar in D.C. for my first 6 to 7 years because the big wigs never really paid attention to it, it was just kind of cute. But now the fact that I had to run over here from the other Brookings meeting with the DOE, it's very exciting looking at U.S.-China energy cooperation. To me I have to say energy and climate are overlapping. Over the years it's been very ad hoc and underfunded. Congress doesn't appropriate money for the U.S. Government to cooperate with China on these issues. The U.S. NGOs, WRI and the big dog green groups in town, have been keeping the spirit alive working with the Chinese setting up concrete projects on the

ground. What's exciting is that since November 2009 with the Obama-Hu agreements, there were agreements. That was quite exciting. Suddenly I'm getting all these calls and people want to know what's happening. I've done a lot of meetings over the last year called Cooperative Competitors. Maybe governments have to cooperate so there can be good, even, fair cooperation. It's been a very optimistic time.

But at the same time I have a publication out there that has the beautiful renewable energy, the wind towers, China's green revolution and we are excited that China is being very aggressive on low carbon. There are challenges and there are a lot of people working with them on that. But what I see as a kind of scary trend and you kind of touch on it in your report too, is public opinion. You talk about public opinion of climate, that the public doesn't get it. In many ways as in the States, there is the big opinion that it's the Chinese.

I was giving a talk out in Fargo, North Dakota, and I had local environmental folks come to me saying we're trying to do advocacy on climate change and people are always coming up to me and the farmers in North Dakota are yelling me about the Chinese. It's a big challenge. One of our recommendations was that the NGOs, that civil society can play this role on educating the people about the "U.N. Plus" approach. I hate to say it, but can as ask has the NGO community succeeded in convincing people about climate change? Then again if you

shift it more toward these local initiatives, the bottom up and seeing success, that can be helpful.

Also back to the U.S. and China, with China's success now the talk is China is stealing jobs. There have been reports and I've been talking to a lot of smart people in my network about renewable energy. It doesn't matter if a wind turbine is made in China if you install it here, that 75 percent of the jobs are here and messages like that don't seem to be getting as to the advantages of working together. Again what's exciting is that over there Orient with all the high-level folks, there were a lot of Chinese and U.S. researchers and NGOs talking about how they could move forward with this clean energy cooperation. I have to say I think that I'm a born optimist and I'm feeling a lot more optimistic now if it can be consistent. Notably, the formal bilateral agreements can change in time, Congress may not fund them, but the one piece that maybe could be a model when we're thinking about other bilaterals include the Clean Energy Research Centers, I don't know if you heard of them, part of the Obama Agreement saying that the U.S. and China will work together on electric vehicles, carbon capture and sequestration and clean air coal. What's interesting about that model is that some ways it embodies your patchwork idea. It has NGO, business and government folks working together on the topic. I'm going to be doing more meetings over this year because I'm just now trying to find out who the Chinese side is. You guys

are involved. They're in the green building.

I think that that could be something that as you move forward might include looking to some more models like that that are actually bringing the private sector in, and now just the U.S. private sector, the Chinese private sector which includes big entrepreneurs. I'm going to zip because I'm random and all over the map here and look for some more consistency to talk about urbanization.

MR. CONRAD: That's a wonderful transition. I don't have to say anything. Steve, it would be great to hear a little bit of a different take I assume.

MR. HAMMER: I have a very different take on things. My first job out of university was working for the sanitation department in New York City. That was the agency that many people considered to be the garbage fairy because every night you put stuff out on the curb and it's gone by the morning and it goes somewhere. That speaks to a different set of responsibilities and policy issues that you think about when you're dealing at this sub-subnational level.

As I'm listening to these presentations by very articulate people who think very great thoughts, I worry about is the garbage going to be taken away tomorrow? And in terms of who I talk to, how quickly will the building permit be issued by this agency? Is it going to be a green permit or is it going to be something that allows a browner building to be

constructed.

Then you take all of these issues down to the operating level where decisions have to be made, it gets really messy and I have a hard time today deciding am I going to be optimistic or am I going to be pessimistic? Because I can speak to either side very easily and at length. I've spent a lot of this last year working on these issues in China running a training program and technical assistance program for local authorities across China. It's known as the Energy Smart Cities Initiative that was run by an NGO known as JUCCCE. We parallel other initiatives that were run by the Climate Group, by WWF, by the Institute for Sustainable Communities and the WRI is involved in some of these initiatives. All of them are trying to help local authorities in China who are hungry for information and ideas. We bring supposedly best-practice ideas from the West, but then we also try and contextualize them to understand how this stuff might fit in in China. Will it fit in in China? We're not presenting thou-shalt ideas, it's please consider ideas or tell us what you're doing that's better than this already because we'd like to bring that idea back home.

The one nice thing that I can speak to is that there is already a plethora of these kinds of initiatives going on around the world. In the twelfth 5-year plan you're seeing low-carbon cities mentioned and you're seeing mayors from China get up in public forums and say the words low-carbon city. They're not quite certain what it means, they're not quite

certain how they're going to get there, but they now know that central government wants them to create a lower-carbon city than what they have right now, so that that is a good thing. With clear messaging that's beginning to take effect.

The challenge comes when we begin to think about this thing, and again I appreciate the direction you're heading in and I think we're in this patchwork situation right now. We've been working at that approach for some time and 2020 is a really hard timeframe to try and get this stuff done. Ask the mayor of New York City where the 2nd Avenue subway line has been talked about for over 60 years how quickly he can build a new subway line. He's going to say actually it's not my responsibility. It's this other regional government agency that has to take responsibility for that. That's not my deal.

One of the challenges we get when we start thinking about these issues is who has this responsibility. Is it the mayor? Is it a regional transportation agency? Is it a state-level agency that might actually have the funding? How much of it is on you that you need to take up some of these price signals that have been offered up by the markets or by different governmental bodies to take action? How many you got in a car today? Hybrid? Me too, a hybrid, but now when I got to Washington. What kind of price signal is it going to take to get me out of that car, to have gotten me onto the Metro and to then have made me walk a few

blocks to get here? Maybe a congestion pricing scheme. Maybe that will convince more people and fewer cars to change our behavior.

Congestion pricing was only allowed in London because of an Act of Parliament. Central government had to sanction local government to take action. Local governments are creatures of the state. They can only do what central government says they can do. Mayor Bloomberg couldn't move congestion pricing forward in New York City because the state refused to act. Federal government money was put on the table, the state legislature refused to take action and congestion pricing died. It may come back now because we're in a very different budget scenario in New York City and this may be a new way to get some money on the table for interest in transportation initiatives.

In the case of buildings, again this is an area where perhaps local government can take a lot of action but, again, what's it going to take you the building owner or the building tenant to take action? Is the mayor the best person to make that happen? Are you going to believe the mayor more than you're going to believe an NGO? Are you going to believe the market more than you're going to believe government? Are you only going to do it when and until there is a tax break that's sizable? There was \$1,500 on the table last year to do energy efficiency upgrades. Did I do it? No. I'm a minority here. I'm sorry. What is it going to take to move us and who is really best situated to take that action?

I'm going to stop being pessimistic and I'm going to talk more about the good news that's out there. Yes, the C40 exists and there is now competition created by local authorities to begin doing more and more and to share information. That's a great thing. In the EU, the Covenant of Mayors is similarly helping local authorities understand how they could do the kinds of stuff that you're saying, take the big ideas and bring them down to the ground level and help you make the decisions that we need to have happen if we're going to make progress on any of these ultimate targets.

In the U.S. we have the Block Grant Program. It's an interesting situation. It's authorized by the Energy Policy Act of 2007 but not funded until 2009. Congress acted and then they didn't act. They didn't fund the program. Then you have to question realistically how much money should be going to individual cities? What types of activities are they invested in? Do we want to fund planning or do we want to fund implementation?

Tokyo is establishing a carbon market focused on the city of Tokyo. Forget this big global carbon market stuff. Forget Reggie. Tokyo is doing this. Who else is going to follow on from what Tokyo is doing in that regard? It's a very interesting question. It's the operationalization of all of these ideas that I think about on a regular basis and that mayors are thinking about on a regular basis. If I encourage you to do one thing, it's

to try and pay attention to what local authorities are doing out there, but then you have to ask yourself a good question. Am I satisfied with the pace of implementation? Am I satisfied with the level of ambition? And are we actually doing the stuff that's going to get us down to the 450 and back down to the 350 parts per million? Or did they just pick some number out of the sky that really ain't going to get us where we need to go? Thanks.

MR. CONRAD: Thank you very much.

(Applause)

I think I made a good call taking you, Steven, taking you last because you delivered exactly what I wanted to set up the discussion, and that has given two things, one is the vivid description of the enormous dynamic that is going on in terms of button up approaches, especially in cities, and that -- this dynamic, as I think, was the glimmer of hope that also the working group kind of moved along and -- and helped the work very much and now is central to the report.

And what you also did is talk a little bit about the limitations of this, about the limitations of what is called the patchwork approach in the report and that is basically the point where the working group is also at now to find ways to -- how do we do it? How can we scale up? How can we make this work and take this dynamic that is inevitably there and make it count?

And with that I would like to open the discussion to the room. I am going to have a slight bias towards the members of the working group for the first couple of comments, if they may, or we're going to go right ahead and take questions from the room and I'm going to distribute the questions to either of you or members of the working group as I see fit.

Please. Perhaps you can identify yourself quickly and --

MS. FRIEDMAN: Sure. Thanks. I'm Lisa Friedman. I'm with ClimateWire. Thanks for doing this. This is really interesting. My question goes back to the point that Jennifer made about the collective ambition. One of the things, I think it was, that Andre said that really struck me was that the United States has dozens of state and local initiatives and that we're a leader in these. I mean, it hasn't -- it has not had an impact on the United States emissions. And so if we're entering a period where we are doing pledge and review, and if we're entering a period where we're relying on a patchwork set of local and industry initiatives, do we -- what is -- I mean, for both the folks who wrote the report and maybe some of the experts who are involved in the negotiations, what is the plan for making sure that we stay below 450? Or do we just assume -- do we hope that countries see, once they start working, that, gee, it's not as hard or as costly as we thought, and they go beyond that ambition? Because the scenarios that exist now from WRI and others say that the pledges in the Copenhagen Accord don't take us

far enough. Thanks.

MR. CONRAD: We're going to collect a couple.

MR. KLONUS: Thank you. Julia Klonus. I'm an economist working on development and focusing on environmental agenda issues.

I would appreciate an explanation by the first panelist about the recommendation of focusing on economic issues away from environmental and social issues. That somehow is an oxymoron there, because you have come a long way of realizing that economic issues, environmental issues, social policy issues, or lack of policy there of, have economic impact. How can you -- could you tell me, what exactly do you mean by separating economic from environmental and social policies or lack of policies? Thank you.

MR. CONRAD: Please?

MS. CECYS: Hi. Thank you. Kate Cecys from the Pew Center on Global Climate Change. Thank you very much for the report. I think we're also all doing policy scenario options, particularly after Copenhagen, a little more optimism after Cancun, and I like Jennifer's framing -- Jennifer Morgan -- and Jennifer Turner, of course, but Jennifer Morgan's framing about, you know, about the functions, and we do need to be careful about, you know, ambition and something to tie this together. And -- but we are in a bottom-up world now, I think, and the approach of companies and cities and everybody working together is going to be very

important.

And one thing I wanted to touch on and to get the authors to explain a little bit more is the role of sectoral agreements. It's a very dirty word in the UN context, but if we are going in these different directions, I think, whether you're sectoral agreements focused on sort of companies getting together across borders or whether you're talking about countries getting together across borders, with particular sectors.

MR. CONRAD: Take one more.

MS. SIEGEL: Hi, I'm Jane Siegel with the U.S. Department of Commerce. I work in the commercial service with the senior energy advisor.

I wanted to say something about patches. I think that's a good, sort of, heuristic device and it should maybe have more legs. I think, when I see all of the programs that I'm aware of and one that I work with -- a couple that I work with -- they seem to be isolated patches but it would maybe be worthwhile for the working group to look at how those patches can spread and grow. I thought of contagion, which is -- has a negative connotation, I don't mean that, but spread, how it's spread. So, for example, the -- we work with the League of Green Embassies, which has recently been taken over, the head of it, by Ambassador Bruce Oreck, who is absolutely determined to implement, on the embassy side, President Obama's Executive Order 13514, which is that all U.S.

Government properties need to be greened. In short -- I don't want to take -- you can look it up. He's the U.S. ambassador to Finland and has gotten several millions of dollars -- 80, I think -- to knock down an annex at the embassy and rebuild to LEED platinum certification.

That is a demonstration project and he is interesting other local governments who have buildings that contain millions of metric square feet. That's an example of contagion. We're trying to make that work, because that's an export, and that's what we do.

One other story of contagion I really must tell, it's a company, a tiny company in California, which has a technology that takes Montreal Protocol gases and kills them, destroys them. They earn credits under California's law, emissions trading law, which had a near death experience but survived in the summer. The credits they earned in June were worth nothing, and now, or at least in December when we spoke to them, they're worth \$8 a credit. These are small steps, these are the patches, but they have -- what is the potential for these patches to spread and grow? Which I think would be a good project for the group.

MR. CONRAD: Excellent. Excellent. Thanks for this. I see the working group busily taking notes. It's all going to go into the second version then of the report.

I heard two questions that I would like to give back to the panel. The one on focus on economic issues, I think, they will be happy to

answer, and on collective ambitions, the first question to Jennifer and the other questions or comments on the importance of sectoral agreements, and more generally making patchwork governance contagious I think the group will be happy to say something on.

MS. MORRIS: So, let me give you an example of the negotiating history that I think has not served the process or the environment well. So, the Kyoto Protocol largely lists the emissions targets of its participants as emissions reductions relative to some historical base year, in most cases, 1995 emissions.

So, after that, many countries felt that any subsequent discussion of commitments had to be framed in terms of departures from 1995 emissions. The problem with that is that different countries are growing in the baseline much differently -- or had grown much differently, from each other since 1995.

So, two countries with the same target of X percent below 1995 emissions could have embedded in those commitments very, very different levels of economic effort that were required to achieve those targets. So, the result of all of this is that an insistence that we had to negotiate around a certain kind of formula for emissions because the economics were so different -- you were in this conundrum, you either had to have targets that looked very different but had about the same economic effort, or you had to have targets that looked the same but

actually embodied very different levels of economic effort, and this conundrum persisted for years after the Kyoto Protocol was negotiated in 1997. And I think all that discussion distracted from the actual fact that we need to reduce emissions relative to baseline and every country has a different baseline, so any effort to try to formulate things in exactly the same terms just complicated the negotiations.

So, what we're arguing is that, make it a little simpler. Let countries negotiate directly on the effort they're willing to put in. I mean, ultimately, that's sort of the political viability test of the policy you're trying to adopt, right? So, if countries can know what the economic burden of their commitment is, then they might be more likely to take one and they might be actually more willing to take a tighter target than they otherwise might because they have some certainty as to the economic burden associated with it.

Now, remember, for every environmental commitment there is an economic outcome. For every economic outcome, there is an environmental level of performance. So, by shifting the negotiations to the economic burden, it doesn't mean that I'm not -- that I'm somehow divorcing the negotiations from environmental performance. What I'm trying to do is to get an agreement, which we haven't had yet. I mean, if you focus -- if you insist that the only possible kind of commitment has to be a target then I think you're -- you're disallowing a flexibility. In fact, we

actually saw this -- I think we moved a long way in Copenhagen because now countries can choose their own base year. Wow, what a radical idea. And some countries even chose their own framework of target, emissions per unit GDP.

So, that kind of flexibility in formulating commitments, I think, can foster agreement and actually ultimately be better for the environment because you actually get somewhere instead of being locked in this -- what I have seen as very unfruitful dynamic about the looks of the commitment as opposed to its actual performance.

Does that help? I hope it helps.

MS. MORGAN: Just one quick response. I mean, I think we do have an agreement, though. We have a continuation on the Kyoto Protocol, and there's not an agreement there, but basically what countries agreed in Cancun was to take the pledges which are economy-wide targets for Annex 1 countries and different kinds of nationally appropriate mitigation actions from developing countries, list them in an information document as a decision, and now to clarify it, because there isn't a lot of information about what those targets and actions actually mean. So, nobody knows what's in that 17 percent box for the U.S. and nobody knows what's in the BAU for a number of countries, and that process, in some ways, is -- there's a formulaic answer to your question, Lisa, and then there's the way things work in the real world.

So, you know, I think that it's the core question that you're asking because we know the gap between the Copenhagen pledges or the Cancun agreements and staying below 2 degrees is massive and growing. We know from the UNEP gap report that the accounting rules and how that all comes together matters, and so you have a science review that's in there that has to happen by 2015. You have to, you know, clarify these targets, and I don't think that's going to go away, I think that will keep the international pressure on it. I think transparency is one part of the answer.

WRI has just launched something called the Open Climate Network. We've brought together top institutes from all major economies in the world to track their country's implementation for civil society engagement. But I also think it's about the pace of innovation. We have to accelerate the pace of innovation and that gets to when you're funding technology, cooperation and transfer, are you funding incremental change or are you funding innovation so that that pathway happens more quickly? Because that has to occur in the real world, and that race to the future that comes through, that's one of the things that we'll actually track, is which countries are winning that low carbon race.

And that gets to one of your recommendations on the border tax adjustments and EU because I think at the end of the day it has to be economically profitable to move to a low carbon world. And there are low

costs, no costs, things that can get -- or quick turnarounds that will get you part of the way there, but lots of barriers to doing them. But until, you know, there is a situation where a country really believes that moving to low carbon is in their benefit -- and if they don't, that there will be a penalty -- and that gets into a link of, you know, if you're not looking, if you're in a pledge and review world without a compliance or enforcement mechanism, these border adjustments and trade could start to become that enforcement, right? That's -- you know, and -- so, I think linking those different pieces in your work would be very interesting -- highly challenging, highly political, not a bit -- you know, I'm not out there saying this is what needs to happen, but I think you've put your finger on that.

And Lisa, I think that links in with the ambition question as well.

SPEAKER: I'm a Ph.D. student at Oxford University in my day job. I wanted to thank you all again, both panelists and members of the audience, for coming today. Your questions and the response of the panelists have really helped to, I think, put a sharp point on our thinking and what we need to do next.

And I think one of the key issues that both sets of questions and the responses brought up is that we're kind of trying to confront a very fundamental mismatch here between what is happening, as many people have highlighted, on local levels, but also trying to take a global view of

these low level approaches. A lot of what I think we're trying to wrestle with is how we create the architecture to -- there's a phrase that I like a lot when talking about issues like governance, which is to figure out how you can have institutions that add effectiveness at the margins to what a lot of people on the ground are already doing. And I think that's, in many ways, kind of the crux of what we're trying to figure out.

And I think, again, the responses, and the questions, have helped us to kind of -- at least made me realize that the crux seems to be how you differentiate responsibilities between all levels of actors. I think that's the kind of crux of the governance issue.

Mr. Henry, you mentioned that cities can only do what states allow them to do. I think it's a perfect example of how we need to kind of lay out these responsibilities at various levels.

And I think what one of the things we're trying to get at is that we need rules that apply at all levels and to all players in the game, not just nation-states and not just at the multilateral level, but at all different levels.

I wanted to quickly offer, and this is a direct answer to the two questions, I think, about putting legs on the patchwork scenario for an example of how we thought that might work out, and I'd certainly be interested in particular responses to this but also just as a general example, which is in the case of the United States building on Clean Air

Act regulatory authority that exists to mandate states either in individually or in combination to develop some sort of clean climate and energy strategy which might prioritize things like green jobs or energy security in different combinations but nonetheless have some baseline mandate to address climate and energy issues. That's just a kind of more concrete example about the ways in which we thought that these responsibilities, these rules, might be allocated to all levels of government and all the players in the game rather than just focusing at the apex.

SPEAKER: To speak very quickly to the sectoral issue, we think there's a lot of potential here. In aviation a lot of progress has been made to making planes emit less carbon into the atmosphere. There's also successful examples of other kinds of environmental regulations that have been dealt with at a sectoral level. The chemical industry's safety standards, for example, were negotiated under the threat of regulation, but by the industry itself, and those are the kinds of things that we think might be expected for certain kinds of industries, the things where you have a small number of players who had a large capacity to make these agreements themselves.

The advantage of doing it sectorally as opposed to doing it at the firm level or even the industry level, is to remove the competitive fears that companies might have about taking ambitious measures themselves. If you do it yourself, your competitor might eat your lunch, but if everyone

sits down and agrees to move at the same time, those kinds of agreements can just shift the industry as a whole without disturbing the market share that each company has.

MR. CONRAD: Take a round of questions.

MR. ROTHSCHILD: Yeah, hi. My name is Kenneth Rothschild. I'm just an independent person just attending this. First, I really admire you for this presentation and taking this on. This is an extremely, extremely difficult problem and it's very representative of where our culture, the world and locally, are stuck right now.

Basically my belief is we're structured in a totally inappropriate world to deal with the public problems that are going to confront us and this is only going to accelerate through our lifetimes. So, my points that I wanted to raise -- and actually they've been somewhat raised already -- I think the economic thing is very important as you spoke about. I think we have to develop some metrics to actually break this down into a comprehensible way for both the average person and for policy people. I think we need metrics for sustainability and we need that on a personal level and we need that on a larger level too.

Right now the world is focused on growth, growth, growth, growth, but really that's part of our problem, we're screwing ourselves up. I think we have to look at population and lifestyle, how that's going to affect the individual, how that's going to affect the community, and I think

that includes looking at distribution of wealth and income.

So, basically to just summarize, I think we've got to focus on transition because the rough road now is if we can see goals and we can put them out there, but at the same time we have to develop transitional systems that can make sure that, as the first speaker mentioned, the hurt doesn't go to one side of the community while the other side thrives.

And finally I'd just say, I would appreciate some identification of the barriers, specific corporations. I mean, you're not going to be able to name everybody, but the fact of the matter is, private industry really controls the reigns of both governing and the economy, and I think we've got to start to look at that and identify some specifics so that this isn't a sort of nameless thing. And it's not a matter of just pure guilt, but it's a matter of bringing it down into understandable confrontations that are going to be real and how we're going to deal with those confrontations. Thank you.

SPEAKER: Thank you very much. (inaudible) and I'd like to sort of repeat what the gentleman said. If you read the newspaper you see very prominent person, he doesn't believe in climate change, and once I was told that never use the word 'green', it's so elitist, but I think everybody agrees with energy saving, saving water, clean air, that kind of stuff, so I think it needs something to do, each ordinary citizen can understand, but also each ordinary citizen can participate to do something.

Two or three weeks ago there was a "New York Times" article, there was Midwest farmers, they just do not believe climate change or anything, but that they're absolutely for energy saving, something like that.

MR. HARLAND: Hi. Andrew Harland with the International Institute for Strategic Studies. I wanted to go back to the scenarios that were in the report here, the first, second and third, the first being the Kyoto 2.0, and I've noticed it in a lot of reports and a lot of things recently, that the ultimate goal should be completing Kyoto or building on Kyoto, but I think something that's lost often in this is that Kyoto has largely failed as a treaty. It has not reached -- it hasn't brought down carbon emissions at all. The only country that's going to meet its emissions targets is the EU. Canada is 40 percent over. You know, the United States obviously didn't join. So, I guess my point may be that it's the "U.N. Plus" approach could actually be more effective than the Kyoto 2.0 approach. So, maybe look at it through that way instead of saying the be all and end all is a new Kyoto, so.

MR. CONRAD: Excellent. Thanks a lot. That last question is actually a question that was heatedly debated within the group and I think they're going to have to say something about it.

Since no question on China has been raised so far and I cannot let that stand, I'm going to have one question for Jennifer Turner.

The -- one of the recommendations we came up with is to use -- or to follow the model -- tradition of experimentation and provincial differentiation of policies within China to use as a model for climate change as well, to have different parts of China, provinces, province-level or where cities move ahead, give them more leeway and move ahead on their own green ambitions. I think we discussed that quite a bit and I think it's an interesting premise and I would love to hear from you how you see that, how possible and how feasible that kind of internal differentiation in China might be and also how possible it is to link that to international networks and even to firmer commitments on an inter-regional level.

So, perhaps I give the confrontations, the first questions, I think I give to Steven, who might have to say a little bit about that.

MS. TURNER: Because he's so confrontational.

MR. CONRAD: No, because I think it speaks directly to a couple of things that he has raised.

MS. TURNER: It does. Yeah.

MR. HAMMER: Okay. Con Edison is the incumbent utility for the city -- serving the city of New York and Westchester County. They've had, essentially, the exclusive service franchise for the last 100 years. I'm a building owner and I would like to install a piece of equipment known as a combined heat and power system to provide power and thermal energy, heating and cooling, for my building.

I have to go ask permission of Con Edison to plug in, to interconnect to their system, because typically the way it works out is I'll never size the system so it satisfies all of my needs. Con Edison has the right to impose all kinds of technical restrictions, so they're going to drive up the costs, increase my permitting costs, increase my consulting costs that may actually make it infeasible. They also have the right to charge a tariff that has been agreed to by the state. There's a separate tariff for the steam system, there's a separate tariff for the gas system, and there is a separate tariff for the electric system.

I may make a different decision based on whether I'm on a block that's served by the Con Ed steam system or not. Is Con Edison to blame or is the state regulator to blame for this situation?

I have a really hard time answering that question because Con Edison is the one who I, the building owner, am going to have to deal with most of the time, but they essentially can come right back to me and say, go appeal to the state regulator. We brought our information to the state, they agreed to our tariff structure, to our permitting structure. Blame them, don't blame me.

You also have to take into account the fact that, how right is it that I want to do -- I'm a building owner, I want to do the right thing in my building, but what if I screw it up and what if that means I blow out the system for everybody on my block or everybody in my neighborhood? I

bring down the grid in my neighborhood for a day, a week, a month?

Does Con Edison -- are they obliged to protect everybody's interests, their shareholder's interests, or are they obliged to let me plug in because I'm trying to be green?

It's a very messy question when I say, is a corporation being an obstacle in this situation, because in many times government is very complicit in this decision-making. They create the rules in which many of these corporations act.

Now I'm going to give you a different scenario then I'll be quiet.

I'm an electric vehicle manufacturer and I just want to sell cars. I want to sell a lot of green cars, I want to sell plug-in stations around Manhattan. I need to work with the utility, I need the buying public, but all of the sudden Mayor Bloomberg says, I would love you to have your green car, but I don't want too many cars in midtown, period. I want everybody on public transportation.

Is it the car companies -- are they at fault for trying to conduct business, to sell what many of us would agree is a good thing? But the mayor is also looking out for, how do I prevent traffic congestion from bringing the city and bringing economic activity around the city, to a crawl? Is the corporation good or evil in that regard?

I have a hard time answering your question because I can

play both sides of that card very, very easily.

MR. CONRAD: Perhaps the group wants to say something about one versus three? What's going to be more effective?

SPEAKER: May I say something to that? I'm Tobias from Berlin, also part of the group. We've discussed that at length, actually, which scenario we think would be most effective or the best for the planet, of course, and I think it's hard to say at this point. When we designed these scenarios or thought about them using the methodology, we tried to make them as extreme as possible to make them different. And our Kyoto 2.0 scenario is of course a scenario where it goes much beyond the Kyoto Protocol that we know from history, it's a new protocol that includes many more countries and that actually has teeth, which the Kyoto Protocol did not have, and that's the reason why, of course, the change in global carbon emissions is very small compared to the initial ambitions.

So, the optimal scenario for us would still be scenario one, but that would go much beyond the original Kyoto Protocol, and we actually think that, of course, the reality -- and we've heard that today in the questions and also from the panel -- is an overlap of the different scenarios, somewhere in between, we already see some of the patchwork governments emerging. We also see some -- or saw some success, albeit small, in Cancun, which, again, gives us a little more hope maybe for scenario one.

And as Tom has mentioned, beginning also there is no reason to believe that we can't get from scenario three then to scenario one, it just won't happen by 2020 and we've heard also today that 2020 is a very, very -- very, very short timeframe, but it could well be that once we have this governance, patchwork governance or governance network, in place, then 10 or 20 years later, that actually can muster the global support and actually create the expertise and the trust in the system that finally we can get some functioning global treaty that actually will create what we need.

I think there's just one little comment, if I may, that I want to make about this as well, regarding the idea behind the patchwork governance, why we think it is actually so interesting and so important. The real big questions that we've raised for ourselves, and we also haven't found answers to, is how can we actually make this happen? How can we get from the state that we've heard today that it's already happening -- there's a lot of initiatives going on, we've heard some stories, some examples -- to a point where those actually add up, where they do make a difference? Before we had to question -- in the U.S., we have a lot of bottom up approaches but still carbon emissions are rising. Well, they would have risen probably more than they actually have, but we haven't measured it, we can't put a number to it, we don't have any monitoring capacity, we don't account for it, we can't add it up.

So, we have all these local initiatives and then we have the global discussion at the UN, but the linkage in between is missing and Jennifer Morgan has just given us an example of what maybe -- how these linkages could look like, and we believe, if we want to make scenario three work, the patchwork scenario, we need to work on these linkages and we don't have enough knowledge. We need to know how we can bring different actors together, how we can create monitoring capacity, how we can create new fora, but also how we can add teeth to that to make that actually something that really changes the outcome in the end which is the only thing that's really important, is the global carbon emissions, of course.

MS. MORGAN: Just quickly, I think -- just looking at your Kyoto scenario and also thinking about whether to include it or -- I think it's important to do a little bit of history as to why it has failed to reduce global emissions, and I don't think it's because of the treaty itself. I think it's because the United States and the Bush Administration didn't ratify it. So -- and there were reasons for that, those were the domestic debate, climate is -- economics is domestic, but the original plans of the protocol were to have -- there was an Article 10 proposed in Kyoto to include major emerging economies, that would have been the next step. Canada would have been in a very different position if there had been domestic implementation in the United States.

So, we can do revisionist history but I don't think it's the

treaty. It's the politics around this issue that make it so challenging of combining policy and politics, on the international level and then on these national levels, in a way -- combine them that they actually get you to your outcome.

So, I think everybody but Canada will meet their targets, they'll buy through the carbon market, so you did get the carbon market there, but I just think it's important to kind of unpack that a little bit, and I actually would include a Kyoto scenario -- I would put a low probability/high impact one, which is slightly different than what you have, which would be to have everybody move forward with an amended Kyoto protocol except the United States. I would think you would put the U.S. in a decision under the convention and the world would recognize that getting an international treaty ratified through the U.S. Senate is a highly improbable event and would be willing to accept that they would be integrated in the regime, docked in, but have it not have that ratification threshold. Highly improbable would require massive incentives, I think, for China to move forward under a binding treaty without the U.S. there, but it is in discussion amongst various folks and I think it's probably more probable than trying to move everybody into a binding treaty.

I think that's possible before 2020, but I just throw it out there for a little wrinkle.

MR. CONRAD: Thank you. Perhaps, Jennifer, a little bit on

the potential of giving provinces in China more freedom to move on their own speed?

MS. TURNER: Well, I mean, you know, Beijing doesn't really control things in China. You've got to toss that idea out of your mind. But, you know, but taking a step back, you know, your initial question was saying that, you know, that you want the provincial governments to maybe get more -- you know, the low carbon initiatives to be linked to the international world but that's how it happened. I mean, since 1990, you have your energy foundation, some bilateral aid, international NGOs, you know, they've really been the capacity buildings, both on the policy front -- I mean, the fingerprints of international organizations are all over the clean energy laws in China, and then, you know, particularly, you know, while people tend to look at, you know, the question about patchwork, you have all these small initiatives that maybe - - you know, how do you make them grow, but I think, you know, we could be getting more to critical mass. And also when you link with that, the how -- the nice big slogan now about low carbon, right? Right now I would say it is a low carbon, there is no real low carbon city yet in China, but I do think it's a good point that they are talking about it and that, you know, that -- and so there's been a lot of top down pressure and they did reach their energy intensity goals, right?

But I've been hearing from some Chinese that they're at kind

of a fragile state because they've lost a lot of -- it took a lot of political power to make that happen, but I think though that now what may be a sign of hope, not that the business rides in on the silver horse to save the day, but when you look at the number of international companies going to China, you know, of course losing jobs in the U.S., forget that for a minute, but that, you know, going to China as the laboratory, right, for carbon capture and sequestration, renewable energy, the list goes on and on, and I mean, I think that matters, because today when I was over at -- you know, the DOE Brookings event over there with the government and everyone talking saying that, you know, we need to scale this stuff up, and in China, you know, they could be the laboratory.

But China -- the Chinese entrepreneurs, they're not just sitting there like, waiting, we will be the lab for the world. They're looking at this, ah, we can get this technology and we're going to go overseas.

I mean, there's been some interesting partnerships between U.S. and Chinese companies like one up in Pennsylvania, they're building an IGCC plant, right, it's that carbon, capture, sequestration, ready, and so I had these guys come and talk at my forum and I said, well, this is great, there's jobs in Pennsylvania being formed from all this. What's next? They said, well, it's never going to work in the U.S. because you don't have the policies, so we're going to go -- this U.S.-Chinese partnership -- and we're going to go to Eastern Europe and Latin America. You know,

so it's kind of -- I mean, it will lower carbon emissions somewhere, and I think that that's a really kind of an encouraging development as well that, okay, you know, everyone said like, yeah, U.S. doesn't have the market, but they know that, you know, there's the innovation, maybe on our end, and it's a combination of coming together and so that's another piece.

My optimism is just probably really putting you off here again, isn't it?

But I mean, you know, again, it's not solving everything. There's a lot of governance problems. But I think though that you -- that there are going to be some pockets of innovation in China and that they do the -- you know, the central government, top down, top down, but they are at this experimentation stage. The only problem is, sometimes they see one that works and they try to make that go for everyone.

But, no, there's a lot of exciting innovation and I'm seeing a lot of the international partners kind of moving more -- they're kind of done with talking with Beijing. They're going to the grass root. Like you guys. You're in Guangdong and Guangzhou Province now. Who knew that WRI would go to the ground?

MR. CONRAD: Excellent. I'm not sure -- I think we're going to wrap up now and I want to again thank the panelists very, very much for their input, very valuable for the work of the working group, and also for the very thoughtful questions from the audience. I think we have gotten

what we kind of lured all of you to do here, and thank you -- thank you
very much for this. (Applause)

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CERTIFICATE OF NOTARY PUBLIC

I, Carleton J. Anderson, III do hereby certify that the forgoing electronic file when originally transmitted was reduced to text at my direction; that said transcript is a true record of the proceedings therein referenced; that I am neither counsel for, related to, nor employed by any of the parties to the action in which these proceedings were taken; and, furthermore, that I am neither a relative or employee of any attorney or counsel employed by the parties hereto, nor financially or otherwise interested in the outcome of this action.

/s/Carleton J. Anderson, III

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