THE BROOKINGS INSTITUTION

# CREATING SUSTAINABLE GLOBAL CITIES

Washington, D.C.

Tuesday, October 6, 2009

PARTICIPANTS:

**Welcome and Opening Remarks:**

STROBE TALBOTT
President, The Brookings Institution

ANNA TIBAIJUKA
Under-Secretary-General, United Nations
Executive Director, UN-HABITAT

BRUCE KATZ
Vice President and Director, Metropolitan Policy Program

**Presentation:**

LISA HEINZERLING
Associate Administrator, Office of Policy, Economics, and Innovation
Environmental Protection Agency

**Panel Discussion:**

DARREN WALKER
Vice President, Foundation Initiatives
The Rockefeller Foundation

JANETTE SADIK-KHAN
Commissioner
New York City Department of Transportation

THE HONORABLE GREG NICKELS
Mayor, City of Seattle
President, U.S. Conference of Mayors

CHETAN SHAH
Former President (2008-2009), Southern Gujarat Chamber of Commerce and Industry
Surat, India

* * * * *

P R O C E E D I N G S

MR. KATZ: I wanted to thank at the beginning and acknowledge the U.S. Department of Housing and Urban Development, the United Nations Human Settlements Program, the UN-HABITAT, that teamed up as co-hosts of World Habitat Day. HUD Secretary Sean Donovan, Dr. Anna Tibaijuka who I'll introduce in a minute or two, really deserve praise for their inspired leadership in pulling this off. I also want to acknowledge the Rockefeller Foundation, Darren Walker is here today and he'll be moderating the panel, for both their inspired leadership around the world concerning prosperous and sustainable cities, but also for their vision and guidance as World Habitat Day was pulled together.

With half the world's population now living in urban areas, metropolitan areas, the themes of this year's celebration are not surprising: how do cities lead on, how do they cope with climate disruption, economic crises, poverty alleviation. What we're going to try to do today is take a closer look at how cities and metro areas around the world are taking action to address global warming, and in the process creating jobs, furthering innovation and catalyzing economic growth. With the Copenhagen Summit only several months away, the focus on cities is timely and critical. A couple of weeks ago the *Financial Times* had a headline which read, "Meetings are Global but Action is Local." The fact

is, as how cities grow, how they shape the built environment, has an enormous effect on climate. Last year Brookings put out a report where we showed that the metro areas of the United States with the smallest per capita carbon emissions are those that have higher residential density, offer greater transportation options like transit, and are dependent upon a mix of energy sources. Cities are literally on the front lines of global warming. Again the *FT*, "If global warming results in droughts, floods, damage to infrastructure, it's the cities that are going to be in rescue operations, securing transport, housing and basic services of their reasons against such risks."

At Brookings we're intensely focused on how cities are at the cutting edge of economic transformation. The shift to the low-carbon economy is going to alter everything, the source of our energy, the products we buy, the kinds of homes we live in, the location and form of our communities, and how we literally move from one place to another, and this is largely going to be an urban and metro transformation. The green economy revolution is going to be disproportionately designed, produced and then deployed in our cities and metros.

Today what we're going to do is showcase how cities are already leading the world toward climate solutions. You're going to hear from three global cities, Seattle, New York and Surat, India -- and thanks

everyone for traveling here today -- that have shown bold leadership in moving toward a more sustainable future. Then we're going to hear from Lisa Heinzerling who is the new Associate Administrator of the U.S. Environmental Protection Agency's Office of Policy, Economics and Innovation, and I'll introduce her after Dr. Anna Tibaijuka speaks, about how the administration is leading on so many aspects of climate action.

But first it's my privilege and it's my honor to introduce Dr. Anna Tibaijuka. She is the first African woman elected by the U.N. General Assembly as Under Secretary-General of a United Nations program. She is Executive Director of UN-HABITAT, a Tanzanian national, and this I don't quite understand, but she may comment on it. She was educated at the Swedish University of Agricultural Science in Uppsala. She is currently a member of the World Health Organization's Commission on the Social Determinants of Health. She is also a member of the Advisory Board of the Commission on the Legal Empowerment of the Poor which is co-chaired by Madeleine Albright and the Peruvian economist Hernando de Soto who has been affiliated with Brookings in the past. Again it is an honor to introduce you to Brookings, and we look forward to your remarks. Thank you.

DR. TIBAIJUKA: Thank you very much, Bruce, and thank you for receiving us here. Ladies and gentlemen, good morning. It is

such a great honor for me and my colleagues from UN-HABITAT to be here at the well-known and esteemed Brookings Institution on my first time to address and to visit you at this institution. So I would like to say once again thank you so much for the support for hosting World Habitat Day because it was hosted by the government of the United States and the citizens. So I would like to thank you very much, and wanted also to say that I have been informed and reliably so that it wouldn't happened if it wasn't for you, Bruce, so really also I would like to acknowledge the support connecting us to the new -- administration so that Secretary-General Ban was able to play the role that he did. Thank you very much. Of course, the Rockefeller Foundation, my dear friend and supporter, Darren Walker also worked very hard. He has been supportive of us ever since we started this campaign of trying to raise the profile of the plight of the living environment and of course the urban poor who are suffering the most.

Among a distinguished audience like this one at Brookings, I would like to say that I thought I should maybe just add onto what I already said yesterday, to focus on the climate and energy efficiency are the challenges of our time and think how they relate to the local agenda. Within the U.N. family of programs, UN-HABITAT is tasked to really deal with the built-up environment. We are classified by the United Nations as

an environmental agency. There are two core environmental agencies of the United Nations. They are all headquartered in Nairobi, Kenya, which is really the United Nations environmental headquarters. The more better-known program is the United Nations Environmental Program, UNEP, which really takes care of the macroenvironment, the water, the natural resources, the skies, the seas, but then you have also the built-up environment and that's us, the habitats, the cities, the towns, the urban infrastructure, sewers, sanitation, you name it. So this is how it was conceived from the beginning.

But somewhere along the line the local agenda sort of slipped between the cracks. It never reached the profile that from the beginning since Stockholm, these are also called the Stockholm -- because they were really created at the first United Nations Conference on the Human Environment which was convened in 1972, when the international community for the first time started really discussing environmental issues. In academic circles, and a number of you are of that background, the issues of the environment and climate change are not new. What is new is that the public domain has finally caught up with this reality. So the vision, if you revisit for example the proceedings of the Stockholm Conference, there is nothing that we are discussing today which was not discussed in Stockholm. But the difference on my part, you

just said that I studied in Sweden where I was a student. Why Sweden? It is not a typical training ground for a person like me who is really I'm an African from Tanzania who is speaking -- studying in the United Kingdom or the United States if you are lucky. But I was married to a diplomat, so as a young bride I ended up in Stockholm, so what the hell was I going to do with myself? So this is the story, Bruce, since you were asking for it.

I was young, I carried a child and I thought that if my marriage was going to hold I had to find something else to do, while waiting for my husband to come from the office, I ended up at Uppsala and I was to graduate later, so that's basically the background.

But if you studied in Sweden as I did, you also actually studied internationally because the education system is based on excellence. They have this Nobel Price system. They look for the best lecturers. So I remember my first lecture on environmental economics was given by an American professor from I think it was Michigan or one of those universities. We were being forced in 1975 to construct an ecological balance sheet in economics class. We were really fed up and we said, When is this ecological balance sheet going to be applied? He looked at us and he said, "Some 25 years from today." It never occurred to me to make sense until now. I have lived to see that actually he knew what he was talking about.

Ladies and gentlemen, we have to grab the moment because the moment is such that now finally the public has understood that it cannot be business as usual and that we simply have to save the climate. So I think that there is momentum both in the north but also in the south, because even in the south the idea that, no, we have to protect the environment is now really no longer in dispute. But where there is no agreement or may be an area where thinkers like yourselves and policymakers can make a difference is how do we then take advantage of this awareness to have actual action to save the climate?

Within the U.N. as we go Copenhagen, these are diplomats and everybody is trying to hold their cards close to their chests, who is going to give and who is not going to give, and they are all agreed, but there is a lot of posturing, and the posturing is that the polluter pays. That is the first principle on the table. The polluter pays, who polluted the environment, who is responsible for the ozone layer, so basically the Kyoto Protocol as you know made some progress but not all the countries signed on. It was never ratified by the U.S., for example, and now we have moved on. But I think what I have seen in the government of the United States and the people hopefully are also moving forward saying, yes, there is some responsibility. And it is important in my view for us not to be caught up into political polarization and posturing, but to say that it

would be futile for humanity to get stuck into this idea of the polluter pays. We cannot undo the past. It is better to forecast on the future.

The four issues before the Copenhagen Conference are adaptation, mitigation, technology and international support of the adaptation (inaudible), the national support measures. On the mitigation front, this is where you have science, technology, innovation, energy efficiency, new techniques, so the mitigation front also for us at the local level on the other hand has also the planning components. So I am in this town and we have launched our book on planning. We have seen that mitigation is not only the core technological science, there are also a lot of practices which could also be taken as mitigation measures.

The adaptation is a local issue, and really once the governments agree on adaptation as a principle, who is going to adapt to it? It is the mayors, it is the citizens, it is you and me who are going to have to adapt to the new issues. So that a change of lifestyle is necessary and it is going to be painful. It is easier said than done, but I think it is also important. This change of lifestyle is both for the people in the north, plus in the south. At the political level there is a belief, I talked yesterday at Howard University and I think we were also discussing what is the same thing when we said it is not realistic for someone in the north with four cars, and it was actually one of your colleagues from the

Brookings Institution who said that he has four cars and he is trying to tell the Chinese not to buy a car. You are not credible. So I said, Why should you have four cars, one for every kid and your wife or your spouse, but then the people in the south should use bicycles? These are important issues. At the United Nations this can take long hours of negotiation. So there is a question of credibility, that we are in this together. Instead of getting stuck in the past, the past is the past, but now the future. So how do we adjust.

Then there is the question of also requisite investment and appropriate planning with us where habitat can contribute. This idea of having bicycles and cycling, if you are going to use a bicycle, you assume there is going to be a bicycling lane, a cycling lane. In many places, particularly in the developing countries, in our own hometowns in East Africa and Nairobi where we are headquartered and in my own country, Tanzania, it is very risky to take your bicycle. You can be knocked down by a car. So these are some seemingly simple things, but you would be surprised when it comes to action. So I think this idea which Bruce said about the goals are global but the action is local, so we really need local action for global goals and this requires investment. And you will be surprised. That's where international cooperation, that's the issue being discussed in Copenhagen, how do we then solve the problems? I believe

that in many cities of the developing world, take Africa for example. In Africa now in cities like Nairobi there are slums, you name it. Actually soon we should start walking because if you try to go by car you will not even arrive where you are going. The traffic jams are such that it is really no longer working realistically. So I would like to say this idea of investment, this is not going to come on the cheap, it won't come by grandstanding declarations, it will require action on the ground and this is not always in place or where appreciated.

The final thing that I would like therefore to put before you because I understand this a dialogue and a discussion and I myself am also here to learn and I'm keen to hear your own perspectives, is that the technology transfer, that's where you are leading. You are advanced societies, scientific societies, knowledge based, but there are questions of technological innovations but also sharing of technology. Because if every innovation is quickly patented, that's fine, but then if it becomes expensive then the developing countries will say these guys, they are trying to stop our development. So there is suspicion. So if you are going to promote international knowledge, there must also be a system of the public good. There is a public good element in the climate change reality, and so that brings in Rockefeller and the others, who is going to finance this research? Because if research is going to be a private-sector-led

enterprise, it becomes expensive, it can become a source of tension, it can even become irrelevant because if people cannot afford it, then really it isn't actually good, it is not going to be able to spill over and disseminate throughout. So I think there is a question, and that's where I am grateful that the Rockefeller Foundation is also taking the lead, the Bill Gates Foundation and others, we are encouraged by this because if you look at the green revolution, let me look at for example, climate change has implications for food security. While we are discussing housing here I'm focusing on that because that is really my responsibility. But of course a house is an empty shell if you don't have no food. People move away from houses if there is no food. So food security is a challenge, and you will find that with environment deterioration, we now confronted with the challenge of rapid and chaotic urbanization. The push factor becoming an environmental consideration in the countryside in Africa, for example, is one of the main factor pushing people prematurely from the countryside and into the cities. One-third of the urban poor in Nairobi are environmental refugees, because in Africa if you look at the conflicts, they are related to environmental deterioration. The societies are under civil strife for a long time and most of them are pastoral societies with maybe the possible exception of crisis in Rwanda, but if you look at Somalia, if you look at Darfur, even in northern Kenya we have serious challenges, if

you go to northern Uganda, these are pastoral societies and pastoral systems are no longer able to function to sustain those communities, so it places itself into conflict as people are struggling for grazing rights and water rights, and you name it, and then you have conflicts. So these conflicts are pushing people out of their rural livelihoods into the cities, hence the concept of environmental refugees.

Let's say that when we are faced therefore with such a situation, raising rural productivity is not this rural/urban divide, the dichotomy you normally hear particularly in fact here I would like to very much appreciate the support I have received from Darren Walker and Dr. Rudino at the Rockefeller Foundation trying to show that rural development is not possible on its own without urban development. After all, economic theory tells us very simply that if you want to raise agricultural productivity, you must have markets for the surplus. So if you don't invest in secondary towns and in rural growth nodes which are normally urban in nature, how are you going to promote rural productivity? Why should farmers produce surpluses if there is no market beyond their own subsistence?

The green revolution in Asia, we have now scenes of starving populations in Africa, Ethiopia, they are familiar, but it was the case also with Asian communities in the 1950s. The green revolution of

Asia materialized because of public research, so the high-yielding varieties that finally changed food security in Asia, India and other places, is the product of international research but financed by the public sector. For Africa you can say why don't they copy Asia? After all, the technology is there and the cities are there. Well said. But Africa is a dry continent. It does not have water. The current high-yielding varieties, the seeds and the technology, are based on irrigation. That does not help Africa very much because you simply don't have the water to be able to go to scale with irrigation systems, so you really need high-yielding and drought-resistant varieties.

So this is really the flavor of the thinking that I would like to give you, and I already said the issues are many and they are varied, but the good thing is that they are surmountable, but they will require international cooperation, and for the advanced societies which is finally going to be predicated on international solidarity and realizing that we are in this together. Thank you for your attention.

MR. KATZ: It's now my pleasure to introduce Lisa Heinzerling. Again, she's the Associate Administrator of the U.S. Environmental Protection Agency's Office of Policy, Economics and Innovation. Normally what you do at this point is look at the bio in your packets, and I really don't need to go through this, but somehow we

managed to combine Lisa's bio with Administrator Jackson's bio. So I'm reading through this thing last night and I'm going, let me get this straight. She's got a law degree from the University of Chicago and she's got a master's in chemical engineering. This can't be true. This is like some kind of super person. She must be like 85 years old to have gone through all this learning. When you read the bio, the first half is Lisa. Legal expert, legal scholar, Georgetown Law faculty. The bottom bit is Administrator Jackson, chemical engineering and all the rest of it. So the combination of these two women at EPA is just formidable.

In any event, what Lisa obviously is going to talk about is how this administration, the Obama Administration, is approaching the issue of climate, and I would say that there has been a remarkable set of initiatives in a very short period of time. Obviously the big ticket item is what happens in Copenhagen in several months, but if you look at what this administration has done from the very beginning, DOT, EPA and HUD focusing on sustainable communities, HUD, DOE and EPA focusing on energy efficiency and retrofit, Secretary Chu focusing on energy innovation and new ways to deliver research institutes around the country, this is a remarkable step change in how we think about climate and particularly in an integrated way, multidimensional, across agencies with ultimately a focus on place. Lisa?

MS. HEINZERLING: It's hard to have the same first name as your boss. I haven't been called Lisa H. so many times since first grade when there was also a Lisa Seifert in my class.

Thank you very much, Bruce, and thank you to the Brookings Institution for hosting this event. It's an honor and a privilege to be here and to be able to talk about the administration's approach to climate change and sustainability. Let me begin by referencing our U.N. colleague's statement about credibility and say one word. As you may know, we're in the second week now of meetings in Bangkok, international meetings on the climate negotiations that will culminate in the meetings in Copenhagen. I think one of the questions that arises in these meetings is, Can the U.S. bring a credible presence? Can the U.S. credibly say we are committed now as we have not been to doing something about climate change? I think we can, and I'm going to describe in two ways the approaches that this administration and in particular the EPA are taking the way that I think that they're new and how I think we that we can credibly say both to our own domestic community and to the international community that change is afoot.

The two features of the administration's approach to climate change that I want to describe this morning are institutional and legal and regulatory. On the institutional side, as you may know and as Bruce just

alluded to, this administration is deeply committed, maybe fanatically committed, to interagency processes, to many meetings among the agencies, many agencies, about the many issues that confront us, and nowhere is this more evident than with respect to climate change. I've been in the administration since January 21, I am proud day-oner in the administration, and I have seen first-hand that the administration is committed to having on a variety of different levels interagency discussions of climate change. What you see are a couple of things in those meetings. One, you see that throughout the government the administration has placed people in agencies at high levels whose either official or unofficial designation is climate adviser, climate coordinator, climate chief, what-have-you, so that throughout, pervading the government in a way that you may not notice if you simply looked at news accounts or organizational accounts are people who are committed to this as a top-tier issue.

Two, what you may not see unless you attend these meetings and participate in these phone calls is how deeply committed each one of these individuals is to the issue of climate change, so that at each agency we have a person whose designation is to participate in activities on climate change and at those organizations that person is committed to action sooner rather than later, stronger rather than weaker

on this most fundamental problem. That is a change. That is enormous if you think just about the way institutions work to have these people in each of these settings and have this kind of commitment and this kind of agreement.

Another way in which the administration's commitment I think to institutional change is its creation of the kinds of partnerships that Bruce has alluded to, I want to talk briefly about one in particular, and that is the partnership between HUD, DOT and EPA on sustainable communities. I think DOT may refer to them as livable communities and we at EPA may refer to them as sustainable communities, and we don't mean anything different. So if you've heard that, the basic idea is to bring these agencies together in a way I think they have not been brought together and to have them work to coordinate funding and programs and activities in a way that works for rather than against sustainable development. This is big and new and exciting and hard. The idea is to have, and here's a big list but it's a great list, safe, well-designed, energy-efficient, water-efficient, conveniently located housing that people of all incomes can afford. That's one idea. Here's another idea. Having transportation systems that give people options like public transit and safe walking and biking routes to reach jobs, schools, parks, medical care and so forth as a second idea. Here's a third one. Have waterways that are clean and safe for drinking,

for swimming and for fishing, have air that's safe to breathe, have land that's free of toxic contamination. Those are ideas that are at the heart of this partnership. Those are ideas that I think can only be achieved by breaking down obstacles that sometimes emerge in legal systems that work in tension with each other sort of invisibly and unintentionally. By the way, that last idea about waterways that are safe for fishing and drinking and air that's safe to breathe and land that's safe, that's not just a good idea, it is the law. It's been the law for a really long time. Go back and read some of those statutes and you'll just thrill. You'll stand up and you'll walk around and you'll say, wow, that is excellent. Let me go over to the EPA and help them out because they have great laws, and we do, and sometimes as I suggest, sometimes those laws are impeded by even other government institutions, sometimes even our own institutions within EPA that create obstacles to real reform. That's part of what I think the HUD, DOT, EPA partnership is about.

Here's another example of institutional change. The President yesterday signed an Executive Order on Sustainability and Greenhouse Gases. It's a huge executive order. You're used to executive orders that read like resolutions that are that are tiny, this goes on for pages, is extremely specific, and very ambitious. Within 90 days agencies have to report to the CEQ on what they intend their greenhouse gas

production goals to be. This is enormous in creating the kinds of institutions here within the federal government that will contribute to mitigating climate change. As you may know, executive orders in the past have had this kind of catalyzing effect not only on the government, but on the private sector. We may see that here too.

Let me give you a final example of institutional change that I think is exciting and big and new, and that is we have an interagency process underway being led by CEQ but being staffed by agencies all over the government on climate adaptation. What the government has recognized, sad but true you all know it, is that no matter what we do right now with respect to mitigation, no matter how aggressively we cut our greenhouse gas emissions, the world is committed to a certain amount of warming and change and that we have to do something about that. I think you'll hear from cities later who are on the forefront of this kind of activity who have been right there and who understand what flooding and drought and so forth will do them, to their infrastructure and to their populations. We in the federal government are coming to realize this as well, that our infrastructure, even our core missions, will be affected and made harder by climate change. To take an example at EPA, it will be harder to clean the air and the water as a result of climate change. We're coming to understand that and we are through this interagency process and through

work underway within the agencies themselves trying to do something about it.

All of these policies you'll see can be described more than one way. They have more than one goal about them. I think it was in a paper maybe about a year ago that economist Nicholas Stern famous for his study of the economics of climate change said, Suppose we're wrong about climate change and it's not as bad as we think. Suppose the world doesn't warm as much as we think or there are natural processes that will prevent the worst effects of climate change. What do we get if we act on climate change? Cleaner water, cleaner air, healthier lifestyles. That's what we get in the bargain. So the idea is that the things that we're doing now, the institutions that we're creating and the institutions that we're reforming, are a good idea not only for climate change which is I think a big reason, a good enough reason to do them, but they're a good idea for all the basic reasons that many of those agencies exist for in the first place. At EPA for example if we act aggressively on climate change, we also happen as Nicholas Stern said to clean the air and the water and promote healthier lifestyles, so that when you hear about our initiatives, I hope that you will think climate change plus, that these policies are overdetermined is what I like to think of them and no matter what your interest is, you can find a good reason to do them.

Let me turn to the things that we have happening at EPA. It's been busy. It's a time when the agency I think is back on its feet. It's an exciting thing to see, to come to an agency filled with incredibly talented and created and dedicated people and to see them come forward with ideas that now somebody is in a position to say yes to. It's a remarkable thing and a real privilege for me to be able to be at the agency at this time. Before I talk about what EPA is up to, let me say that I think everyone in the administration hopes that sooner rather than later we will get comprehensive new legislation for the climate. If we do that, we can act more comprehensively, more holistically, more cost-effectively than we can through regulation. By the same token, while we wait, the agency has a legal imperative to act. We have a legal imperative to act because as you may know, in 2007 the Supreme Court ruled that the Clean Air Act gives the EPA the authority to regulate greenhouse gases. The Supreme Court also held that EPA may not refuse to act on that authority without meaningfully engaging the scientific evidence on climate change. So very, very early in the administration, Administrator Jackson asked for a briefing on the long-dormant proposed endangerment finding which had been famously sent to OMB in 2007, the email was not opened, and what Administrator Jackson suggested was it was time to open that email and see what it said.

So what have we done in the meantime? Here's what we've been up to. One, in April the Administrator of the Environmental Protection Agency proposed to find that greenhouse gases endanger public health and welfare within the meaning of the Clean Air Act. She found that it was not at all a close case, that the evidence was overwhelming that greenhouse gases pose a threat. This is significant I think in at least two respects. One, this kind of scientific finding is the legal predicate for a good deal of regulation under the Clean Air Act. That is, once the Administrator makes a final determination on that finding, then a good deal of regulatory consequences, a good portion, can ensue. Two, if the Administrator makes a final finding that greenhouse gases pose a danger to human health and welfare, this will be the first official formal declaration of a body of the U.S. government charged with making this kind of finding that this threat exists. Despite the fact that this may scientifically kind of what I read in the newspapers afterwards, somebody was quoted as saying, "It's a duh moment." It's a big deal. It's a big deal to the United States government finally say that, say it officially, say if formally, say it in a way that brings legal consequences. We've gotten over 400,000 public comments on that proposed finding. People are reading them as I speak.

The second thing that we've done is consistent with that proposed finding, the EPA along with the Department of Transportation has proposed the first ever rule controlling greenhouse gas emissions from the significant source of greenhouse gases and that is the result of the well-known autos deal the President announced in May, and just a couple of weeks ago the EPA and DOT made their proposals public. The final rule is due in March, so there you have the first official proposed regulatory effort on greenhouse gases in the United States.

Third, the EPA has issued a final rule requiring the reporting of greenhouse gases from major sources of emissions. Sources 25 tons and over are required to report their emissions. This brings us approximately 85 percent of U.S. emissions. This can be a predicate not only for figuring out new policies, but information as I'm sure you're well aware can itself be an impetus for action. When people see the extent, the magnitude, the distribution of their emissions, sometimes behavioral changes follow.

Last, let me mention an initiative announced last week, the so-called PSD Tailoring Rule. In a world of jargon and wonky detail this may be the most jargony and wonky. It is a rule designed to tailor a major permitting program for stationary sources to the largest sources, so that hereto 25,000 tons is the important number, and here what EPA has said

is that this permitting program once it's triggered by a final regulation of greenhouse gases which would be for example the autos rule, that this permitting program will apply to the very largest sources.

Together I think these activities show a couple of things. One, EPA is following its legal imperative and I would say environmental imperative to act on climate change. Two, you can see from EPA's actions so far that we're actually not after the little guy. We're not after your pizza parlor, we're not after your barbecue, that we're trying to start with the biggest sources first, and when you do that you capture an enormous percentage of their overall national greenhouse gas emissions. Notice that the greenhouse gas reporting rule was inspired by an appropriations bill that just said please issue a rule on greenhouse gas reporting, so if EPA had wanted it, it could have done a whole lot of different things in that rule. What it chose to do was focus on the very biggest sources and to say we're going to capture a large percentage of the emissions through that focus. So that's the kind of activity that I think you can expect to see from EPA, real activity, real progress with a focus on the very largest sources.

Let me just say in closing that I haven't talked a lot about cities. I apologize for that insofar as I was asked to talk about climate change and sustainability from the federal government's perspective,

that's a good idea since that's where I work. But let me say that I applaud the efforts of cities. I applaud Mayor Nickels' effort to have a thousand cities sign on to the Climate Action Plan. And I also hope that cities will not depart the field once the federal government enters. You cannot. There's too much work to do. You have too much at stake. You're too close to both the problem and the solution, and so that I'm very much looking forward to working together in the future on this fundamental issue. Thank you very much.

MR. KATZ: Now we're going to hear from the cities, and to kick this off and then moderate it, it's a real pleasure to introduce my friend Darren Walker who is the Vice President for Foundation Initiatives at the Rockefeller Foundation. I think what we've seen really in the past 5 or 7 years at Rockefeller is a big shift from a typical focus on areas of specialization, whether it's environment, whether it's housing, whether it's transport, whether it's workforce, whether it's education, and that tends to be how the United States organizes itself with a very specific focus on these complex areas of domestic policy. What we've seen at Rockefeller importantly here in the U.S. and then abroad is a focus on place and a focus on cities and a focus on metropolitan areas because not only are these the places that really drive prosperity in our countries, but they're also the vehicles ultimately for social inclusion and environmental

sustainability, and they are the communities where all these disparate issues ultimately get joined together and delivered.

Darren is the right person to be leading this effort at Rockefeller because he comes from the ground level. As many people know, he was the CEO of Abyssinian Development in Harlem, and it's at the neighborhood level where almost organically all these disparate issues do get joined together. Darren will introduce the panel.

MR. WALKER: Good morning, everyone, and thank you, Bruce, for that kind introduction and thanks to you and Amy and the great team at the Metro Center here. I know that the Brookings Institution is known around the world as a great think tank, but I like to think of the Metro Policy Program as a do tank within a think tank, and it's great fun for us at Rockefeller to be your partner and to see the extraordinary work you're doing here. Of course, I have to thank Assistant Administrator Heinzerling because I learned so much today about the EPA and the work that she's doing, and I too last night was incredibly impressed by her C.V. and I'm happy to know that it's two people and not one person. And my great friend, Anna Tibaijuka, it's been a joy and a pleasure, a real treat for us to work with you and to see your leadership and action and to travel to Kabara and Karboto and the neighborhoods and communities where you are so well known and so revered. We are greatly indebted to you for

your leadership and we will miss you when you return to Tanzania next year.

Let me just open by saying that this morning is really about bringing policy and practice together. We've heard so far mostly about policy. We're now going to hear about what effective, innovative leadership at the local level does in the face of good policy and sometimes in the face of bad policy. These three individuals have demonstrated that with fearlessness, intelligence and perseverance that they can get the job done on the issue of sustainabilities in their cities.

Let me tell you a little bit about each of the three people we'll be hearing from. Of course you have their C.V.s so I won't go into it, but I do want to say that Mayor Nickels in Seattle has certainly been someone anyone who is concerned about good governance and the environment at the municipal level knows. He's also the leader of the U.S. Conference of Mayors and as the Assistant Administrator just said, he really led a national effort around the Climate Action Plan and is known not just in the United States but around the world among the cohort of really truly global mayors who are doing great work in this area. We'll then hear from my friend Janette Sadik-Khan, the Transportation Commissioner in New York City who has certainly taken a bold action in New York City. She is dynamic and some would say controversial, but at the end of the day, it

appears that her boss Michael Bloomberg has her back and she's going to talk about some of the great work she and the mayor are doing. Finally we will hear from a gentleman I met recently on a visit to Surat in India named Chetan Shah. Chetan Shah heads the State of Gujarat which is a huge, very prosperous state in the northwest of India, and I visited because they are known in India and all of southern Asia for the very innovative work and what we would call a public/private partnership and they call a multi-stakeholder engagement or some such term which really is about the private sector, government and NGOs putting together an action plan to address climate adaptation issues in their cities.

So what we're going to do is have each of our presenters speak to you from the podium and they will stay there until they're all finished because you'll see some PowerPoints and they would be rather translucent here having the PowerPoints projected over their heads, so I think you should just stay there until I bring you all up together. So what we'll do now is first hear from Mayor Nickels.

MAYOR NICKELS: Good morning. It's a pleasure to join you from the west Coast from Seattle where I think the sun is now coming up over the Cascade Mountains and we're going to have a beautiful day back there, and particularly on this subject, two things that I am

passionate about, cities and about how we protect the future and provide a prosperous future for our children and our children's children.

First let me brag for a second about Seattle. We are a very innovative city, a very creative city. If you think about our history, Bill Boeing coming to Seattle and deciding to build airplanes there that led to the 707 that helped lead to the jet age that helped to shrink our globe, Bill Gates and Paul Allen deciding to develop software there and helping to create the information age which helped to shrink our globe, and most remarkable of all, the folks at Starbucks who figured out how to charge $3 for a 50 cent cup of coffee, and at Dupont Circle there was a huge line this morning to participate in that creative act.

We are a creative and innovative city and that's very important because the challenge that we face is going to take every bit of creativity and innovation that we can muster. I will talk a little bit about how we got there, what we're doing, and then I look forward to your questions later on.

First of all, when I was elected in November 2001, global warming was not on the front burner if you will for me. It was shortly after 9/11 and the safety of my community was front burner. Because of 9/11, Boeing was laying off 30,000 people in our area, and another 70,000 ultimately were put out of work, so 100,000 out of work and the economy

was on the front burner. I had been operating under some assumptions. One, I believed as most people did that global warming is an important thing and we should be concerned about it, and I made the assumption that the United States government was taking it seriously and moving forward to try and protect us. I was wrong, and for me the ah-ha moment, not the duh moment, but the ah-ha moment, came in the winter of 2004-2005. It was a dramatically dry and warm winter in the Northwest. In the Cascade Mountains the ski season was cancelled which was a tragedy for many people. And for me as mayor it had other implications, and that is that we rely on that snow when it melts for our water and for our power, and the mayor of Tacoma and I had to go on the radio and urge people to shower together which even in Seattle is a radical idea. So we saw suddenly that global warming wasn't something that was far in the future or far away in places like Arizona, but it was something that was here and now and that it was a local issue. Because when you talk about thinking globally and acting locally, mayors are very good at acting locally. That's what we are all about. We are perhaps less adept at thinking globally. We are nose to the grindstone. We make sure that when you call 911 that a police car or a fire engine responds, that when you turn on the tap water that good, clean water comes out of it, when you flip the light switch, electricity comes at least 90 percent of the time.

So for us to tackle this idea of global warming was somewhat out of our comfort zone, but as the Kyoto Protocol came into law that winter on February 16, 2005, I stood up and said that Seattle would reduce our emissions by the amount called for in that treaty as if the United States had been one of the 141 countries to have ratified that treaty. But I know if it were only Seattle it would be purely symbolic and that it is very difficult to get people to take concrete action for purely symbolic reasons. So I challenged mayors across the country to join with me and we hoped to get 141 cities, one for every country that had signed on, but on Friday I was very pleased that the city of Mesa, Arizona, became the one-thousandth city to sign on pledging to take local action to reduce their emissions by 7 percent from 1990 by 2010. And in fact, a few minutes later, Shreveport, Louisiana, became the first city of the second thousand to sign on. So it is not a symbolic effort. It now represents 86 million Americans in all 50 states and we're very proud of that.

So the question then is, What do you do with that? It's easy to sign that kind of a document and much harder to actually follow through on it. Is it real? It is real, and I'll tell you a couple of stories. One, when we put this forward, the Mayor of Milwaukee, a good guy, Tom Barrett, former Member of Congress, came to me and said, "Mister Mayor, I will never sign that agreement and I won't sign that agreement because Brigs

& Stratton is the number-one employer in Milwaukee and they make internal combustion engines and we don't need more people out of work." Six months later Tom signed the agreement as Mayor of Milwaukee because he had figured out how to talk about global warming in a way that didn't just put that challenge out there or put the burden on the internal combustion engine manufacturer, but talked about the economic opportunities that would come forward.

The four-hundredth city to sign on was Pittsburgh, Pennsylvania, a former smokestack city where they helped build America by making our steel. Seattle today makes more steel than Pittsburgh, Pennsylvania does. They have gone through a remarkable transformation and continue to do so. The five-hundredth city was Tulsa, Oklahoma. Global warming is a tougher issue to talk about politically in Tulsa, Oklahoma than it is in Seattle, Washington, but Mayor Kathy Taylor has created an Office of Sustainability because she watched what she did and she watched the fact that we were walking our talk.

In Seattle, the way that we have gone about this has been, first, for the city to lead by example, and so we have reduced our own corporate emissions as a city government by 60 percent from 1990 levels, and we did it without bankrupting the city. We did it in a way where the services continue to be provided in a seamless manner and that people

are satisfied and they see their city government leading. Secondly, we called together the proverbial Green Ribbon Task Force, a group of civic and environmental and business leaders to advise me on a specific plan for how our city would overall reduce its emissions by the amount called for in Kyoto, and they delivered that plan to me and we are in the midst of implementing that. We know for instance that people who live in cities as Bruce mentioned have a smaller carbon footprint than those who live on the edges of our cities and so the idea of smart growth is an important piece of our strategy, and in Western cities that's not easy. In Western cities we have a dichotomy, we hate sprawl and we despise density, and the fact is you can't really have both. You have to choose what kind of a city you're going to be in. So we led a 2-year conversation about what kind of city people wanted to live in and they said they wanted a 24-hour, 7-day-a-week city, a place with a diversity of people and opportunities and activities, that they wanted to be in an exciting place, and so we started to talk about density as one of the tools to get there. We did away with an initiative that had put a cap, it was the Cap Initiative, on growth in our downtown, a horrible concept, but one that was very popular and was passed by initiative in our city. We rolled that back, we took it out and we increased the densities in our downtown center city dramatically, and we did so as well in our transit centers and in our neighborhood business

districts. So we have taken action to encourage smart growth so that the most difficult transportation decision that someone might have to make is what color shoes do I wear on my walk to work or transit or my bike to work, and we have changed the way people think about that.

Then after we got the plan, we went to engage everyone, and that's not an easy thing. When you think about global issues, I'm a pretty insignificant ant on the hill. So what can I do? What is it that I can do that will make any difference in the global arena? Of course that is a dangerous thing because if people feel powerless to do anything, they lose hope and they give up. So we created a campaign called Seattle Climate Action Now and we engaged people in their neighborhoods, in their businesses, in their communities in this effort. We now have a large group of organizations, Sustainable Ballard, Sustainable West Seattle, Cool Moms. They come together as something called Scallops, and I don't remember what it means other than climate is in it, Seattle is in it and I think Puget Sound is in it, and there are about 80 of these grassroots organizations now and they hold community festivals and they come to other festivals and they share information and they talk to one another about the individual responsibility that we have to take action.

We expanded our recycling programs. We've been a leader in that, but frankly we've gotten a little bit stale in what we had done. So

today, 65 percent of our single-family residence waste is now recycled or reused or simply just does not exist, and 50 percent from our business community, and we're hard on our multifamily which has been the most difficult for us. We banned foam packaging at food service establishments as of January 1. We tried to push the envelope a little further. We took a page out of Ireland's playbook and we put a fee on disposable grocery bags. Seattle, a city of 602,000 people, disposes of 360 million of those grocery bags each year, and so we put a fee on that to extend an economic signal to people, and the American Chemistry Council came to Seattle and spent about $2 million to roll that back in a referendum. They won. They got 53 percent of the vote. They won the battle and they lost and will lose the war.

So we're trying to change individual habits because as well meaning as the federal government is today, and I welcome that because the Bush Administration frankly ignored the issue, and when they finally acknowledged that it existed, they took no responsibility for action, and that was one of the main impetuses behind our movement. So having a federal government that is here to help is great, but frankly, most people don't live here in the Beltway. Most of us live somewhere else, and in fact, most of us live in cities and in metropolitan areas, so we need to build the support for those habit changes at the local level. If we can make a

change in our own life to use reusable bags rather than disposable bags and we understand that that has an impact however small that might be on a daily basis, then we can support those bigger changes that are necessary for us to go an order of magnitude beyond Kyoto which of course is what will be necessary.

Today in Seattle we use less water despite the fact that we are a growing city and we have 300,000 more water customers than we did in 1960, and we use less water than we did in 1960. We have set a goal for reducing our energy use. We own our electric utility. It's the only electric utility in America that has zero greenhouse gas emissions and we're very proud of that. But we are looking to reduce our use in our commercial and our residential buildings by 20 percent and we're using the Energy Efficiency and Conservation block grant to help bring our efforts up to scale in that regard. We will by 2011 have 2,000 electric charging stations around Seattle for electric vehicles. Nissan will be opening their production very shortly and Seattle will be one of their initial markets and we're using some of the stimulus dollars to provide that infrastructure so that people will feel comfortable. And we have been working with the United States Conference of Mayors for the last couple of years and Brookings to define this metropolitan agenda to help the federal government understand that we are not just a collection of 50 rural states

anymore, in fact, we are a metropolitan nation. Most of us live in cities, the vast majority of our economy is generated within our cities and the vast majority of our fossil fuels are burned in our cities, and that if you're going to make a difference on this issue or many others, you're going to have to do it in cities and in partnership with our cities.

The lesson I think is that it is going to take a concerted effort. The policymaking at the federal level is absolutely critical to create a market mechanism that sends a message to all of us about the use of carbon, and the debate over that we look forward to and we will participate in. But the changes that we each need to make in our own homes, in our own businesses, in our own communities are just as important because that will ultimately drive this change.

My generation will not get us over the goal line, but what we can do is we can change the equation, we can change the trend, we can begin to reduce rather than continually increase our carbon footprint. We can decide that we're going to change from a culture of conspicuous consumption to a culture of conspicuous conservation and that once you make that fundamental change, then it is easy for you to find ways to make that happen. I look forward to your questions. Thank you for the kind invitation, for our focus on how we are going to live healthy and

prosperous lives, and how we're going to do so without toasting the planet. Thank you very much.

COMMISSIONER SADIK-KHAN: It's sort of like a kumbaya moment with cities I think at this point in time, so I'm going to not to repeat all the great things that Mayor Nickels just said. First of all, I wanted to really thank Darren for the invitation for being here today, and of course Bruce for hosting us at Brookings, and to talk a little bit about the programs that we're implementing in New York City to build a sustainable 21st century city and bring you a little bit of what Anna talked about in terms of the action that's taking place on the ground.

To get started, I wanted to give you the context. How many of you have heard of PLANYC? So I won't go into detail on that. As you know, the mayor launched PLANYC which is the city's sustainability initiative in 2007 and it didn't start as a sustainability initiative. It actually grew out of a long-term planning exercise to look at how the city could continue to grow and thrive over the next 20 years. What it found was that the only way to secure the city's future was to reduce our environmental impacts and to improve the quality of life in New York City.

What we've seen is that the boom times in New York City from the 1990s throughout most of this decade has really begun to test the capacity of our existing systems, and now our most recent transit program

includes the removal of seats so that people can just be accommodated without sitting down. So we clearly need a new strategy that will lead to a more sustainable future and transportation is certainly one area where we think we can make profound gains in this regard.

PLANYC found that continued population growth in New York City paid huge national and global benefits because bringing a million more people to New York City where we live energy-efficient, transit-oriented lives is much better than spreading them out elsewhere across the United States, and New Yorkers have one-third the carbon footprint of the average American. You can see that from this chart, and if you can see from the top band here, we got a huge avoided sprawl benefit by attracting a million more people to New York City between now and 2030, so as I really like to say, if all of you are really serious about climate change, you really need to move to New York City.

What's the transportation policy that supports these kinds of goals? PLANYC emphasized the importance of mass-transit expansion, mobility strategies like cycling, and congestion relief efforts like congestion pricing. Many of you probably followed our experience with congestion pricing in 2007 and 2008. It passed the City Council. It has the majority support of New Yorkers which is astonishing I think in a short period of time, and it was not enacted by the New York State Legislature. I do think

that it's a matter of if and not when. It's important to note that the MTA only has enough funding for the next 2 years. I think this is going to come around real soon. I will say that my sister cities were thrilled to call to say thank you for giving us the $354 million when we weren't able to pass the Congestion Pricing Program.

We elaborated on PLANYC's transportation themes in our Sustainable Streets Program which is really the first time in memory that the city has actually had a clear, written transportation document with goals and benchmarks for improvement. It was very well received when we released it last year, and we've just released our first annual update which tracks our progress and sets new goals in dozens of different areas, and you can see the overview of the plan's direction. We've got seven different chapters and there are 150 initiatives that we're in the process of implementing and reporting on.

One of the keystones behind our strategy is using our capacity more efficiently, and our prime target in that regard is New York City's bus system which is the largest bus system in North America and it has the distinction of the slowest bus speeds. So I really look at our streets as the tracks for the Transit Authority's system and we're developing a package of improvements to dramatically increase the speed and reliability of those buses. We've seen some early success. We just

started a program on Fordham Road in the Bronx we're calling Select Bus Service and we've paired it with a program on 34th Street in Manhattan, and we're using very simple innovations, off-board fare collection, bus signal priority, painted bus lanes, but the route in the Bronx has already seen huge improvement. We've seen a 30 percent increase in rider ship, we've seen travel times cut by 20 percent, and an unheard of 98 percent of riders supported the program. I've never heard of a number like that in New York City. So I think it's a good start for better bus service in New York and it's certainly much easier to deploy, and importantly so, than new rail capacity.

We've also recently unveiled a Next Bus Information System and we're working with the MTA to roll that out across the city over the next 2 years. Our goal is to develop a broad bus rapid-transit network over time and we've worked with the Transit Authority and they are now including this in the MTA's next Capital Plan. There is simply no other way to bring new capacity to the streets of New York without looking at buses. It takes a long time to deliver rail. We're on our fourth groundbreaking of the 2nd Avenue Subway which just underscores the difficulty of that and so we're looking to move quickly in that regard. And I think it's really critical that as we move forward our buses are going to look better, we're going to have a more robust network with really, truly dedicated lanes and

more distinctive stops down the line. And I think it's really critical because when you take a look -- we just did an annual report on our transit system's performance and what it showed that while New York was able to absorb most of the travel growth during the last 20 years where we had an extremely high population growth and job growth, we're really unlikely to sustain this positive trend without new capacity, and bus is really the most cost-effective way to get us there from here.

So as we know, congestion pricing is on hiatus, but what we started to do is taking a look at how we price our streets, and so we've started a pilot program in the West Village and also in Park Slope to test peak period parking, and so we're charging higher parking meter rates during periods of high demand and we believe that that will lead to a higher turnover of spaces, more parking spaces, less double-parking, less cruising and less congestion, and we think that this has potentially large application across the city. Anna talked a little bit about the importance of cycling. We think this is a really important part of a mobility network. Fifty-four percent of all trips in all modes in New York City are under 2 miles, and so the potential for cycling is great given the right street and parking conditions, and I think if we pair a great cycling program with our great transit program and explore possibilities for car share, we've got a great opportunity to make a dent in vehicle ownership rates going forward.

PLANYC set in motion this huge crash course in adding bike lanes, and we've added 200 miles of new bike lanes to the streets of New York over the last 3 years. We just completed the last mile at the Grand Concourse in the Bronx, and I think with the will to accommodate it and to expand it, biking can really be built into our transportation network with potentially huge returns. If you consider a city like Berlin which is half the size of New York and has a terrific transit system, they get 10 percent of their trips by bike, so it's not off the map to move forward in that regard. And we're moving forward on our map. You can see up here a piece of our bike network in Lower Manhattan. It's a very dense network and it's starting to be really connected and we're going to continue to build it from here. I think one of the key innovations that will lead to the increase in biking is protected bike lanes. This is a bike lane that we put in last year on 9th Avenue in Manhattan and we recently pared it with another protected bike lane on 8th Avenue. This will be the controversial piece of my background that Darren was referring to. But we've seen really terrific progress with it. These lanes are much more comfortable to ride in and we've seen measurable reductions in injuries, there has been a 50 percent reduction in injuries in the quarters where we've put in these protected bike lanes. We've also developed a narrower profile. This is in SoHo on Grant Street, so we're very excited about what we're starting to see in

terms of this greenway through New York City. People also need to park their bikes and so we've accelerated our bike rack program. We now have 6,800 bike racks on the streets of New York, we've doubled them over the last 2 years, and we've also improved the design of our bike parking facilities as you can see. But it's a big issue. Particularly we think that one of the biggest ceilings on cycling to work is indoor bike parking because the Department of City Planning led by Amanda Burden did a study and it found that the number-one reason people don't bike to work is because of the lack of indoor bike parking, and people are just not comfortable leaving their bikes on the streets of New York at least right now for 8 hours hoping that they're going to be there. So legislation that was just passed by the City Council and signed by Mayor Bloomberg, probably the most sweeping bike legislation in the country, requires commercial office buildings with freight elevators to provide bike parking to tenants that want it, and we think that this is going to sustain the steep increase in cycling that we've seen to date. It takes effect in December so we're working very, very hard with the outreach materials on that to make sure that building managers have what they need to make meet these important requirements.

All of these changes are showing results --

we're building the lanes and the cyclists are using them. They're starting to look like they should with, you know, groups of cyclists running down the lanes. And you can certainly see it from our bike counts here, and we expect those numbers to grow over the next year.

I think the next piece of our cycling strategy may well be a bike-share program, and we think that having yellow-checker bikes take their place next to yellow-checker cabs is a good idea. You saw what happened in Paris where after a year, they've got a 4 percent share through the Velib' system.

Both in our emphasis on sustainable mobility and looking at our streets as spaces instead of utilitarian corridors, we sort of changed the way that we look at our streets. My team has developed a rapid implementation program, and so we're literally able to transform pavement into plazas in just a matter of weeks. This is an example in DUMBO in Brooklyn, and this is something that we've done on 168th Street in the Bronx. It not only brings quick benefits, but it lends reality to the notion of a greener, greater city. And I really do think, particularly in New York, people are really tired of waiting for years and decades to see progress. And so we've done a lot with paint brushes and paint and planters, but you can really start to see the heart of our program in the heart of Midtown, which is where we're really showcasing a lot of our efforts.

Last summer we took the Plaza Program to a larger scale, and we transformed sections of Broadway -- this is at 23rd Street. We also transformed Broadway from 33rd Street to 23rd Street, created a green corridor, and these projects really served as great trial runs for a larger project that we just completed that Mayor Bloomberg announced last winter. How many of you have been to Times Square? So you've see those -- did you like the treatment? Well, we're hoping that you'll all write letters to the Mayor and tell him how much you like it because we're in the process of evaluating. It's a pilot program; we're going to be taking a lot of data: vehicle data, pedestrian data, safety data, and he will make a decision at the end of December as to whether or not to keep this permanent. It was conceived around the idea that we can improve traffic at critical intersections and give more pedestrian space in one of the most congested parts of town. And it's a world-famous space, and we think we need world-class streets to match our world-famous spaces. People moved in in about 90 seconds of our putting in the cones. And so it's so far so good, and we'll stay tuned on that.

We also don't think our streets need to be used the same way at all periods of time. We launched a Summer Streets Program last year where we closed Park Avenue seven miles from the Brooklyn Bridge to 72nd Street, and we had about 50,000 people come out to use the

streets to walk, run, play, take Cha-Cha lessons, kickboxing lessons; it was fun, and it was really terrific. We had 50,000 people each weekend come out this year.

We also started a smaller program of weekend pedestrian streets. We did them in fourteen locations across all five boroughs, and it was very, very popular. We think that our streets -- you know, streets for people should just look a lot better than they do right now. And so we're looking -- we run roads and bridges and highways, but we also control a lot facades and sidewalks. And so what we're looking to do is up our game on the design side to bring more visual life and public art to the cityscapes. This is some of the examples. I'll note the Williamsburg up there, which is a David Byrne bike rack. He designed a series of bike racks for us, which was really terrific. And we're also moving forward in terms of upping our game on street furniture; that's in front of Bergdorf Goodman.

So all of these initiatives are tied together in our street design manual, which is really a new operating code for the streets of New York. And the main idea, which is the work of eleven agencies over two years, was to have everybody work from the same playbook. And so, that's -- we've got a new standard for how it is that we design our streets going forward. It's a single point of reference for everybody in the public

and private sector to use. We really believe that it builds sustainability into the DNA of the street network of New York.

So that is a quick overview, Darren, of what we're doing in New York City, and I really look forward to working with Brookings and to working with Rockefeller to transform -- to take these kinds of examples that we're seeing in cities to a larger level as we try to build a more sustainable world. Thanks.

MR. SHAH: Good morning to all of you. And on behalf of the City of Surat, of Amir, and Commissioner -- the Commissioner has extended his sincere apology for not being here with all of you due to a procedural delay aboard flight. So on behalf of Surat City, I am presenting this case to all of you in front of you.

Well, we are thankful to Rockefeller Foundation to enlighten us and get everyone organized and to sit on one table to strategize our mitigation policy for climate change. So this is almost 18 months now Surat has worked on this project, and we hope to have good results in future.

Well, I'll just tell you very quickly about the City of Surat because the Surat City is not known to many in the world because you're not (inaudible) our city, so we always prefer focus on the products and the manufacturing and the (inaudible) in the Mumbai and Delhi. So everyone

knows Mumbai/Delhi so that no one knows -- but, of course, Surat is historically a trade and commerce center for the centuries where the English (inaudible) moguls (inaudible). They entered in there from Surat. So Surat is a place where everyone has gotten into this country and enjoyed the prosperity of the city. So it is the ninth largest city in India, which is one of the fastest growing cities in the world. This is a home to textile whereas we have 60 percent of the (inaudible) synthetic fabric that is nylon and polyester; that is being produced in Surat. And we have more than 600 looms and 450 process houses, more than 50,000 (inaudible) machines there installed in Surat. And, of course, we are the largest producer of diamonds in the world. We buy rough diamonds from South Africa, Russian mines, and then we cut and polish those diamonds and we make a beautiful diamond. So I extend my invitation to all of you to come down to Surat City and buy some diamonds.

And, of course, with all of this we are a peace-loving and harmonious people. So it's a nice city to be in. In fact, along with this we have so many barriers and challenges which I would like to share with you in the city. The city talks about growth in future. Surat City is the -- has the highest growth rate in the country. Whereas India talks about 9 percent growth rate, Surat talks about 15 to 16 percent growth rate, and that's what is a challenge that we have to meet every time for the growth.

And also Surat is the youngest city in the country. Whereas out of 4 million people, 73 percent of people are below the age of 35. And, of course, the majority of the population there moved to Surat for their employment and for the business. So this is what is all about Surat.

Along with this, we are meeting with so many other barriers and challenges. We have a very high urban growth so that we always we are struggling with the water and energy resources. And, of course, the transportation -- that's something which is a big challenge for us. And, of course, there is free land. That's something that I'll discuss in presentation. And, of course, we have the Ukai Dam, which is the second largest dam in the state, and which has got multi (inaudible) conflicting objective where we generate electricity from dam so the hydropower management, they have their own constraint. We have irrigation so their own objectives, and, of course, the flood control. So everyone there tries to keep hold of water in the dam and then release it because they are all affected by the preservation of our rain.

And, of course, Surat was 126 square kilometers two years back, and now it is 326 kilometers, so we are all struggling with demand, meeting demands of the new (inaudible) that we have it. So these are all the barriers and challenges that we have with us. Of course, this is just (inaudible). They talk about 14 percent high in (inaudible) and, of course,

there is uncertainty in (inaudible) the location of the Surat. So basically, this is something which is a factor which really will, in fact, first. Of course, this is -- Surat City we have high impact of climate change and that is particularly in the area of flood. And we have a tree type of trees for the flood. One is -- this is a city that you can see the bumpy line and the river passing through the city with a sharp U-turn, right? And, of course, due to the sea level rise, these are the areas that are the coastal areas, the western part of the city. They're all affected now. For last three years we have seen this impact of the high tide, entering of the water into the city. Of course, this is Ukai Dam. Because of the uncertainty of the rain, they have to release the water in this part of the city that is all affected because of -- in 2006, a flood, whereas 93 percent of the city was affected from three feet of water level to the twenty-three feet water level. And that was a big learning for us. Let me tell you one thing. Because of the participation of everyone living in the city, that is government, private sector people, we cleaned up entire city in just fourteen days.

And, of course, the third reason for the flood is the tidal creek. If you look at entire map, I think the 70 percent of the city land that is not safe land you can see. So this is what the condition there to be with the high urban growth rate and inbound migrant population. We have there are four cross sector impacts. Due to the flood, you know, we are

always struggling with infrastructure and, you know, health related issues. Of course, that's going to increase in the future because of the participation that we have observed. Of course, the delayed monsoon has increased the demand of water and energy sources. In fact, Surat is the only place in the country where we have all kinds of power generation. We have nuclear power; we have thermal power; we have hydro; we have biomass gas generation power plant; and we have (inaudible) base. So we are, at the moment we are energy plus, but of course we are going to be affected by this new growth pattern.

And, of course, our one growth that is a push-and-pull migration would necessarily focus on affordable housing. That's something which is -- because we have a very limited safe land within our city, and we have to provide the quality housing. And this push-pull migration which is coming into the city, that is all resulting in the slum at the moment, and the sooner that's taken up as a challenge to make it a slum-free city. And let me just share with you, we have a scheme called National (inaudible) Reforms Mission and Surat is the highest beneficiary of this (inaudible) reform where we are constructing 40,000 economic houses for the economically (inaudible) and it's on. So I think this may translate to make the city a slum-free city, of course, with all the challenges.

And, of course, the (inaudible) rise. It is because of the (inaudible) rise we have our informal (inaudible) look at it at the creek. So that is always affected because of the (inaudible) rise. Every year that is a small or big flood in those areas, so this has a cross-sector impact. We have seen flood for so many years now, and so that's why Surat City has decided to shift from reactive to the proactive plan because we know we are going to live within the flood so we have to be proactive as far as our exit plan and adaptation and mitigation is concerned. And that's the reason we help enlarge so many key actors in this process so that at least we help everything, all kinds of technology ability of technological knowledge, experience, and then we can focus on this.

And because of this proactive plan for the -- to meet with those challenges, in fact, we have so many stakeholders participating. And thank to Rockefeller Foundation to enlarge so many people and to put them on one table. So we have a government that is (inaudible) municipal corporation, a very active corporation. We have a (inaudible) disaster management. Very experienced people sitting in this organization. And, of course, the industry people that is to whom I be present, that is the (inaudible) Chamber of Commerce industry which is one of the oldest chambers in the state. We have one of the largest industrial building (inaudible). We have participation from them. They also have taken up

the response to work with us. And, of course, academia. We have a (inaudible) working with us on this project. We had a part of the (inaudible) by the Rockefeller Foundation and ten cities and Surat is one of them.

And, of course, we have urban health related people and, of course, the cities and councils, so many people. We are almost at 125 experts from the various walks of life, sitting on our table, discussing and then coming out with an exit plan for the climate change. So, still as of now we have done a lot of activity. Some of them are, of course, we had the cities meeting with the various stakeholders in this process, that is corporation, academia, civil society, and of course, the media. We have a very productive media. They are very supporting to us. And we have found a city (inaudible) committee, which consists of everyone. So there is no one single government body, but we have our decision makers from all walks of life. And, of course, we are passing through or going through development of (inaudible) being completed. And we hold five sector study groups for what will be the impact of the climate change, the flood, water, energy, and well maintained health. These are the five sectors that we identified for our city. And, of course, there are two action groups, that is (inaudible) watch group which will act after we are through with our sector studies. So this is what our hierarchy of working out a strategy for

this. And, of course, we have established a linkage with (inaudible) disaster management authority so that at least we have some constitutional or legal powers or so to implement our projects.

Of course, we are passing through the pilot project in identification process and, of course, one of the best that we are just now talking about is architecture competition. I'll just discuss in the next slide about this. And, of course, we have (inaudible). One is Surat, what we look at in 2025, and that we all (inaudible) and, of course, then sector regions. One is energy in 2025. So of the (inaudible) in the process, so I'll just share with you. It's available on our Website also. And just to make this information available, we have introduced a Website by the hand of Darren, of course, during his visit to Surat; that is Suratclimatechange.org. Please do visit and just give us input this about the climate change process and we would like to have your learning and experience from you.

This is (inaudible) across a community in the city so that, you know, we know what are the (inaudible), what are the (inaudible) that we have it. And most quickly about the adaptation project that we are talking about, architecture and urban design competition which will be a the national level competition where we help, we will locate a flood-prone area or town, a particular area, where they have to design a down-shift

(inaudible) which is flood plane. So this is one of the (inaudible) risk, that is a creek zoning and development planning. Of course, technology that is database online support system. We are thinking of doing GPS mapping for the entire city, each and every property of the city. And, of course, identification of the AIDS and infirm people in the city so that -- which can help us in a rescue effort and other activity. We have challenges that we have already discussed, but of course, if you would like to have an encryption platform for the information technology process exchange, how can we create a platform where we can exchange this. And this is something which is in need of a (inaudible). And in some other cities, they have recent interest in doing something we would like to learn from them. And, of course, we have second (inaudible) that we would like to share with other cities in the country. And, of course, I was asked to highlight this point that a city's initial exit plan, how state and national policy can help cities. So this other -- I mean if you go to the fourth point, there is a constitutional amendment, 74th Amendment, Act 1992, has empowered urban local bodies to perform effectively as vibrant democratic self government. This is something which is very revolutionary in India, and I think because of the data, Surat has been able to do much to fight with this. And, of course, the points you see in the red color, of course, that is in process, and we are, of course, talking about the initial platform

for the information technology process exchange about the climate change.

So, of course, the next step which I believe is the last light. So discussion on the (inaudible) studies output , this is what we're doing on this. And, of course, creating a wellness -- because we do a lot of things the technology is here, come out with a lot of input and insights, but that needs to be convenient to the people, communicated to the people, so that they can be a part of that patient program. And, of course, the creating of (inaudible) people population about the city is an issue, that's what is our next step. And, of course, media, the most powerful media, so that we are tightly engaged with them. And we have a very good synergy with them and, you know, they are very informative in a way. They communicate to the people what should they do, what should not be done. And, of course, the communications plan for the disaster management. That's something where the technology plays a role. So we are preparing for the change to come, and for the change that is here. And let's -- in a game where one is a loser, one is a winner, but lets all of us together, lets create a dream where everyone wins. Thank you very much.

MR. WALKER: So we are going to have a Q&A, but we want really for this to be a dialogue with the audience. To kick things off, I

will just ask one question, and then I'm going to ask you in the audience to engage with this panel.

I guess I would ask my American colleagues, what is it that you heard from the Assistant Administrator this morning that most excites you? And what did you hear that concerns you?

MAYOR NICKELS: Well, let me start. In 2005 I attended the meeting of the parties up in Montreal. It was a few months after we had announced our commitment to Kyoto in Seattle. We were gathering; we'd had a couple hundred mayors sign on. Governor Schwarzenegger in June at World Environment Day -- of the first time that had been held in the United States and -- pledged to reduce emissions by 50 or 80 percent by 2050, something I think I enjoyed because he and I won't be around then. But it was beginning to percolate at the grassroots level, but our government wasn't at all involved. And our message at Montreal was, there is intelligent life in America, and we will re-engage in this issue despite the best efforts of our federal government. And today the federal government is engaged in the issue. The federal government has said, the President has said, "We believe that global warming exists. We believe it is human caused. And we have a moral responsibility to act." So that is a huge change. That is a breath of fresh air coming from the East Coast. So that's good.

The thing that would concern me was a comment that she made about cities still being involved, because I think when the federal government engages sometimes, they believe that they are the only game in town. And in this town, that's true, but in most of America, that isn't true. And to be able to integrate the federal effort, the top-down cap-and-trade with the grassroots efforts that will bring the public along when those large, difficult decisions need to be made, is absolutely critical I believe.

MR. WALKER: Thank you. Janette Sadik-Khan, you have been a very innovative commissioner, and some would say you have disrupted the status quo in New York.

COMMISSIONER SADIK-KHAN: That's not hard.

MR. WALKER: What would you say has made it possible for you to do some of things you have done? Certainly there are people who want to be able to drive very quickly through Times Square, and you have stopped that. Certainly there are people who don't like turning onto 43rd Street because 43rd Street now requires them to turn there if they want to get to the Tunnel. If you are to continue with this kind of behavioral change, what do you think the barriers are going to be? What do you think you're going to have to do to continue to innovate the way you do? And what are the lessons from some of the battles you have fought that you can share with the audience?

COMMISSIONER SADIK-KHAN: Well, I will begin to answer each one of those twenty questions now. I think, importantly, Mayor Bloomberg created a really good framework for the public to understand the challenges that we face. And the PlaNYC Program, you know, was the result of two years of working with communities around the city. And everybody came around tables and talked about what the challenges were in a whole variety of areas. And there are 157 initiatives in eight different disciplines in terms of what we need to do to plan our way, to plan a better future, so that when we open a window in twenty-five years, we actually like what we see. And so I think making it intelligible to people was an extremely important strategy, and allowed us at the Department of Transportation to work within that framework; and so all of the initiatives that we're working on right now are very much in line with that building a better future. And so we've been able to make a lot of progress because there was consensus that we simply can't just wish our way, you know, out of the situation that we're in. We're going to have to plan our way out of it, and we're going to have to do things a little bit differently. And that means, you know, getting more people onto transit, and it means trying to get the maximum efficiency out of our network which we are not doing to date. And so we're looking at different ways of delivering the program so

that, you know, when 9 million people are here in 2025, it's a better place than it is with 8.2 million people today.

Now we've done a lot quickly, as you know, and I think that it has gone a long way to bringing, you know, both sides of the table, you know, out. So that you've got people that are very excited about a lot of the initiatives that we're doing, and then there are a lot of people that are a little concerned because we're sort of -- we're not at that cultural tipping point yet where everybody is going to get onto their bike and, you know, walk to work, et cetera, et cetera. Buy I think they understand the importance of doing that. So I think the challenge is just to continue to show progress the way we've been doing, and people calm down after they've started to see it. So a lot of the animosity that there was about the bike lanes, that's kind of gone away. A lot of the fear that was associated with Times Square in terms of creating these different public plazas, you know, I think commercial businesses are starting to recognize that foot traffic is retail revenue. And so the more foot traffic you've got, you know, the better it is for your bottom line. And so, you know, it takes a little bit, you know, to get there from here, but I think the people are starting to do that. I might note, though, that in terms of the characterization of Times Square, we actually reconnected 7th Avenue for the first time in 200 years so that it's moving better than it's ever moved before. So we actually are

improving the experience for motorists as well as pedestrians and transit riders. We've created three and a half acres of new public space in the heart of Midtown Manhattan, but we didn't compromise the transportation network in any way. And again, it's -- I've got the fortune of working for an incredibly innovative mayor who gets it. And if you show him the data in terms of what you're trying to accomplish, he will stand behind you no matter how strong the gale force winds may be.

MR. WALKER: Thank you. Chetan Shah, we I visited Surat, there were two things that struck me as an American. Obviously, you have a -- you're a big democracy, and I saw a lot of process which we Americans are quite familiar with; it's just that in India there're just so many more people at the table. I guess my question for you is we in this country sometimes feel we have too much process. We also have what you have in India, which I also heard a lot about, which is the concern of the second-tier cities, like Surat, who stand in the shadow of Mumbai and Delhi and the larger cities and sometimes feeling like also-rans. And that the national government is quite focused on the larger cities, particularly Mumbai and Delhi. How do you deal first with the issue of process? How do you as a private citizen and as a private businessman in this multi-stakeholder initiative, how do you play a role in helping to move the agenda forward? And how does the city ensure that its voice as a city of

over 4 million people is actually heard in the broader discourse around cities in India?

MR. SHAH: Well, in fact, of course, you are right. In India, the second-tier cities, they're all shadowed by the larger cities -- that is Mumbai, Bangalore, Delhi, and Calcutta -- but now I think the government, that is the central government, has also -- in fact they have taken a decision to focus more on our second-tier cities because those large cities they have reached their saturation level. They cannot do much in those large cities, and of course whatever little you can do for those large cities that is not visible now because of the demand in resources.

So I think -- and in a way, if you go through some research, I think the second-tier cities, they are growing so fast. So I think it is high time for government and, of course, the institutes like us, private institutes, to do the proactive planning for the second-tier cities so that we don't reach a Mumbai or Delhi kind of level. So I think there is willingness, alertness, in Indians. And, of course, the synergy with the government; that is all helping us in meeting those challenges. And we feel like, you know, we are fortunate to have a good bureaucracy in the country and they are all aware about the implication of the climate change. If they don't do it there, know of the responsibility and their guide to the political ring of our country. So I think we are fortunate to have a Prime Minister

like Manmohan Singh who is, I think, visiting U.S. this month. So we have a very good people in our government, in industry, and of course in the regions also. So that is all helping us in meeting with those challenges. So I don't think that we are struggling. We are doing well, and I think Surat in India, the second-tier city, will perform better than what the largest (inaudible).

MR. WALKER: I'm seeing hands up in the audience already, so we've got some mikes, and I will start I guess with the distinguished Scott Bernstein from Chicago.

MR. BERNSTEIN: Thank you, Darren, a comment and then a question. Listening yesterday to the international discussion, I lost count of the number of times that the word "urbanization" was used as a dirty word. And it's almost as if it's a disease, but I think what's being said is that ultrahigh density and poor living quality that's producing slums is a problem. In the United States, we're talking about urbanization in the way that Janette was with her slides showing the net benefits, and Mayor Nickels was showing of higher density producing lower resource intensity. A hundred years ago, though, in the United States, urbanization was a dirty word and people were furiously pushing for decentralization solutions and throughput solutions and other kinds of things. Rockefeller, by the way, paid for some of those early studies, but that's okay.

The second thing, though, that happened, I think, is we learned how to urbanize in smarter ways; is we learned that it also pays. It reduces the cost of living. It increases the tax base. It creates jobs. I didn't hear anything in these three presentations, and I know you've all thought a lot about managing the climate change trajectories that you presented to produce net economic benefits A, and B to do so in a way that would be more inclusive, that would take on the tough economic problems for those that aren't as well off as they should be, and perhaps to produce a more prosperous network of cities. I, too, was disappointed that Lisa didn't address this in the EPA comments, and hopefully we can all push the new Administration to do it. But you've all done some thoughts. I've read the work that PlaNYC did on the economic benefits. Maybe you could all say something about that and put this in context because if sustainable development is about environment first and maybe there'll be a little something in it for our great, great grandkids. I don't think it's going to work, but do you -- I mean, do you think that in real time we can start to produce inclusive net economic benefits?

MR. WALKER: Mr. Mayor?

MAYOR NICKELS: Well, absolutely, and I think former President Clinton may be the most articulate on this issue where he points out, I think rightly, that if you simply frighten people over and over again on

global warming and the peril that it presents, you're not going to inspire them to action, and you may have the opposite effect from what you want. But if you start to talk about and realize those economic opportunities, then you can inspire people.

And so there are a couple of areas where we are focused. We are beginning to brand Seattle as the "green building capital of America." When President Obama was a candidate, he wanted to visit a green business when he came to Seattle, and we took him to a company called McKinstry. McKinstry began life 70 years ago as a plumbing and heating contractor and because a HVAC contractor and a mechanical contractor. They're now an environmental engineering firm. They won a $5 billion contract with the federal government before President Obama took office to green federal buildings. They have several hundred employees in Seattle, both traditional factory employees and engineers and architects, and their average wage and benefit package is $100,000. So those are real green jobs. When we talk about conserving 20 percent of our energy in our residential and commercial buildings, we are training young people who have been left out of the economy to be able to conduct those energy audits. And we have just begun with the energy block grant for a demonstration project of 5,000 home energy audits. We are training them then to install the conservation measures that are

identified as cost effective, and so we are creating those green jobs. And that demonstration project we hope will lead to a system where every time a house is sold or a building is sold, that an energy audit is either mandatory by law or mandatory by the market demanding it; and, therefore, that is an ongoing body of work that will be available for those folks.

So I think there are real economic opportunities and one of the reasons that we in cities were pushing as hard as we could for a federal presence, was the sooner we get to that, the sooner we recognize that, the more competitive we will be globally. And the more the opportunities will come to people in our cities rather than having us import that knowledge or import that technology.

COMMISSIONER SADIK-KHAN: I think you can look at it from two different perspectives, which is what you were sort of alluding to, Scott. One is this sort of green jobs piece of it, which the Mayor talked about, and so whether that's looking at what you're doing in terms of retrofitting buildings, green jobs in a variety of context, that's one important piece of it. And I think the other important piece is looking at the economic benefits associated with the investments that we're already making through things like, how do you capture what it means in terms of transit-oriented development? What does that mean? What does that mean to

the pocketbook of the person who buys into that? What does it mean if you, you know, take -- if you have access to transit, and, you know, so you've got a 30 percent increase in, you know, your household income because you don't have to have a car? We need to figure out different ways of talking about it, and as the Mayor said, you know, scaring people to death with climate change -- I was talking to someone from the Building Museum last night, and they said their next exhibit was going to be something like "disaster," "planning for disaster" or something like that. And, you know, I understand that, you know, climate adaptation is not as sexy as "disaster," but by the same token, it can scare people away. So we're starting to get a body of data that's going to allow us to do that. You started to see what we've been able to, you know, capture in terms of streets that do, you know, have more pedestrian focus, whether it's in Nanjing, whether it's in, you know, Glasgow, whether it's in New York City, and so we can capture the benefits to the business community of that, and that drives a different investment strategy, similarly on transit-oriented development. What does that mean? Those housing units have captured, have maintained their value at a time when the housing market has sort of dropped. So I think we need to take pinpoints from a variety of different sources to try to make a much more effective case for it and continue to press for particularly the affordable housing piece. And I was

encouraged at the national level to start to see, you know, HUD, EPA, and Energy start to come together, you know, and coordinate in a way that's not siloed because that's what's happening on the ground. And that's the only way we're going to really leverage a better future, I think, is when we start to look at it from a comprehensive perspective.

MR. SHAH: Well, in fact, as I shared in my presentation about the growth and economic activity and, of course, the green (inaudible). I would like to bring (inaudible), the largest industry that we have is the diamond industry which is a nonpolluting industry and there is no, you know, carbon emission and smoke coming out of those factories. (Inaudible) employs about 1.5 million people in the industry. And, of course, the textile is the second largest where they have all (inaudible) technology that the government has asked them to implement, so that is also the air pollution which is not a concern for us. (Inaudible) the corporate houses where they have (inaudible) technology. They're implemented. So I think when it comes to this sort of growth and the high fast-track growth, providing them a proper legal condition and quality of life, housing, water, and of course, the proper drainage system. If you look at all the component, I think we are trying to get the best of technology available with us. And we are learning from other cities (inaudible) and they know. Basically we have different parameters which

are very unique kind of conditions that we have. So we are in the process of our learning from other cities and then have a concrete plan for balanced development of this. I think I answered what you asked.

MR. WALKER: Yes, ma'am. Please tell us your name.

QUESTIONER: Hi. My name is Christine Corella. I was stricken by all of your comments and thinking about, as the previous question had asked, urbanization's the fast growth rate of cities really, I'm curious to know about the fast growth rate in disparity in cities. And I think climate change and all these plans you discussed might provide an opportunity for social inclusion and access. So in Surat, those communities that are most vulnerable are not just the slums. In New York City, those that lack transportation are not just those that are unemployed. And those that live in the Sound are not those that are historically marginalized. So I wonder if you can talk about the ways that climate change planning might also include opportunities for social inclusion and access?

MR. WALKER: Mayor?

MAYOR NICKELS: Well, I think that's an extraordinary part of this opportunity. And so as we begin to look at the economic opportunities that are opened up, we're trying to figure out how do we

make sure that people who have been historically left behind in our economy are not left behind when this energy revolution occurs.

When I became Mayor -- and not for this reason, but -- I started something called the Race and Social Justice Initiative, and it recognizes that Seattle is a much more diverse place than it was thirty years ago when I was a young man in the city; that of the 602,000 people in the city, 120,000 were born in another country. And we're becoming more diverse day by day by day. And if we figure out how every one of those folks, of those 602,000 souls, feels and included as a whole, participating member of our community, economically and socially, we're going to be a much stronger city than if people feel left behind and have very significant reservations because of the feeling of injustice. So we're working everyday on that.

MR. WALKER: Thank you, Greg. In New York, where there's always been a concern about the inequity between Manhattan and the rest of the boroughs. Big issue, right?

COMMISSIONER SADIK-KHAN: It is a big issue. And the Mayor's put into place a pretty concerted effort. He's got a big, five-borough, economic development plan to address the issue of distressed neighborhoods. From the transportation perspective, we've done most of our work taking a look at where we need to make investments to make it

easier for people to get around. So where are the underserved areas vis-à-vis transit? Because that's a really cost-effective way to get people around? It's money in your pocket if you don't have to own a car. So what we're doing now is -- the investment strategy that we've got right now in bus rapid transit is targeted to underserved and distressed communities. And we think that's one of the best ways that we can make use of, you know, the existing infrastructure dollars that we have to make it a more environmentally just community. So we're working with City Planning. We've got -- for the first time actually -- this week we're convening. HUD, HPD -- our housing agency -- the City Planning agency, the Department of Transportation, and the Department of Health, to come together and put all of their maps on the table. What our investment strategy is and what their investment strategy is, so for the first time to have a coordinated approach. Everybody knows what, you know, one another is doing. That's why it was so well received. It's happening at the national level because that type of integrated planning is starting to come down. And, you know, we'll be able to make much better use of it when we have a more strategic approach to what we're doing. But really what we need to do is get the infrastructure built in place to make it easier for people to access opportunities.

MR. WALKER: Yes, Neil Pierce in the back. Use the microphone please.

MR. PIERCE: I'd like to ask a Bruce Katz-style question about metro areas. It seems to me a lot of the debate and the activity is happening in center cities, yet a huge portion of our population lives in other jurisdictions in the suburban areas. How does one overcome and work on that issue most effectively? I think Mayor Nickels may have something to say on that, but it's a problem in every metropolitan region where you have generally the center city taking the leadership, but often suburban constituencies that are not. We did a story, a report, on the Charleston region a couple of years ago. And Mayor Riley had a wonderful plan, but then we noted that Charleston City was less than 20 percent of the regional population. I think this is a really critical issue to be dealt with.

MAYOR NICKELS: It is, and in a former life, I was for fourteen years a member of the King County Council. King County's 1.8 million people; 600,000 of whom are in the city limits of Seattle. And we put into place a growth plan that said that in the rural areas, we will discourage any further development and we will instead focus the growth and the investment back in the urban areas. And I was accused when I was a member of the County Council of being antigrowth. And the

homebuilders and folks actually tried to defeat me a couple of times as a result of that. I became Mayor and they discovered that I wasn't antigrowth; I wanted growth in the right place. And so we did undo the Cap Initiative that had been put into place years ago and have put significant new densities around our transit stations and in our neighborhood business districts.

And as a region, we have upheld that urban growth line, and so there is energy in downtown and center city Seattle, in our neighborhoods, and also in the close-in suburbs. And in the suburbs that are more on the edge, the development now is being focused on the transit centers, so we've built a commuter rail system. And there's a small city called Sumner, which was known as the place where you went out to buy a cheap car, and they actually are using the term "transit-oriented development" around their commuter rail station. So I think we've changed the idea of what urban development in our region looks like. It isn't looking outward to the next ring, but rather it is concentrating growth within the city.

We've seen a huge investment. In 2006 we set a record for investment in our city of about $2 billion worth of permits issued, and in 2007 we broke $3 billion. So there really is a lot of energy being focused

on making the city a place not only where you come to work, but where you live as well.

COMMISSIONER SADIK-KHAN: I think there's been a lot of work on mega regions, and so I know Brookings and Rockefeller, a lot of major foundations, have put a lot of energy behind how do we take a look at the next twenty-five years and where is the growth going to happen? And so you have these big blobs actually on the East Coast where Boston blends to, you know, New York City blends to Philadelphia. I'm not sure I'm with that blob theory, but I do think that we need to take a look at how we grow. And what's starting to happen in the New York region is, you know, the city plan is there, but we're starting to work much more closely with more of our regional partners in Nassau, Suffolk County, the Tom Suozzis of the world, where, you know, they're really dealing with the challenges of the first suburbs. And so how do they channel the growth? And how do we work together to create an integrated system that works? And so for the first time, NYMTC -- which is the New York Metropolitan Transportation Council which is our metropolitan planning organization -- actually came together with a unified program of investments -- what we want to see over the next twenty-five years -- that was unanimously agreed to. So to get the New York/New Jersey region to agree on what the investment priorities are for the next twenty-five years so that we're

able to handle the growth that's expected to come in the region; that we channel it in a way that we want to see that works for us in a sustainable way, I think is a good start toward that issue that you're highlighting because we really absolutely have to come together because this siloed effect, the siloed approach, is really destructive as we've seen in the past.

MR. WALKER: Yes, we have a question here.

MR. NELSON: Thank you. John Nelson with Wall Street Without Walls. I wanted to ask about New York City. The Mayor had a proposal to have every building over 50,000 square feet meet energy-efficiency standards, and had a proposal as well to try to leverage some of the stimulus money as a fund to help landlords make those changes. And I think it's hung up in Council, but I think that's a really good model of providing some financing as well as a little bit of a stick to make a huge difference in -- I think it's about half the buildings in the New York City. What's the status of the deal?

COMMISSIONER SADIK-KHAN: I don't think that it's changed. I think we're still caught up in City Council negotiations.

MR. NELSON: How come? I mean, what are the issues? Real estate?

COMMISSIONER SADIK-KHAN: There's, you know, we're working very closely with the real estate community on a number of

initiatives on the green building front, and so it's part of a comprehensive package. And when you're negotiating a comprehensive package, you know, it can take a little longer to pop out. So we're hopeful that we'll be popping out sometime soon.

MR. WALKER: A very diplomatic answer! Speaking of which, I see (inaudible) from the U.N. office in New York. Please?

QUESTIONER: Thank you very much. I think we are all here because we are all interested in urban issues, and we all are convinced that the future is urban. Yesterday, today we are still talking among ourselves, and Copenhagen is tomorrow. Negotiations are ongoing. What are we all doing to convince the negotiators to really pinpoint the world of cities in climate change? Because if this is not included in the negotiations, then we are going to lag behind without any mention of cities in the negotiations process. So is there any effort either through the cities which are mentioned or anywhere so that we can channel our concerns that we are talking about the future of the human lives that we are talking about to be included in this negotiation documents? Thank you.

MR. WALKER: A lot of concern, not just here but in many floor I've been in that cities will be missing -- the theme of cities will be missing in the outcome of Copenhagen.

MAYOR NICKELS: Well, I mentioned that I attended the meeting of the parties in 2005 as a voice for U.S. mayors that we were engaged in the issue even if our federal government was not. And I will be leading a delegation of mayors to Copenhagen as well, and we will be meeting with our colleagues from around the world and sending exactly that message.

A tool that the federal government has provided in the stimulus package, but not on an ongoing basis, the energy efficiency and conservation block grant, it has been where we have focused our conversation with the federal government. That their investment in our capacity will yield results so that we aren't coming into this from ground zero, but we are coming into this as a country where a lot actually has happened on the ground; it just has been started as a grassroots rather than at the federal level.

So we are banging away on their door every day, and fortunately, with President Obama and his Cabinet and his Administration, they understand the role of cities and are supportive of that. And so I think the American voice will include cities in their role.

MR. WALKER: Yes ma'am.

QUESTIONER: Hi. Welcome. I really appreciate all of your participation and the hosting. Thank you.

I'm a green jobs consultant for the Department of Labor, Office of Job Corps., and I'm curious about how you all have seen education and training opportunities develop, and any strategies and partnerships that have come about to help support the growth of green industries?

MR. WALKER: A great question because I think there is a lot of talk about a green economy and green jobs, and I think it's important to lift up and elevate those experiences where they really have been created and can be created.

MAYOR NICKELS: I think that's absolutely true, and it's one of the -- there is -- you'll hear from mayors the desire to break down the federal silos, and now that is coming from the Administration as well. And we're seeing with the Department of Housing and Urban Development and Energy and EPA and Labor, real action at the secretary level to start to have those conversations.

One of the frustrations for us is that all of the programs are still in those silos. And so the relationship is one where we have to come and show how needy we are for this silo or how needy we are for that silo. And our larger message to the Administration and to Congress has been don't think of cities as needy places. Think of cities as very sophisticated economic communities. In Seattle, we along with Toulouse, are the

aerospace centers of the world. Along with Silicon Valley and Mumbai, we are among the information technology centers of the world. The University of Washington is the number one public research university in America with most of that research in the life sciences. So we know how to compete in those areas. And if you invest in us, invest in our physical infrastructure and our human infrastructure, we can compete with anybody in the world. And that's a different way of thinking about how federal investments are made than what is your unemployment rate? How many people do you have way below the poverty line? What is your crime rate? But if we start to think about those as strategic investments -- and I'm not just saying to people who are successful, but throughout our country -- I think we can do much better. And it's very good to see the federal government beginning to understand that and beginning to talk across the different silos about how we integrate that investment.

MR. WALKER: Janette?

COMMISSIONER SADIK-KHAN: I think it's always interesting the green jobs piece. What is a green job? You know, I could say that every, you know, that the entire transit system is, you know, one big green job. So, you know, I think that it's really important that when we look at this, we look at what we mean when we talk about that.

And I think that, you know, there's a lot of opportunity I think in the retrofit of buildings and in new building construction and so there's a huge piece there. There's a lot of opportunity even in smaller arenas like, you know, a bike-share program that could be, you know, a green jobs program on the side. There's a lot of different opportunities there. But I think that, you know, as the Mayor points out, it's been difficult in terms of the financing to get what we need to get to the table because we're so busy trying to get, you know, to apply to these different federal programs for a variety of different funds, to just get the basic infrastructure taken care of. So I've been very impressed.

We participated in the C40 Cities, and I've learned a lot there in terms of what they're doing on the green jobs front. And I think there are a lot of lessons that we can learn, whether it's a green jobs program through the energy audits that they do and all of their housing and commercial buildings, et cetera. So I've been looking a lot at international examples of what we can do to bring that experience to play here.

MR. WALKER: And from the back.

QUESTIONER: Hi. I'm (inaudible) from Brookhaven National Laboratory and thank you to Brookings Institute and Rockefeller Foundation to bring all international cities alike on one table.

Interestingly, we all are talking about jobs and green economies and all. So with this kind of collaboration between cities in the longer term, like cities can talk to cities in India, China, and other worlds as well, and bring the same green economic concepts to them. So one is sharing best practices what U.S. cities have done and leap frog, I mean have the international cities leap frog to the levels of new technologies.

And second is even cities in U.S. can benefit by having their businesses go to other cities in other worlds and gain economic benefit out of it. So one question is how do you see on all three levels these things happening? And second question is if some of your cities are doing something about it or these can affect you? Thank you.

MAYOR NICKELS: Earlier this morning I shared with Amy a report that we just did having signed the 1,000th mayor up to the climate protection agreement, twenty mayors basically telling their stories of how they got involved and what they've done to follow up. So we are sharing best practices. I think that that is a very important piece of this. We don't have all the answers, and we barely have the questions sometimes in our own city.

Darren was able to -- sent a very kind invitation to come to Bellagio to talk about some of these issues. And while my staff discovered that my schedule was too busy, they were able to free up their

own time to go and compare notes with others about how you build this sort of sustainable city. So -- and we've sent our folks to Copenhagen and other places around the world, and we have 21 sister cities that we share that kind of experience with.

So that's absolutely the whole philosophy behind the U.S. Mayors Climate Protection Agreement is that there's strength in numbers, that mayors all have egos except in Mayor Bloomberg. And so we all want to make our mark on this issue. We want to find a unique way that we can move the ball forward, and we learn and steal ideas from one another very freely.

COMMISSIONER SADIK-KHAN: I think that the C40 Cities has been a really great way to collaborate on best practices, and I've learned a lot when I've gone to those conferences. I've learned a lot through an organization called Urban Age where people go around and learn from one another. What works, what doesn't, and share ideas.

In the United States I had an organization called the National Association of City Transportation Officials, which is working on transportation sharing best practices and has been very successful in terms of looking at what works, whether it's biking, walking, transit, ferries, you know, capital reconstruction work. And that has been a really great, you know, learning exchange. In fact, starting tonight -- here's an

invitation to all of you -- October 7-9, we're hosting an International Pedestrian Planning Conference called Walk 21 where people from all over the world are coming and sharing their stories about how they are designing and building walkable communities. And from a variety of perspectives, it's been a very great way to learn, you know, how other people are doing it and how to overcome different kinds of challenges. So I think that kind of sharing is critical in the years to come, whether it's on the national, you know, international level, you know, all the way down to the most local of projects.

MR. SHAH: Well, in fact, in Surat what we had was in the last years is we have received almost about 85 cities from India coming into Surat to learn the best practices that we had and looking at the growth rate and the challenges that (inaudible) and other climate change-related issues. I think -- we have a three-layer system; one is a political visit so that politician and this is (inaudible) they do visit to city and then they learn something from the city and then they try to implement, they try to create a policy for that city. At the same time, then, another layer is the bureaucratic level, those who are going to implement this day will have a hands-on experience on this, and, of course, the technologies.

In the same way as Surat, we go out and learn from the other cities when the (inaudible) fifteen days back (inaudible) and then

make some collaboration with the (inaudible) group that they have a lot of activity in place of the urbanization and the climate change. I think your question is right, the city-to-city collaboration and the dialogue is something where we help to create a platform internationally, so it is not region specific, but we help to have informational platform that we can have a dialogue with those cities. And I think the mayors conference that plays a key role in this, so they have a lot of responsibility on their head.

MR. WALKER: We have time for one final question. Yes, the lady here in the middle.

QUESTIONER: Hi. My name is Brittany Bonnett and I've been working with the Higher Ed Institution and Urban Institution in Philadelphia, and we've been dealing with our climate action plan. And one of the issues we've dealt with is a lot of our emissions come from coal, so about 80 percent of our emissions are from our utilities, and only a small percentage are actually from our transportation. And so in trying to get involvement from our senior staff in lowering our emissions, they really want to see the larger impact on the utilities. And yet you also have to balance the impact on behavior change, getting people to recycle or to walk to work or not to drive, et cetera. So my question to each of you is how do you balance in implementing your projects and your programs the big impact, you know, involved with utilities or large infrastructure

improvements, et cetera, with also the smaller impact but more visible and more people can feel it more behavior change or education campaigns? And how do you balance that and how do you sort of push that through or get that to be implemented so that everybody can feel the effects, not only see the lowering of emissions, but also people can be educated on how to lower those emissions?

MAYOR NICKELS: Well, this issue was going to require very different answers in different parts of the world and in different parts of our country. So in Seattle, we have zero emissions from our electric utility, owned by the city, but we have hydroelectric power. So it's an easier thing for us to do. On the other side, when I try to lower my emissions, I've got nowhere to go on the electric side. I've already gotten there. So I can begin to electrify my transportation system. I can move people from gasoline-powered automobiles to electric-powered automobiles and have a big impact with that. I can open up my first light-rail line, which I did on July 18, and get people out of those cars. We can expand our electric trackless trolley and build street cars and in other ways. So it's a different equation, and that's one of the reasons why we think a different federal approach makes sense, to recognize that each area's going to have its own strategy for success.

But I think fundamental to all of it is going to be changing habits. We are each and every one of us going to have to change habits in our own lives, in our own homes. And if we can make that an empowering exercise, to show people the effect that they have had as a result of that and then how they've influenced their neighbors, how their community has influenced other neighborhoods, and how their city has influenced other cities, then I think that we will build the momentum that's going to be necessary for the very, very difficult economic and social decisions that will have to come down the line.

So I think that changing of habits, proving to myself that I can go from paper or plastic to a reusable grocery bag -- it took a little while. It took -- actually, it took one blog entry in our local newspaper to get me to change. We had carried the reusable bags with us for a long time and had forgotten them consistently. But once it got into the blog that one of my supermarket checkers said "Well, the Mayor still takes plastic," it hasn't happened since. So I guess holding each other accountable is probably a part of it as well.

COMMISSIONER SADIK-KHAN: I think they support one another. They're mutually supportive, the short-term and the long-term piece. When the Mayor put out PlaNYC, it was obviously tailored to New

York City. And I agree with the Mayor that there're going to be different solutions for different places.

But I think the important piece is to actually create a plan, you know, take a look at what's your mission's budget? What are your overall goals? You know, what are the specific challenges that you face? And then come up with strategies whether it's in water, electric, power, you know, transportation, et cetera, green space, parks, to figure out what the panoply of strategies tailored to you will be. And then I think it's really important -- and the Mayor touched on this just in terms of the plastic checkout -- that you show some immediate success. You have to show some examples of what this actually means. And so that's partly why we're trying to do as much as we can, as fast as we can, with building a better bus system, literally just painting the streets red, you know, and doing something very, you know, low tech, just to get it started so people can see it. Wow, buses can move faster, or wow, you can have a park here, or, you know, any number of things. Wow, we can green up these buildings. We can just paint the roofs a different color and look at what happens here. And so there starts to be a sense of wow, we can actually start to get some things done. And I think New Yorkers are starting to feel like, well, they're starting to, you know, they're involved in this and they're not just, you know, sitting down and just, you know, sort of business as

usual. That there's almost a pride associated with us being sort of a greater, greener city, and communicating that. And then underscoring that with specific projects, I think is really important to do so you tie the local to the global.

MR. SHAH: I think what Mayor tried to say like each and every place have their own characteristic, and that they have to have their own plan. In India, and particularly in Surat, we are a very humid country. The temperature is high, so cycling, one of the most popular projects that here I can see is, you know, that's practically not possible in our country because, you know, if I can't ask a businessman to cycle down to the office, and, you know, then again, he would not be able to work because of the pressure and the temperature and the humidity and all.

So I think each and every city will have its own plan and, of course, changing the habit is something, but the cycling we are focused only on the students, the school-going students that can cycle down to schools, but of course, not to the business level. On the business level, industry level, we are looking for the willingness on the industry, but on the upper level, not changing the individual habits, but at least, you know, you have to have higher side willingness so that at least, you know, you can help carbon emission and all.

But I think the strength we can see in India is participation of the people and the convincing. The people are, you know, if the government says you do that, sometimes, you know, there is (inaudible) at least. Government communicates the same thing to the organized and like Chamber of Commerce or some other. That's the most effective way of doing business, and that we have a couple of stories also. So I think, of course, the changing of habit is something very difficult in the country, but it is not impossible in India.

MR. WALKER: Thank you. I think it's time to bring this panel to a close and to thank our distinguished panelists for sharing with us.

* * * * *

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

Notary Public in and for the Commonwealth of Virginia

Commission No. 351998

Expires: November 30, 2012