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P R O C E E D I N G S

MR. PIPA: Welcome, everyone. It's great to see everyone. Good energy in the room, good packed room; I love it. Thanks for coming today. My name is Tony Pipa, I'm a senior fin Global Economy and Development here at the Brookings Institution, and I'm pleased to welcome you to the conversation we're about to have on the opportunities and the challenges for U.S. cities that are offered by the sustainable development goals.

Before I go any further I want to thank our co-sponsor for this event, Carnegie Mellon University's Heinz College of Information Systems and Public Policy, and my personal collaborator and co-conspirator -- I don't know where she's at -- Ambassador Sarah Mendelson, who's a distinguished professor there and heads up Heinz College in Washington, DC.

We'll hear I hope a little bit about youth engagement in the SDGs today, and Heinz College is collaborating with the International Youth Foundation on an initiative called Cohort 2030 to grow the generation that will demand and deliver on the SDGs. And so we'll have some conversation about citizen and youth engagement and leadership on the SDGs today as well.

So we're going to invite you to be part of today's conversation on social media. The hashtag is behind me, #CitiesSDGs. You might also see in a blog posted a little earlier this morning on future development, which help set the stage for today's conversations. Feel free to share that on social media, retweet, facebook, likedin. We're not being live streamed right now, but we are being videotaped. So let your colleagues and friends know, if they weren't able to make it today, they'll be able to watch it later on Youtube.

The way today's program will go, we'll have some opening remarks by

Amy Liu, then we'll have a panel discussion with city leaders and experts from New York, Los Angeles, and Pittsburgh, and then we'll open it up to you around 3 o'clock for your questions and comments, and have you continue with us in the conversation.

So before I turn to Amy, just a word about the SDGs and to sort of set the context. Now, these were collectively agreed in 2015 by the world's nations. So they reflect national commitments to end poverty, achieve economic prosperity, reduce inequality and injustice while promoting environmental sustainability and tackling climate change. Wide ranging, ambitious agenda, 17 goals, 169 targets, all to be achieved by 2030. And they're national, they're set at the national level, they're measured at the national level. And in fact there's a goal within the SDGs that recognizes cities, but it's really an ask of national governments to acknowledge the importance of urbanization.

What we're to talk about today thought is cities themselves taking on this agenda and what it might mean for U.S. cities in particular. So to do that, and to set the stage, I'm very pleased to turn to Amy Liu to help us do that. You have her full bio in the packet that you received coming in, but she's vice president and dof the Metropolitan Policy Program here at Brookings, the Adeline M. and Alfred I. Johnson chair in urban and metropolitan policy. Suffice it to say she's one of the nation's leading experts on cities, she has long experience translating research and insights into action on the ground, working directly with public and private leaders in cities and regions throughout the country

So I'm going to turn to Amy for her thoughts on cities and the SDGs.

(Applause)

MS. LIU: Good afternoon. Thank you so much, Tony. And I want to thank you for inviting me to take part in this program with the Brookings Global Economy and Development program. Our program, the Brookings Metro Program, is always really

pleased to have our collaboration with Brookings Global.

So Homi Kharas is my colleague, he's the interim vice president and director of the Global Economy program, and he recently wrote an essay that I find quite relevant for today. He challenged the U.S. to be the world leader in advancing the U.N.'s sustainable development goals. This is noble and it is right. The U.S. ought to be the place, it ought to stand for an economy that increases opportunity for everyone and is good for the environment. However, U.S. global leadership on these core values is currently in doubt if the assumption is that such leadership must come from Washington.

Now, the good news is that our forefathers were smart and they built a nation rooted in democracy and distributed governance. And today our cities are leading the charge on solutions to promote new technologies, address racial equity and inclusion, provide safe harbor for immigrants, facilitate global trade and relations, finance and modernize our infrastructure, and ensure safety and resilience in the face of climate change. Now, our cities are leading the charge, not because they are powered by a national government that recognizes them, it is because our cities benefit from a robust civil society and a set of institutions from government, universities, philanthropy, nonprofits, and business leadership groups that together provide the agency from which change is possible. And today world leaders are grateful and I actually think they are hopeful that the American values that they have come to look up to will continue under the leadership of U.S. cities and their states.

And this is why U.S. cities should embrace the SDGs. Local and regional leaders who abide by these goals will find that many of those SDG goals align with their own vision for their communities anyway. And, in doing so, they will carry the hopes and aspirations of a nation, a nation which all eyes are upon. So simply put, the work of U.S. mayors and regional leaders have taken center global stage.

Now, the real hard part -- implementation. And all the folks right here know exactly what I mean. Now, one good mayor ally friend of mine likes to say that mayors are the party of GSD. They get stuff done, although I'm not sure they use the term "stuff". (Laughter) But all this high level talk and these rather abstract goals to reduce poverty, achieve full employment or promote clean energy doesn't mean much if they don't result in some tangible actions that lead to real change that improve lives of people. And that's what I like about working with local leaders, is that these conversations get practical really fast. And they must because we are not making sufficient progress. The most flood prone and drought stricken parts of the United States are also the places gaining population the most, such as cities in California and Nevada, or Houston and the New York metro area, putting lives and economic activity at risk.

The nation may be experiencing months of consecutive growth, but among the 100 largest metro areas that make up the U.S. economy only 11 metro areas have been able to translate that job growth into greater productivity that has improved wages and employment for their workers. And then among those 11, only 2 metro areas actually improved wages and employment for whites and workers of colors, posing disparities by race. So, in short, only 2 U.S. metropolitan areas in the country have achieved what we call economic growth, prosperity, and racial inclusion.

So if U.S. cities are then to assume the mantle of robust, inclusive, and sustainable development, then leaders really need to take more systemic actions, particularly amid the major structural forces, such as rapid digitalization and demographic change. And also amid a national government that is honestly taking on policies that make our task at the local level harder. So local leaders have to do more. And, again, I love our local leaders, they are pragmatic, but sometimes pragmatic also means incremental. And what we really need right now is bolder actions that break historic

norms and habits.

So what does that look like? So I have five minutes -- I can't do justice to that topic in my remaining time, but let me just offer a few observations about some of the key challenges toward progress that city and regional leaders must overcome if they are to make a dent on equity, on economic growth, and in the environment. And these are lessons based on what we have learned in working alongside leaders in cities across the country.

So three things. First, for all the talk about mayors, they action must be regional. We need solutions that work at the scale of the economy and the scale of the environment, where jobs, water, road, infrastructure, air quality span city and suburban boundaries. Now, that doesn't mean neighborhood level work isn't important, because it still is, but it means, for example, that improving conditions in the South Side of Chicago could be found actually outside that neighborhood, like the employers who will hire young people from there or procure services from small businesses from there. Another example, expanding affordable housing should not just be the action of one jurisdiction which can result in the concentration of working poverty and poverty, but it should be a shared responsibility among all jurisdictions and regions so that low income people and working families can live near where the jobs are. And mayors can be the leaders of regional action.

Second thing, achieving equity and inclusion requires growth and growth actors. Now, social justice advocates, nonprofits, community organizers, they're the most vocal about the need for equity and they have been doing this good work for a long time. But they are not going to be able to succeed alone. In fact, we need employers, we need business leaders, we need economic developers -- they are essential to being part of this objective, or they can lead the effort themselves. So let me give you an example, even

though the U.S. is seen strong job growth, I think we all know that the bulk of the jobs that were created in the economy right now are either low pay or really high end occupations, with very few middle income jobs in between, which means it in part explains some of the wage stagnation we see in the country and the lack of economic mobility.

So if one of the measures of equity and inclusion is increasing pay for workers who are on the margins of the economy, we actually need strategies that focus on how to grow good jobs in durable industries that provide that middle pay. How do we upgrade career ladders or benefits within existing employers or sectors, how do we make sure that workers have the skills and professional networks to work in those quality jobs, and how do we make sure that those jobs are located, are cited near where workers live versus in far out locations. That requires a partnership between economic development, workforce development, community development, and employers and social justice actors. And that is hard to set in many places. And so if we are to make progress on this front, we need more trust, not antagonism, between all these actors.

And then, third, we need to have an honest and explicit conversation about race and value black, Hispanic, and immigrant workers and students as assets, as our competitive assets. We live in a knowledge economy that demands talent, and that was one of the big lessons out of the Amazon's search for its headquarters, that workforce matters. And we have to acknowledge that our workforce is rapidly diversifying with the majority of school age children being children of color. So the future workforce, the people who are going to power our industries, that are going to start our companies, they will be multi racial and multi ethnic. But we have to be honest that we still have conscious and unconscious bias that still pervades our systems and our structures that inhibit our ability to build that talent pipeline.

And this week our program actually released a report authored by Andre

Perry, Jonathan Rothell, and David Harshbarger, that found that homes in majority of black neighborhoods are valued 23 percent less than the equivalent home in a majority white neighborhood. Yet that black homeowner worked just as hard to earn that home and wants to earn the American dream, just like everybody else, and wants that equity to invest in college loans, to pay for healthcare bills, or other necessities that we all expect when we built wealth. At a time when the national discourse promotes division, we need city leaders to be the place of unity, where we think intentionally about how we diversify our own networks, how we diversify our own staff, how we engage new voices and people at the table, and ultimately think about how our own policies and strategies may be undermining people of color or low income people. That is the only way we're going to get to equity in a way that's going to ensure that our future economy is going to be powered by the people who live in our communities.

Now, as an aside, our program is working with water utilities, folks who are thinking about the future of mobility tech jobs, as a source of talent development, because a lot of the infrastructure jobs and sustainable industry jobs are mid tech and provide great pathways and opportunities for low skill and workers of color. And so, therefore, thinking about equity, employment, and sustainability are all interlinked strategies in this endeavor.

So, in closing, you know, U.S. global leadership in achieving equity, in achieving inclusion, in achieving decent pay and climb action is going to depend on mayors and their regional partners. The challenges are great, yet cities have proven time and again to rise to the occasion, and that's because they build trust and GSD, they get stuff done. (Laughter)

Thank you. (Applause)

MR. PIPA: So I'd like to ask our panelists to come up and join me at this

time.

So thanks for those inspirational remarks, Amy. That's what we're here to build on, is the leadership that U.S. cities and regions can provide in achieving the kind of vision that Amy laid out for us and how it's consonant actually with the global vision that was agreed to in 2015, and how that global vision can help reinforce the work that mayors and regional leaders and others are doing on the ground.

We have four panelists that I'm really pleased to have them representing different parts of the country with us today. Again, you have their full bios, so I'm just going to give you the brief highlight of who they are, and then we're going to jump into a conversation that builds off of Amy's remarks.

So immediately to my left is Penny Abeywardena, who is the New York City commissioner for international affairs where she leads the city's global platform for promoting its local goals for a more just and accessible society. Before joining Mayor de Blasio's administration Penny directed girls' and women's integration at the Clinton Global Initiative and was also at Human Rights Watch, the Funding Exchange and the Drum Major Institute.

Next to her is Grant Ervin, who is the chief resilience officer and assistant director for the Department of City Planning at the City of Pittsburgh. Before that Grant served as the regional director for 10,000 Friends of Pennsylvania, which is a state wide sustainable development policy organization, and he's also been at the Pittsburgh Community Reinvestment Group.

Seated next to him is Ambassador Nina Hachigian, the first ever deputy mayor for international affairs appointed in Los Angeles. Nina knows her way around the global stage, having served as U.S. ambassador to ASEAN, and has also been at the NSC, in addition to having been at the Center for American Progress, Rand Center for

Asia Pacific Policy.

And Karen Lightman is executive director of Metro21 Smart Cities Institute at Carnegie Mellon University. Karen helped start and led the Micro ElectroMechanical systems and Sensors Industry Group, and has been ranked by EE Times as one of the top 25 women in tech. She has wide ranging experience in research development and deployment of smart city solutions.

So, Nina, let me turn to you first. As Amy just laid out, part of this will depend on a local vision and achieving a local vision. Did I say Nina or did I say Penny?

QUESTIONER: You said Nina.

QUESTIONER: You said Nina.

MS. PIPA: Oh, my gosh. I think I meant to say Penny. (Laughter) I'm sorry. Well, I'm going to turn to Penny first because New York really came on the scene first in the work that it was doing through OneNYC and its own local city strategy. And yet you took on that local city strategy and you did it before the SDGs actually were adopted, but recognized the overlap with the SDGs.

So tell us the story -- and now, Mayor de Blasio talks eloquently about being committed to the sustainable development goals, committed to the types of things that Amy was just talking about. Tell us the story of how that happened and why, and what the city gets out of that engagement, that sort of local global.

MS. ABEYWARDENA: Sure. Tony, Amy, thank you so much for having me here today. It is awesome to be on the GSD panel. I am going to have to incorporate that into talking points.

So, as Tony mentioned, I'm the commissioner for international affairs and my agency exists -- it's over 50 years old -- because New York City is host to the largest diplomatic corps in the world. So we have the UN, the 193 permanent missions, but we

also have 115 consulates and about 75 trade commissions. So there is a lot of the global work already happening in New York City.

And what happened after Superstorm Sandy is that New York City needed a development plan around how to rebuild sustainably. And when the Mayor in 2014 came into power he really wanted to look at what our development agenda could be for New York City, but with a strong equity lens as we taken on resiliency and sustainability. And in April 2015 we launched or unveiled our OneNYC plan to do this. And, of course, it was the same year that the global community came together around the sustainable development goals.

So your question was why is it important for cities to do this? Taking on this very unique role, running this agency, I'm always taken aback by how New Yorkers are kind of frustrated with the U.N. They think about the diplomatic corps in the sense of a lot of traffic during the U.N. General Assembly and parking tickets, which the diplomats do pay. And so it was a really interesting moment in time as we had the national governments coming together around this, and there was this real need to connect what was happening at the U.N. and with global communities to what was happening throughout our five boroughs. New York City is as large, if not larger, from a population perspective as 141 countries. Bu t we're also not Manhattan, we have our five boroughs. You go to parts of east New York or the South Bronx and there are real structural challenges that we are taking on.

So what we did with the sustainable development goals was taken our OneNYC and map our visions to the SDGs. And because of our strong equity lens we had synergies with all the SDGs. So after mapping that work we wanted to figure out how best do we approach this, how do we take on something as big as the sustainable development goals and take it to a community of New Yorkers who are kind of frustrated

with parking. So we needed to get creative.

One of the first things we did was we created a program called Global Vision, Urban Action. We wanted to ensure that our New York City experts working on these development issues were connecting with their counterparts and that we were sharing best practices around the SDGs throughout the year. So we created this platform and this program. But we also needed to find other entry points. We spent a lot of time working with our colleagues at different city agency, letting them know, teaching them about what the SDGs are and why it's very important for us to use the SDGs as a common language. It's a framework where we can then exchange best practices with our counterparts, whether in Nairobi, São Paolo, or London. And that has been a really interesting experience as you take people that have been working at the Department of Sanitation for the last 20 years, who have been talking about their work in specific language, and really so much of it has overlapped with what the SDGs are and they're learning about it and they're getting excited about the ability to connect beyond borders.

Another challenge was how do you get to the everyday New Yorker. And so one of our strategies was to reach out to our youth. We launched a program called New York City Junior Ambassadors where we invite educators at the seventh and eighth grade level to integrate the SDGs into their curriculum. The winning classroom gets a certain sort of portfolio of activity with the UN, but the most important thing about this program is that the junior ambassadors, the young students, do a commitment related to the SDG that they've learned about in their community. We have a couple of thousand alumni now and we have, for example, SDG advocates, SDG 14 life under water advocates in the South Bronx, who are committed to cleaning up the South Bronx River. And now, for the first time, you have young people going home and talking to their parents about the value of the U.N., why it matters to them, and the SDGs.

So we approached it in a number of different ways and I think the value is twofold. Right now, and Amy alluded to this in her opening remarks, but we have a federal government that is abdicating its responsibility on multilateral agreements, and so this has been a real opportunity to lead from a city's perspective and show the power of not only New York City, but cities around the U.S. and around the world. When the President pulled out of the Paris Climate Accord we were one of the first cities the following day to sign an executive order committing ourselves directly to that. We're a part of over 50 international cities who worked with the U.N. around the global compact on migration, a compact that the U.S. government is not a party to.

So there has been a lot of opportunity for cities to take a leadership role and use this SDG framework to connect beyond borders. And so that is why we are doing what we do.

MR. PIPA: All right. Great. So common language, connecting beyond borders, and also engaging your citizenry and your youth, as well as New Yorkers who are skeptical about the UN and also frustrated.

So, Nina, let me turn to you.

MS. ABEYWARDENA: Really by the parking, not (inaudible). (Laughter)

MR. PIPA: Okay, by the parking.

MS. ABEYWARDENA: By the parking.

MR. PIPA: But it sounds like the diplomats pay as well, so. So, Nina, let me turn to you, because Mayor Garcetti also has been quite public and passionate about pursuit of the SDGs. I was at the Hilton Humanitarian Prize and he made a wonderfully passionate speech talking about the things actually that Amy was just talking about, talking about equity, gender equity specifically, talking about things like homelessness and the importance of that and how the SDGs actually provide a frame for that.

So you don't host the U.N., how did LA's commitment come about? Why is it important? How are you using it? What is important about it to Los Angeles?

MS. HACHIGIAN: Well, thanks, Tony, and thanks to Brookings for having us here. It's great to be with city leaders.

Well, we're really lucky in Los Angeles to have a leader like Mayor Garcetti who has a very international outlook. He's taught international relations and so needs little convincing to see the value of joining a global agenda for sustainable development. He's also really passionate about metrics and about measuring progress and setting clear ambitious targets. So the combination of the two and the SDGs is something that's a major value proposition for him and for us.

We're also blessed to be the home of the Conrad Hilton Foundation, who believed that Los Angeles could pilot implementation of the goals at a city level and worked with us to launch our efforts. And this is typical of how we work in LA, with outside partners.

So we started by bringing on a fellow to manage the portfolio. This is Erin Bromaghim right here. She's also the director of the Olympics and Paralympics for us. And at the beginning, actually, this is how we thought about it, was we're going to get the Olympics in 2028 and this is 2030, so how can we measure our progress toward the Olympics and the Paralympic games through an SDG kind of framework. But we partnered with a lot of local institutions, Occidental College and a number of other universities, and they were critical in helping us to map the student engines, city plans, policy data, and our budget, that work that we had already done to the SDG framework. But, importantly, they've also helped us to think about how to localize the framework for us and how do we want to add context to the targets and the indicators in a way that makes sense for our community in Los Angeles.

So, for example, when we look at SDG 5, which is gender equity, we've been thinking about do we want to add LGBTQI non-binary genders to that framework in pursuit of equality. And that's not part of what's in the U.N. agenda obviously. And localization is important for another reason because we are not the entity that necessarily has jurisdiction over all of the SDGs. So in Los Angles, Los Angeles County is responsible for public health, for example, and mental health, and that's 87 cities in the county. We're by far the largest, but we don't own the mechanisms that do health policy. So it's important to think about -- I mean we obviously care about the wellness of our people, but we have to think about how we tweak it for our local city context.

And localization also helps us to kind of figure out what kind of data and indicators we use to measure progress. So for the example of 3, which is wellness -- and specifically 3.1, is to reduce maternal mortality to less than -- and then the goal in the SDGs is 70 per 100,000 live births. So in California we're fortunate to experience like an order of magnitude less, more like around 7.3 for deaths per 100,000. But rather than declare victory at that, we looked deeper at the data and found that African American moms, regardless of their socioeconomic, educational or other status, die four times more often than any other subgroup. So that tells us that there is a lot more work that we have to do. And so we have to think about how we modify an indicator for our particular situation.

So it's as much about like telling the story of what we're doing, but it's also allowing us to think about what makes sense for our global context. And so we can then kind of create a feedback loop that informs policy, that's meant to realize those global targets, but in a way that makes sense for our local community.

MR. PIPA: So think that's really interesting, that you're taking a global framework and yet even becoming in some respects more ambitious, and exactly to the

things that Amy spoke about in the beginning, around issues of equity, for example.

But also that point about the dichotomy between the City and the County and what is going to be necessary in terms of a region working together. Maybe it might be interesting as the conversation goes on to think about do the SDGs provide a platform for us to come together on that a bit.

Grant, so let me turn to you. I mean Pittsburgh has garnered a lot of positive attention in revitalizing its community, in some respects reinventing itself as a city and an economy. It's seen as a leader on sustainability. The mayor has committed to Pittsburgh as the city for all, so those issues around equity that we've been talking about, where all residents would benefit from prosperity. Yet, as a city you haven't made public commitments to the SDGs yet.

MR. ERVIN: Yet.

MR. PIPA: Okay.

MR. ERVIN: It might be a week early. Be patient.

MR. PIPA: You heard it here first. (Laughter) So tell us, you know, in looking at the SDGs, is there a value proposition there? How are you thinking about it? Obviously, as you say, you're starting to look at this. What might the meaningfulness be for the City of Pittsburgh on this?

MR. ERVIN: Certainly. And thank you, Tony, and thank you, Brookings and Carnegie Mellon for having us here today to have this conversation.

Pittsburg is in an interesting place. And maybe if I give it a little sense of kind of our recent journey, which really started with Mayor Peduto, my boss, and his election 2014. The times were much different then in terms of the relationship between the federal government and local government. And yet at that time Pittsburgh recognized itself as being in a pivotal or transition place, recognizing that kind of our industrial

heritage that was behind us, we needed to forge a new frontier. And with that, one of the things that we started to develop at the behest of the community really, in going into Mayor Peduto's transition when he was elected, we had 1,000 person transition team, which was community residents. So it wasn't just 30-50 muckity mucks that kind of work in the City in GSD stuff, but it was Joe Johnson and Susie Smith that live down the street who came out to participate in kind of the activity of building this new Pittsburgh.

And one of the messages that we got about that was that (a) Pittsburgh can't rest on its laurels as a place that has bounced back, but we also need to think globally and engage globally. And with that in mind, one of the things that we started to do as an administration was to look for opportunities to engage with other cities. And part of that came to us in the form of our engagement with the Rockefeller Foundation's 100 Resilient Cities Initiative. And kind of a quick plug -- our bosses went to mayor school together. So about --

QUESTIONER: What?

MR. ERVIN: So what I'm going to say here is there's a couple of linkages that we have --

QUESTIONER: Mayor school?

MR. ERVIN: There is mayor school. So with that partnership with cities like New York and the global network that the Rockefeller Foundation helped us bring together, we started to think about the city's shocks and stressors. So the first kind of development of resilience strategies. So thinking about what are the things that could be the immediate negative impacts or shocks that could kind of pull the carpet out from underneath of us, but also what are those slow moving, long standing stressors that impact day to day operations, but we kind of endure and we deal with. And we started to speak this language of resilience. Sustainability was kind of the "it" term and I became

the city's first sustainability director and they were like we want you to take on this new funny title of chief resilience officer. And with that it allowed us to kind of broaden our perspective beyond just the environmental aspects of sustainability, but really start to think about risk and to think about the integration of systems and how those systems both network together to build strength and the ability to adapt, but also allow us to start to think in a more formative way about the future and what the future of the city looks like.

And with that in mind we set up a value set that we call P4 or people, planet, place, and performance, which really became kind of the foundation for us with regards to how we as local government interact with philanthropy or the private sector and where the cross purposes exist. And we went through this journey of developing the resilience strategy and a resilience assessment of where these shocks and stresses exist for us, but also where do those networks exist for us to build the capacity, because local government can't do everything by themselves. And with that in mind, we understood where our weaknesses are. And one of the key things that we came across was fragmentation. And effectively, those inabilities of sectors to work together and that fragmentation erodes the wherewithal of local government to act proactively.

And with that now we have started to find these intersections. And one of the key things that we found also was that at the core of that fragmentation that led to the exacerbation of inequities. So those systemic issues of racial inequality or gender inequality were baked into the system. And even though that we're all trying to steer the ship to address them, the reasons and the systems that were built 40-50 years ago prevent us from effectively effecting change.

So with that, we worked to create the city's first underlying measure of inequality, called the equity indicators, through a partnership with Rockefeller and the City University of New York. So that partnership is part of a five city cohort based on a lot of

the work that was pioneered in New York City. And that gave us the first insights in terms of where we're truly inequitable. And with that process it gave us a lens in the resilience strategy that we have developed, but to start to shift and pivot resources, which is leading to the creation of our One Pittsburgh Prospectus, which is effectively 45 key projects that could build the resilience of the city and then -- a little kind of head release -- we're developing a fund called the OnePGH Fund. So we kind of pilfer a little bit off of our friends in New York about some of these titles. But the idea though is effectively to find ways in which to encourage collaboration, build those networks, and then proactively and strategically address those issues.

That has led us now into this common conversation around the SDGs, where our partners at the universities and philanthropy are also kind of thinking and seeing the framework provided as the SDG is the way in which to create a common language. And you see several -- and some of them are here today in New York, Los Angeles, Pittsburgh, Atlanta, Orlando, U.S. cities that are recognizing this integration opportunity. It's work that we're doing and have been doing, but it creates that common language to pull us all together.

MR. PIPA: Great. That's great. So, again, common language. Also the platform to engage with other cities. But it was so interesting when you were talking about fragmentation and then taking it deeper and looking at sort of the interdependencies and what that meant in terms of systems, sort of creating the template really for continued inequity and what you would have to do around that.

MR. ERVIN: Just real quickly, I mean one of the things that we've seen is the fact that cities are dynamic, they're constantly changing. But many times our systems and our institutions aren't changing to reflect the current challenges that we face. So in many cases now we're asking ourselves how do we modernize or create new

structures to address today's challenges.

MR. PIPA: So, Karen, let's go to the GSD. You work with Pittsburgh and other cities to help them bring people and technology and policy together to improve the quality of life for their residents. And so listening to this discussion, and based on your experience, give us your take on the SDGs as a platform for accelerating progress. It is a big, ambitious, wide ranging agenda, but is it also a platform for innovation and how do we think about it?

MS. LIGHTMAN: That's great. Well, first, I want to thank Sarah, who is way in the back, but thank you for bringing me here. And, Tony, obviously, thank you as well. I am humbled to be listening to all the great thought leadership at this table. So I'll do my best to address the issues.

So I'm with Carnegie Mellon University, which is also in Pittsburgh. And I'm with Metro 21, which is our Smart City Institute, on behalf of the University. And we see things like -- it is a system of systems. We see a lot of the work that we originally did in Smart Cities was about transportation. And so, okay, great, so you're using robotic and AI machine learning to help with the traffic flow. So we have a technology now that's quite commonplace, but it was built and developed and started at Carnegie Mellon. And so you're reducing traffic by 40 percent and it's improving air quality by 30 percent, or whatever the percentage is. But if the road is full of potholes and if there's a water main leak and there's no electricity and there's a landslide and the air quality is bad and somebody doesn't have skills and they're in a transportation desert, where they're living one place and you cannot get to where the jobs are, that's not a smart city. So if you're thinking -- and you're not improving quality of life. Maybe for that sole driver that's at the stop light, you're improving that person's quality of life, and there is great work being done in that area, but I know the work that we do at Carnegie Mellon and because we

have such a great City of Pittsburgh and a great partnership with the City of Pittsburgh -- we actually have memo of understanding with the City of Pittsburgh as well as with the County and our airport. And the whole idea is about partnership.

So we take the technology that's being developed, researched and developed at Carnegie Mellon, we match that with the challenges, the problems, the real world issues, and then there's this sweet spot in the middle where we have innovation and we use technology to overcome these challenges. But it's not like a magic wand that you just hit and use technology and, boom, everything is taken care of. No, it's really iterative. So it's also, okay, we have this great machine learning algorithm, but we don't know -- we're using it for improving your search engine or something, but at a city they may not really understand what that means, because they're dealing with potholes and landslides and infrastructure and all these other challenges. So it's very iterative and collaborative and it's messy sometimes. And it also takes a lot longer, I think, sometimes than we all want to admit. But the partnership, the open communication, collaboration, Carnegie Mellon has a history of that. My alma mater as well, Heinz College, the public policy school, has a history and a partnership with the city, with the mayor.

And so that's helped lay the groundwork for the work that we do that -- you know, we were talking earlier, I printed out a cheat sheet because I actually don't know the 16+ Sustainable Development Goals, but in fact the work that we've been doing has been supporting that. You know, the idea of a system of systems is very much simpatico with what the Sustainable Development Goals are about. So I think that much like what Grant was talking about with the P4, the way we think about using technology to address the challenges of urban communities, rural, as well, it's very much a system of systems, it's very much about the public-private partnership, and it's -- you need to have the smart goals. And I think that's the one thing that I think is interesting, what you were

talking about with your mayor, is that he is very goal driven. And these smart goals -- I remember when I had a boss who was really into this, I was so annoyed by the smart goal thing, but it's really important that they're strategic, measurable, articulated, realistic, and time bound. And so what I think is unique about the work that we do at Carnegie Mellon is it's all about data. And it has to be good data. You can't have garbage data because if you put garbage in you get garbage out.

But I think this is very much -- again it's consistent and it's simpatico with the SDGs, in that if you have a relationship with the City of Pittsburgh, for example, where we're all about improving performance and it's measurable performance, you need to have data. So we're big believers in open data as well. And, again, it's a partnership. So actually at the University of Pittsburgh there's a center, it's called the Western Pennsylvania Regional Development Center, and it's funded by foundations primarily, including the Heinz Endowments, and it's whole idea that the data -- it's a repository, it's like a portal, and it's open. And what's really interesting -- and you can all Google it. I think it's WPRDC.org, but I might have gotten that wrong. But it's the idea that it's an open portal of data and it's for researchers, it's for anybody, you know, Judy Smith. Anybody can use the information and it becomes a tool and it also becomes part of that understanding of how to measure those goals. So if we're talking about -- so it's health data is in there, 311 call data is in there, understanding about taxes and property taxes and parking, and all of that information is now open source.

And I'm really proud of the work that Carnegie Mellon has done because we've helped facilitate that. And so to be able to have Sustainable Development Goals you have to be able to measure them. I'm really confident that the work that Carnegie Mellon has done to help have this philosophy of open data will help in setting them, achieving them, and measuring them.

MR. PIPA: Great. Thanks. So, Nina, let's stay on that -- well, both the partnership piece, which Karen was just talking about, because that's been also part of what has been part of LA's experience, but also that specificity around goal setting. So that's one thing that's actually been really helpful in terms of the SDGs globally. It's really provided an impetus to make pretty significant progress on some tough development challenges globally. But it's not necessarily always the way in which we think about development in the U.S., and there are political risks too. So your mayors may -- for example, very public, specific time bound -- that smart goal around ending homelessness, but what are the upsides and the potential downsides of doing that? I mean that to me seems like one of the potential powers of the framework itself.

Great to get your comment on that.

MS. HACHIGIAN: Sure. So a couple of thoughts. First of all, I think it is the power of the framework, especially for cities who don't already have this culture of measurement. But I really feel like this gets to why elected officials enter public service to begin with. So for our mayor, it's about delivering value to our residents. And if you don't measure the progress then you can't know whether you're actually doing the work. And if you don't set ambitious targets, you don't know whether you're really doing as much as you could be doing.

So it does I think require a culture shift and we didn't -- I mean we didn't start this way, but now we've been the number one digital city for three years in a row. We're the only city that has Bloomberg's gold whatever thing for governing. No one is platinum by the way. There's no one in the platinum category. (Laughter) But let me just give you a few examples of the kinds of things that we started with. And I didn't start at the beginning of his administration, but I think it seems as though there's been a big culture shift since then and departments are starting to take this on and realizing the

value of it for their own sakes.

So he came to office and there was common concern about the City just being dirty. And so the way that the Sanitation Department had worked is they would get a complaint and then they would go out and send a truck and clean whatever street was complained about. And instead, we decided to measure every single street in the City of Los Angeles, however many thousands and thousands of miles that is, with a one, two, or three grading of cleanliness. And the Sanitation Department took this on to do. And we now report that data every quarter. And we found -- not surprisingly -- that it was the clean neighborhoods and streets that were the ones complaining the most, and we found in fact in the poorer neighborhoods that there was -- it wasn't just dirtier, it was like toxic level dirty. There have been like toxic dumping in places that we didn't know about. And so we've now gone from a system where we were responding to demand, which we have to do sometime, to being much more analytical and now being able to be proactive. Another example is call wait times. You know, we have a very specific goal for how many -- and I don't remember what the goal -- like one minute on line or three minutes -- that we want you to be on hold when you call the City for a service. And we measure that and we report it. And there's this -- on our website, the mayor's dashboard, which has a whole bunch of different indicators and they are green or red, depending on whether we're hitting our target or we're not hitting our target. But it's all completely open, which then holds us accountable, which is what we want to be. So even if we're failing, at least we're trying and we can get help them if it's clear that we have a problem, like we know where to put our executive attention.

Homelessness is a really huge challenge. It's our absolute number one priority. It's interesting with the SDGs there's no SDG for homelessness and you can see -- like each case really is unique why people become homeless. I mean it often is a

combination of not affordable housing and trauma, but not always those things. But you can look kind of across the SDGs to see all the different interdependent variables that can lead to homelessness. But we do have a really comprehensive program now. It's not perfect, but we've got one and we're making progress and I'm happy to talk more about it at some point.

But an important thing that when Mayor Garcetti announced that we were going to begin doing this work on implementing the SDGs, he made the point that they're not about development in some faraway place, that they're about our development and that we shouldn't be judged on how many like Michelin rated restaurants we have, but about whether everybody has enough to eat in our city. And so he's always good at bringing that kind of global message down to Los Angeles, which is important in terms of communicating the populous why we're engaged in such work.

MR. PIPA: So, Grant, let me turn to you because we were talking about fragmentation. And I'll also say that one of the revolutionary things about the SDGs at the global level was the inclusion of Goal 16, which is around equity inclusion rights and access to justice and violence. And Pittsburgh has just recently experienced a real tragedy. Amy's opening remarks really encouraged us to talk directly about race. Do the SDGs offer anything there as you're thinking about what the city's response is to the issues that underlie there? How do you think about that? The one thing we haven't really talked about yet is some of the more difficult parts of the SDG agenda around that.

MR. ERVIN: Yes, I think one of the things -- two ways to kind of talk about that. And you're right, we just dealt with a major tragedy in Pittsburgh as a result of a lot of different issues. You know, you could take it from a gun control lens, you could take it from an anti-Semitic lens, you could also take it from the issues of isolation and the challenges that the shooter had dealt with internally and not being connected to be

society, and some of those root cause issues. Or you could take it from the fabric and the response of the community in terms of the integrated nature. I mean one of the things that that incident at Tree of Life, which was a shooting at a synagogue -- for folks that were not familiar with the incident that Tony's addressing -- it's always a tough one to talk about. And it was so tough for us because if you've ever been to Pittsburgh, Pittsburgh is not a big city. Pittsburgh is the biggest little city in America. We're 305,000 people. And for me personally it started out as a lazy Saturday with my kids to all of the sudden getting text messages from neighbors who are first responders and their spouses who were on site. And all of the sudden your day and your world is flipped upside down. And, you know, I put my resilience hat on, this is a shock. This is the typical shock that it could be a hurricane, it could be a tornado or an earthquake. In our instance it was an instance of mass violence. And what was so heartening about something so horrible was the response of the community. And while we were being tried in a really dark hour, I was on an email chain from friends that I play soccer with, many of which who live a block away from the synagogue. And it was the immediate response of we care and how are you and are you okay. And then the subsequent hours and days afterwards, you know, everything shifts and the mayor to his credit and our country executive, Rich Fitzgerald -- it was their neighborhood -- and were on site immediately and tending to the families.

And I think what is good, if you could find something good out of a bad situation, was the response. And that speaks to how do you address, again, kind of that -- I talked about fragmentation -- it's overcoming boundaries and barriers that are built into society in order to respond to a tragedy. And cities and communities are measured by their ability to respond, because what we know is that events such as that are in inevitable. So there's the lessons that you can learn, how can you respond better, how

do you strengthen and change systems to adapt and be reflective, what are the policy changes that are required.

So while they're dark and they're deep, they also provide kind of learning opportunities for us. And I think in those instances, again, why the SDGs are so attractive to cities, are that we are the point of delivery. So if you're going to try to attempt to address the goals and meet the challenges set up by the SDGs, you're going to need a local government or a community to help you root the cause and to understand what the solution is. We have a hashtag here for cities, right, but that's also suburban communities, it's also rural communities, and how do we aggregate up that kind of response and reflectiveness is effectively kind of the momentum that we can start to build I think.

MR. PIPA: That's wonderful. Thank you for sharing that. I know it's not easy. But that sense of community and community resilience, with the community coming together, no matter how that community is defined, and that feeds into sort of the community and then to a larger global movement. And what you were just saying about cities delivering as well, speaks, Penny, a bit to a step that New York actually took this summer, which was to become the first city to say here's what we're doing on the SDGs, here's what our contributions are, and reporting it back out to the world, and doing that within the context of the United Nations.

So it would be great to hear why take that step, what did it mean for New York, and what are you hoping going forward out of that?

MS. ABEYWARDENA: Well, I think it goes to the point that Nina just made, which is it is really important that we hold ourselves accountable to what we say we're going to do for our communities. And so with One NYC one of the priorities in launching that development agenda was that every year we would have a public progress

report, we work with our community boards, community activists, and make sure people are both -- the community and New Yorkers are part of the decision making when it comes to identifying the targets that are found within OneNYC. But every year we are committing ourselves to hold ourselves to the progress of where are we on affordable housing, where are we on homelessness.

And I think another thing that I just want to reaffirm that I heard Grant and Nina just talk about, is that homelessness is a huge deal in New York City. And what we are trying to do through the de Blasio administration is address it systemically. And one of the ways we do that is really tackling mental health. And we don't have billions of dollars to put toward mental health resources, but what we can do is retrain public servants in terms of how they identify mental health issues, whether they're a probation officer or a first responder, and then direct them towards the resources that already exist. But they're very sort of not simple, but just sort of basic strategic ways to sort of re-shift the way people think about something as core as mental health, but identifying issues like homelessness from the systemic perspective.

So since 2015 we have been, very April, publishing a progress report on OneNYC. And that was an interesting experience for my office at the UN -- I'm physically located at the UN. And the Sustainable Development Goals -- because every summer we host the High Level Political Forum, and that's when foreign ministers come and essentially do the work before the heads of state come for the UN General Assembly, and the focus on five to six SDGs every year during the High Level Political Forum. It's also a time where nation states are invited by the UN to submit a voluntary national review. We knew during this Trump Administration that the U.S. government was never going to submit a voluntary national review, what's called a VNR. So we through our work with the Secretary General's Office (inaudible), we decided to propose what would it

look like if New York City submitted a voluntary local review, would they be interested. There's SDG 11, which is sustainable cities, so it can fit into that, but really what we're reporting on are the other SDGs. So the UN was very supportive of this and so during the High Level Political Forum of 2018 we became the first city in the world to submit one.

And what was really interesting was the process internally within the City. There was lots of work we had to do to show our colleagues throughout City agencies the value of translating the work that they're doing and reporting into the UN and really publish this beyond our five boroughs, publicly stating where we're at on the five SDGs from this past summer. And it was interesting because we're not doing great in all of them, you know. Our rating is good, but it's not perfect. And so that was a real interesting moment too for us to report to the UN and to the global community, both what is working and what our challenges are. And, again, another platform for us to have a conversation about best practices and connect with other cities and states that may be doing well in those areas.

So we published this voluntary local review this summer. And what has been interesting in the last couple of months are the conversations we've been having with cities both domestically and internationally because it's now a tool. You know, one of the bits of pushback I get is of course New York City should be doing it, you're New York, you host the UN. And there's you, you have an agency. And that is something that I want really to avoid because I do think this voluntary local review ends up being a very powerful tool, irrespective of how your government is engaging with the SDGS. As Grant said, at the end of the day we're front lines on the issues that are actually happening and how we're addressing them and these SDGs getting achieved.

So it has been fascinating time as we see mayors and local authorities wanting to do voluntary local reviews, but we're also talking to community activists who

are like, oh, our cities are never going to do this, but now we have something we can ask them to do. And it's based around the framework of the SDGs. And so we are really excited as New York City and as part of this larger coalition of cities that want to engage on the issues that impact our community and recognize I think domestically in particular that our federal government is just not going to show up on these issues. So the VLR is a really interesting I think next step in this SDG framework, best practice exchange model I think.

MR. PIPA: Great, thank you. So I want to turn to you now. You've been patient through the stories that we've told from here. So, time for questions. If you have a question -- so I've got one right here. So a few requests -- please introduce yourself, so we can maximize the time, please be short, try to keep it to one question. And I'll take a couple of questions before we engage the panel. And remember, questions end in a question mark. (Laughter)

MS. MICHELSON: Joan Michelson, Green Connections Radio and I write for *Forbes*. Thank you, Amy. It's good to see you again.

I have frankly a personal connection -- full disclosure -- to all of your cities. I'm a native New Yorker and I spent many years in Los Angeles and have family in Pittsburgh. So this is kind of an interesting experience. But one of the things that I ran into in running the marketing of the LA mass transit system, for example, is you talked about personal localization. Well, in some ways it's micro localization because every population has a different need and needs to hear a different story and has a different metric. So how are you developing strategies to reach the people in all these different areas in a way that you can measure for the whole city? I mean South Central is different than Santa Monica, et cetera, et cetera. So you're dealing with such a great variety and so many languages as well. So how are you doing localization on the ground and

reaching different people?

MR. PIPA: Great.

MS. COLLINS: Hello, everyone. Thank you so much for your presentations today. My name is Pamela Collins and I'm at Conservation International.

You've represented some really great progress on a lot of different sort of social justice infrastructure types of challenges within the SDG framework. What I'd be curious to learn a bit more about is if your cities or, you know, any of you are thinking about Goals 14 and 15, life on land and life on water, in the sense that healthy functioning ecosystems sort of underpin a lot of the other objectives that have been discussed today.

MR. PIPA: Great. So the environmental (off mic).

QUESTIONER: The issue of inequality runs across a number of these platforms and I'd like to know -- and there's an evolving thought that you could wrap around services for education, job training, health, social, other issues in housing. Are any of the programs you're doing in any of your locations fostering that kind of a delivery system?

MR. PIPA: Great, thank you. Karen, why don't I turn to you on the micro, and we can also hear from someone else on that as well. But given that it was also around, how do you make sense of all this data?

MS. LIGHTMAN: Right. So I think in a lot of ways what I think is exciting about the technology tools that we have now and the ability for processing power, if you will, and also just simple -- I don't have my iPhone with me, but the iPhone camera now is like a super computer, right. So at Carnegie Mellon there's a start up that was spun out based on a pilot project that we did in partnership with the City of Pittsburgh. The company is now called RoadBotics. But the concept that is professor in our robotics

institute came up with is if you took the camera of your smart phone and we put it on the front of public works vehicles that go the streets, every street. You know, like they're collecting garbage once a week in every street in Pittsburgh, and it's looking down at the street and it's looking for cracks, it's looking for potholes, it's looking everywhere. So even if the fancy white neighborhoods are calling, I have a pothole, I want it fixed, but this computer aided technology is looking everywhere, it's looking equitably, it's looking at poor, rich, whatever neighborhoods, all over our 90 neighborhoods in Pittsburgh. And it becomes a tool for equity so that it comes out with a map and it's coded, green, red, and yellow, much like the maps we were talking about earlier. And that way a city -- you know, councilman can't hide from the truth. The truth is from this data that's been collected through smart phones. The fun and exciting and IP stuff comes from the algorithms behind it that are machine learning, that's a crack, that's a snake, don't worry about that, that's a pothole, that's a pothole you need to fix or it's going to become a sinkhole. And so what's exciting is that technology has been able to become a tool for creating more equity across neighborhoods.

MR. PIPA: Great. Anybody else?

QUESTIONER: So I think it's a great question. But when you think about it, the SDGs were created by the entire world. And among nations are incredible disparities in all these things. So I think that in terms of the implementation, that could look different in different communities, and different communities need different things more than others do. But I think in terms of just a measurement tool and gathering the data, that part of it I think is fairly the same. It's just that some parts of the city are going to have tree canopy and the other won't, and therefore you need to put more trees in this neighborhood.

But I guess that I come to it, and we come to it, from such an equity lens

-- and you hear that across the board -- that that's ultimately we're trying to make sure that we're all getting ahead. And so we're going to put our attention to those places that are not getting ahead as much -- and this is one framework that helps us do that.

MR. PIPA: The environmental sustainability question -- Grant, do you want to take a shot at that?

MR. ERVIN: Certainly. You know, one of the things we've done -- this is in regard to 14 and 15 -- concurrently to the development of our resilience strategy, we also developed the third generation of the Pittsburgh Climate Action Plan. And traditionally is cities do these types of plans, they have been mitigation plans. How do you reduce your carbon impact? So you take an emissions inventory and you find ways in which to reduce that through the building, energy, and transportation sector. But tow new chapters that we incorporated was a carbon sequestration, as well as a food chapter. And the purpose being was (1) to think about local food systems and kind of vehicle miles travelled and how do we buy local, create local, et cetera. But really the idea of using carbon sequestration and kind of that land component, and understand how we are using land in an equitable and accessible way.

So one of the things -- like many U.S. cities have incorporated as a 10 minute walk to a park score, so that every resident in the city should be able to walk within 10 minutes to a park or a place of recreation and solitude. And that is now starting to drive land use decisions that we are incorporating, both for private development but also for public development, where are parks located, what is the condition of those parks, can we create green space, can we reclaim vacant and abandoned land and repurpose it for public benefit. You know, so those things are starting to drive a lot of the decision making that we're doing with regards to both planning as well as the allocation of land.

With regard to the below water, one of the things that we have done as well, in part because of our friend at the U.S. EPA, like many U.S. cities we're a under consent decree with regards to violations of the Clean Water Act. And with that we have developed a green infrastructure master plan to incorporate again kind of those land use decisions with regards to where the water is flowing, as well as how it contributes to river water quality. And we've started to partner both with our water and sewer agency, but also the U.S. Army Corps of Engineers, who has just recently done a climate assessment for the Ohio River Valley. We're really ahead of the Ohio River. So those types of collaborations between federal and local partners help to bring that together.

MR. PIPA: Great. Penny you wanted --

MS. ABEYWARDENA: One thing to note is that we mapped our OneNYC development agenda to the SDGs. OneNYC stemmed from our experience after Super Storm Sandy, which cost New York City trillions of dollars and I think we lost about 70 or 80 people during that horrific event. So we were able I think to map sort of successfully to the SDGs because of our strong equity lens as we looked at the strategies around sustainability and resiliency. But I will say, again, we were one of the first to commit directly to the Paris Climate Accord. Now there are about 400 U.S. cities that have committed to it. But we have also developed a policy plan in terms of how we're going to achieve that, that we have publicly shared with the global community.

And something that we're essentially adding to that work related to how we're going to achieve the Paris Climate Accords is a focus on climate accountability. And New York City, along with London Mayor Sadiq Khan, have launched the Global Divestment Network. And we have divested about $4 billion from our pension funds and we are -- from the five big fossil fuel companies, and we are reinvesting that money into clean energy solution companies.

So this focus on climate accountability -- and we're also suing the fossil fuel companies for the damage that was done during Super Storm Sandy. So we are deep in SDG 14 and 15.

MR. PIPA: And who wants to comment on the inequality question? Grant?

MR. ERVIN: I'll comment on anything you want me to, Tony. I think the issue is related to housing, right? One of the big things that we have focused on, and I think why housing has become a critical issue in all American cities, whether it's with issues of supply or lack of supply, but predominantly around the issues of affordability. And two things that we have done, one specifically is to find ways in which to allocate more resources to create a greater supply of affordable housing. And we recently, through Pittsburgh City Council and leadership by the mayor, we created the Affordable Housing Trust Fund, which now creates a new source of resources that we can allocate to help the development of additional supply of affordable housing.

But the other thing that has been really interesting for us, which is a confluence of multiple SDGs, is the issue of energy burden. In Europe they tend to call it fuel poverty, but this is effectively one of the most critical issues of existing housing stock where we have found that one of the major challenges that people are facing is the ability to meet those monthly utility bills. Now, this has a series of kind of systemic failures. One is typically it's not an issue of the cost, at least in Pittsburgh, of the cost of utilities, but it's because of an aging housing stock. And what that does is it creates both -- you know, think about the stress of paying that monthly bill for some families. It also creates issues in the healthcare system. So a lot of poor indoor air quality issues are associated with the lack of having an energy efficient home. So incidents of cardio pulmonary problems or asthma and things like that, that could lead to the loss of a kid going to

school or the loss of days of work. So it becomes this kind of ball of yarn that you pull. And what we started to do is to network both service providers, residents, and utility companies to start to network together ways in which we can build solutions around that.

MR. PIPA: A couple more questions --

MS. HACHIGIAN: Can I just get in one -- I feel like I should say a little bit about this since it's such a big challenge for us. There are a lot of ways we're addressing affordable housing, but there are two in particular. One is that the generous residents of Los Angeles voted to tax themselves and so we have a huge and now sustainable fund for affordable housing. But the second is to incentivize developers around transit oriented housing. So if you do housing around a transit hub, depending on the number of affordable units and how affordable they are, you get more -- you get an easier way to develop -- like fewer setbacks, fewer parking spaces needed, more units you can build, more density basically. And so between the two of those -- and actually there's a third one called ADUs, accessory dwelling units, which is basically that if you own a home you can put a little home in your backyard which you can rent out as a granny flat or to someone who needs it. So three measures all together are rapidly generating a stock of affordable housing. They're not enough, but they are -- it's significant.

And on the sustainability front, just to say that people are surprised when I say, but we know that as Los Angeles in 2016, which is the last year that we have data for, we were able to reduce carbon by 11 percent, which is pretty cool, and just shows -- and create 38,000 green jobs at the same time. And just in general our employment is growing. So these things are not incompatible.

MR. PIPA: So a couple from the back of the room. We have about 10 minutes left. So the gentleman with the hat on.

QUESTIONER: I knew there was a good reason to keep my hat on.

(Laughter) Thank you. My name is Kalosha Heed; I'm with the Healthy People, Thriving Communities program at the Natural Resources Defense Council. And so my question -- I hope I'm not too long-winded -- but the concept of sustainable development came about through a very long discussion debate at the international level that many institutions and the general public in the U.S. were not engaged in for the most part. We were not involved in that conversation. And I feel like we're now just skipping ahead and jumping to data and we're focusing on reaching data points. And Amartya Sen, the economist, reminded us that, you know, you could improve health and education quality in a well run prison if you did it right. So just reaching the data point alone isn't really going to -- doesn't really hold the meaning.

And so the concept of sustainable development was needed, required, because our current path of development was both unjust and unsustainable. And so where is this conversation at the city level for changing the path of development? And how are we acknowledging that the very path of development that cities are under are driving the affordability crisis in housing and how does that make us question that and transition to a different framework?

And a second part to that is what's really innovative about the SDGs is the ability or the way that the SDGs force us to rethink and to really integrate the focus on the (inaudible) environment with social development and social outcomes, which we tend to regulate to a set aside, which is the way we treat affordable housing, it's a set aside. But it doesn't really influence the mainstream housing market in our cities. We want to keep that growing.

So that's my question, how does this influence the overall development discussion and trajectory of cities?

Thank you.

MR. PIPA: One more.

QUESTIONER: I'm Howard Marks; I live here in the District. So my question is to the Deputy Mayor of Los Angeles. Madam Ambassador, you mentioned homelessness and you invited actually members of the audience to ask you to provide more details because I know -- my son lives out in Los Angeles, he loves it. He loves the restaurants there, by the way. And my take away from visiting out there is what's going on around the freeways and when you have these tent cities all over the place.

I'm happy to hear that you're working on this and I'd like to hear what progress you've made.

Thank you.

MR. PIPA: So, Nina, why don't you address that?

MS. HACHIGIAN: Okay.

MR. PIPA: Then we'll go to (off mic).

MS. HACHIGIAN: So I'm going to try to be brief about this, but I'm going to just -- there's a lot more to say about it, and because this is a kind of a wonky audience, I'll give you a little bit of wonk, which is that -- I mean part of the issue is that as I said earlier, the county regulates mental health services and health services and the city regulates police, fire, sanitation, housing. And they both regulate housing actually. So part of the starting point was getting us all on the same page. And what we ended up doing is just putting everybody in room, so there are representatives from all the departments, and they sit in a room every day, probably 12 hours a day, and they together problem solve on homelessness. And so it's like a rapid response center, but there is sanitation, there are police, there are fire, there are county mental health.

So part of it was political, of getting everybody to be working together and so that we sequence things in the best way possible. We have a program called a

Bridge Home, which is to create temporary housing but with all the wrap around services around it, so with mental health, with job retraining and counseling, substance abuse counseling, if necessary. And we have created a fund where all the 15 council districts get around $4 million to create one of these shelters and if they don't use it, it goes back to the general pot and someone else can use it. So that has created a lot of political incentive around creating these shelters. But we were getting a lot of resistance about where exactly we're putting the shelters.

So once we locate a shelter, then -- you know, Mayor Garcetti endured like a four hour town meeting in Venice with just people screaming at him because of where we had decided to locate a shelter. And from our point of view we're like, well, wouldn't you rather have people inside a shelter and being taken care of as opposed to outside and wandering the streets. Anyway, we're working through those issues, but we're all -- everybody in the government level is very committed and very firm on the fact that we have to do this crisis shelter housing while at the same time we're doing all this building of affordable housing that I mentioned earlier. So it's a two track approach.

As you can see, we don't have it in a sound bite yet, which is part of the issue, but we've done one and we have sited about four or five more. The one is working extremely well. We already have people who've moved in and then out of it to permanent housing. So it's a complex problem, but we've got our hands on it I think in a way we haven't in a really long time.

MR. PIPA: So this question about the larger question of sort of unjust and unsustainable development and the paths and the policies of how development occurs. Who wants to risk taking that on? (Laughter) Penny, go ahead. And, Karen, I was also going to ask just a little bit about if data can help us in this, and technology as well.

MS. ABEYWARDENA: So I would think that the first thing you would do is disagree about the first statement, which is that the U.S. wasn't involved in the SDGs sort of being framed and negotiated --

MR. PIPA: Took two years of my life.

MS. ABEYWARDENA: I know that the U.S. was very actively involved --

QUESTIONER: (Off mic).

MR. PIPA: He means sort of the larger conversation.

QUESTIONER: (Off mic).

MS. ABEYWARDENA: Oh, okay. Fair enough.

MR. PIPA: The larger question of sustainable development and how sustainable development occurs.

MS. ABEYWARDENA: So I am up here with representatives of very progressive mayors. I can only speak on behalf of Mayor de Blasio, but I will tell you his campaign back in 2013 was about addressing the tale of two cities. New York City is a place where I can barely afford to live and I'm in the administration. So that is something that we have taken on. And when I say that we have tracked it to the Sustainable Development Goals, it is really looking at the policies that we took on, whether it was homelessness, affordable housing. Listen, systemic things like universal pre-K, this -- I mean parental leave. I mean there is just basic things, stuff, that we don't have mandated by our national government that we as cities have to lead on.

And so from a city's perspective, and a city that is run by a very progressive mayor, our policies are about ensuring that the equity lens is addressed at every single level. Social justice is sort of the backbone of how we are approaching public policy. And so when we are measuring it to the Sustainable Development Goals we find ourselves in certain places going beyond what some of the baselines are

because we see the need in our community and how much we've pushed with the larger New York City governing body, with our city council, and how we moved those policies along.

So I see your point, but I think again it is very much about the city and the city leadership that is taking it on. And the policies are so vast, right, and it's so structural that homelessness, affordable housing, I think is going to take a very long time to address because you have to hit all of the issues that created the problem in the first place. And at the same time, you have to run with development. We have to create jobs. Right now we are dealing with the reality of Amazon moving its headquarters to Long Island City, and the negotiations that we did to ensure that we did it in a way that our New Yorkers and our Queens residents are going to benefit.

So I think it is a complicated question to answer, but representing a progressive government, I think we're trying our best.

MR. PIPA: But what's interesting is actually -- and Nina talked about Los Angeles doing this as well, you're taking the SDGs and sometimes being more ambitious than what they even put out. And that forces a conversation I think at the city level then to say, okay, if these are our values and these are our priorities, then we have to think about how we might do this differently.

Karen?

MS. LIGHTMAN: And I think your statement -- and when we were prepping for the presentation here, it seems so nebulous. And then you think about well how am I going to personalize this, how am I going to effect change, I'm just one person or I'm just one community.

So I want to share a story with you about a project that Carnegie Mellon funded with support from our local foundations. It was taking technology -- again,

cameras. So cameras have come a long way. And thinking about issues of air quality. So we have a history of -- we're a steel city, we used to make steel in Pittsburgh. We don't really make it anymore, but to make steel you need something called coke, and there are these coke works that are smoggy, smelly -- yeah, you're nodding, you know. And we still have one, it's in Shenango and it's not too far from the City of Pittsburgh. And there was a neighborhood that could see the effluent coming from the coke works and the complained and complained to the EPA, the state EPA, the health department. And they were like, well, where's the information? We're getting the information from the plant and it's says that they're not polluting. And so what they did is they set up cameras -- this is with researchers at Carnegie Mellon -- set up cameras looking 24/7, 365 at the coke works, for the whole year, and was able to graphically show the particulate matter coming out of the coke works. And they were able to then drill down -- and, again, using machine learning, understanding what the particulate matter was, figuring out, okay, that's not good. The fire coming out of that coke work, that's not a good thing.

And so they were able to have a community meeting, confront the powers that be, and say we -- at the community level they had a meeting and they said we have the information, we have the data, and the department of health said we don't need any more hearings, we're shutting this thing down. And so they shut it down. And within one year ER visits for children with asthma went down by 30 percent. People with heart conditions -- asthma related heart conditions also went down. I can't remember what the percentage was -- let's say 30 percent. But the point is, the people of that community had their voices heard. They were empowered by this technology, they were able to effect change. And it's one of the Sustainable Development Goals.

And so I think that we can, if we use technology as a tool, as a power for good, we can effect change. It has to be, again, equitable. And so, little by little, I think

we can make a dent towards the Sustainable Development Goals.

MR. PIPA: And I think, again, that's the power also of data, but also of the targets that are in the goals themselves.

So, Grant, I'll turn to you, because I know you wanted to comment on this. And then you can wrap this into your final comments as well because we're at time. And I'll give everybody else a chance to say something.

MR. ERVIN: Great. I have 45 bullet points I want to hit here. (Laughter) Just to relate it to the gentleman's question, and it's a good place I think to wrap up actually, is that cities around the world are dealing with three major tectonic challenges. You have globalization, you have climate change, and you have urbanization. And it's these three trends that are I think fundamentally shifting the need for response from cities and the need to not just be progressive but to be proactive. And what's happening is we're up here on this stage, but there are networks of cities that are being formed more and more often because they're being called upon to respond and the traditional tools that were in the toolbox are no longer there, whether that's a state, federal, or provincial government.

So we've been forced to start to network together in order to find common cause and common solution. And it's within that though that you get these frameworks that have been created. And whether we were at the table in the beginning or not, I think one of the things that we start to find ourselves in is the need to find basically a framework of continuous improvement. Like from a sustainability standpoint and a resilience standpoint, there is no end state. You're not going to get to the nirvana of sustainability, but it's a pathway of finding how do you continuously adapt and improve. And while goals are definitely important to the attainment of that progress, the challenges are going to shift and the needs to find ways in which to respond are going to shift. You

know, likewise the partnerships are also going to have to be agile in their response to that.

So for us, it has become that framework of sustainable development that allows us to see our cities on this path of continuous improvement. So it might be the issues of housing or of affordable pre-K. How are we continuously finding ways in which to improve our cities and improve the opportunities that all of our residents have before them.

MR. PIPA: Thanks. So I want to give anybody a chance for one or two minutes, but we're a few minutes over time already. So any?

Okay. So I want to thank you all for a very lively and robust conversation. First off, I want to thank our panelists for both their leadership and their expertise, and their willingness to take on an ambitious, a global, yet something that has real efficacy locally, framework. So I want a big round of applause for our panelists. (Applause)

Thanks for your energy and engagement in this particular exchange as well. I think one of the questions I didn't get to ask is sort about the level of awareness of the SDGs amongst everybody's general population. I can tell from this room that the level of awareness is really high. So thank you for that and take that back and create demand in your neighborhoods, in your own communities, for what the SDGs can bring to you locally.

So thanks very much for being here. (Applause)

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