THE BROOKINGS INSTITUTION
THE BROOKINGS CAFETERIA: A global response to the climate crisis
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(Music)

DEWS: Welcome to the Brookings Cafeteria, the podcast about ideas and the experts who have them. I'm Fred Dews.

The United Nations Climate Action Summit takes place during the U.N. General Assembly Meetings in New York this month. How will global leaders address the continuing threats to Earth's climate? What role will non-government actors like business and world's young people be able to play in climate action? Does the U.S. still have a leadership role?

To answer these and more questions about addressing the threat from climate change, I'm joined in the Brookings Podcast Network studio by two experts. Amar Bhattacharya is a senior fellow in Global Economy and Development at Brookings, and was co-lead with Professor Nicholas Stern of the Sustainable Growth and Finance Initiative of the New Climate Economy.

Samantha Gross is a fellow in Foreign Policy and the Energy Security and Climate Initiative at Brookings. Her extensive experience in energy and climate includes service as director of the Office of International Climate and Clean Energy at the U.S. Department of Energy.

Also, on today's show meet Lindsey Ford, a new David M. Rubenstein Fellow in the Foreign Policy Program. She talks about her background, offers a book recommendation, and introduces an upcoming special series on Global China that she will be hosting for this podcast.

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Amar and Samantha, welcome to the Brookings Cafeteria.

GROSS: Thank you.

DEWS: So, let's start with some context setting about climate change. July was the hottest

month ever recorded on Earth. Earlier this month we saw Hurricane Dorian devastate the Bahamas. Scientists warn that warming seas are likely to result in more frequent and extreme weather events.

We've also seen large cyclones devastate Mozambique. A top United Nations official warned that climate crisis related disasters are occurring globally at a rate of one per week. So, how bad are the current impacts, and how sure are scientists that anthropogenic climate change is the root cause?

GROSS: Well, global average temperature has already risen about 1-1/2 degrees Fahrenheit or a bit less than 1 degree Celsius. And, you'll remember the goals of the Paris agreement are to limit temperature increase to 1-1/2 to 2 degrees Centigrade. We're more than halfway there already. Scientists are absolutely certain that this warming trend is due to human activity.

As far as the disasters that we're seeing, it's hard to definitively attribute any single weather event to climate change, although the science here is improving over time. However, there's no doubt that extreme weather of the kind we've been seeing, hurricanes, droughts, floods, are much more likely in a warming world.

DEWS: Amar, let's move from there to the upcoming United Nations communing on global climate change. The U.N. Secretary-General is convening at the global Climate Action Summit for world leaders at the U.N. Can you talk about the purpose of the summit?

BHATTACHARYA: The purpose of the summit is to inject the ambition and urgency that is needed in tackling the challenge of climate change. As Samantha said, really, there are two dimensions to this challenge. One is emissions have reached record levels, and with it the kind of global warming that we have seen, and the second, as you pointed out, the impact of climate change itself in terms of the devastation that it is creating.

So, the Secretary-General has pushed the idea that a 2-degree target is not simply enough. We have to aim more ambitiously. We have to aim for 1-1/2 degrees. If we want, in some sense, to mitigate the worst impacts, and we have to recognize the worst impacts follow the most vulnerable.

In that context, the climate summit is essentially, about getting the leaders to raise ambition, second, to get leaders to be put under pressure, especially from the young, and third, to set out an action agenda that is commensurate to the scale and urgency of the challenge.

DEWS: I'm going to follow up on that 2-degree target. That is a reference to the agreed-upon target from the 2015 Paris Climate Accord, right?

BHATTACHARYA: Absolutely. And, in that agreement it says we will limit global warming to no more than 2 degrees, and we will make our best efforts to be as close to 1-1/2 degrees as possible. But, because we have seen, since Paris, that the situation is much more dire, the Secretary-General is pushing for much greater level of ambition.

DEWS: Now, when you talk about impacts on the most vulnerable around the world, we just saw that in the Bahamas, for example. Also, another effect of climate-amplified extreme weather events is the displacement that it causes. People around the world are having to move from wherever they live to other places.

BHATTACHARYA: As they say, we ain't seen anything yet. The displacement factor will be massive. And, you know, we have to remember, we have dealt with climate change before in human history, but there were no national borders. People just moved.

Now, if you look at the African continent or you look at South Asia, you know, where are people going to move? Amongst the most vulnerable countries in the world is Bangladesh, with a population of more than 200 million people. Where are they going to move? Because, next-door India is not less crowded.

So, you know, the situation with displacement, the security issues that it raises, these are things we haven't even begun to see as yet.

GROSS: And, we're seeing political backlash already against immigrants of various kinds and refugees, and that problem only stands to get worse under a warming climate.

DEWS: Well, we just saw that with a statement President Trump made the other day about Bahamian refugees not being permitted to come here. Samantha, let me ask you, again, about President Trump. It's been reported that he won't be attending the U.N. Climate Action Summit. It was also reported that he skipped the climate meeting that was at the G7 in France recently. What impact does his absence have on relations with the other world leaders who are gathering in New York on global climate action?

GROSS: Well, the lack of American leadership on climate change right now is a real shame. The U.S. was super instrumental in getting the Paris agreement done and for pushing a lot of the really good parts about the agreement, pushing for climate finance, and for measurement and accountability in countries reaching their emissions goals. But, all that is gone now under the Trump administration.

Other leaders certainly care about these issues, but no country has really taken up that leadership mantle the Americans had. There's not a total vacuum, but the U.S. is hard to replace. But, all that said, if President Trump is just going to go to these meetings and be a total contrarian against climate action or just stir up discord among the participants, it might be just as well that he doesn't go.

Earlier in his presidency, I might have said that other leaders could have some positive influences on him, but a couple years in it doesn't seem that that's the case. And, so, if he's just going to go and stir up trouble, I don't think it's necessarily terrible that he didn't go to the G7 or that he won't go to the upcoming U.N. meeting, sad to say.

DEWS: So, the United States, as I understand it, is one of maybe only two countries that have formally withdrawn from the Paris Climate Accord. Is it possible that the Paris Climate Accord can continue to move forward with every other country in the world except the U.S.?

GROSS: Yes, I think it's entirely possible, and probable, in fact, that the Paris Accord will continue to move forward. But, it's definitely lacking some U.S. leadership. There are some things that the U.S., under the Obama administration, did a very good job of pushing for. And, so, there's not somebody

who's bring that mantle forward now.

But, I mean, the U.S. is about 15 or 16 percent of global emissions. So, the other 85 percent are still there, are still working within the goals of the Paris agreement, and are still moving forward. So, we're important, but we're not the center of the universe.

DEWS: Just kind of a general question for you both. The Secretary-General, Amar, as you've indicated, has warned that country actions to combat climate change are off-track and they have to increase efforts. How far do countries have to go? I mean, what kind of efforts are we talking about here to meet even more strict targets on emissions, for example?

BHATTACHARYA: So, science tells us that if you want to have a reasonable shot at the 1-1/2-degree target, we must be at net zero emissions by 2050. And, obviously what that means is those countries that are emitting the most have to cut the most. So, countries like the United States -- Europe is doing much better -- Canada, Australia, they have to cut quite drastically even by 2030. And, in a sense, that's what's embodied in the New Green Deal discussion that's happening in the United States.

So, the Secretary-General is really calling on countries to come to the table with these pledges that they will cut emissions by these targets. But, that is, in some sense, a false discussion, because it seems to put emission reduction as a cost. But, those countries that actually move most aggressively, they will be best position to be on a much better growth path.

This is the new competitiveness. So, those countries that act fast will have not only the benefits in terms of climate, they will have it in terms of growth, they will have it in terms of reduced pollution, they will have it in terms of reduced congestion and improved mobility. So, there are many, many co-benefits here.

So, the Secretary-General is also emphasizing, as we have in the new climate economy, that this is the growth opportunity of the 21st Century. So, it's completely about shifting the debate from the costs of action to the opportunities of action.

DEWS: I can see how that's an opportunity for advanced economies, like the U.S., Canada, Australia, or European countries, but what about less advanced economies, like India, like China? A lot of people say, well, the U.S. can cut emissions, Europe can cut emissions, but we don't see the same from China and India, so that's not going to solve the problem.

BHATTACHARYA: Actually, their opportunity to leapfrog gives them a very, very powerful benefit. You know, if China could do what it didn't, which is avoid all the congestion and the pollution and the sprawl they had, and invest it differently, they would be better off, and they realize that. So, in the new 5-year development plan, they are leading by leaps and bounds.

They are setting the way for more compact cities. I often say to people in Washington, it has taken us 20 years to design and build one Metro line. China is building 365 systems of the same kind. And, one of the reasons for it is because they want a carbon neutral, climate resilient world. So, I don't think that the emerging markets -- and the arguments in India has also shifted. And, in particular, there is growing recognition that coal is a big problem.

DEWS: Now, Samantha, you had a piece recently on the Brookings website about coal, both -- in the United States was in one piece, but then you had another piece about coal in India. Can you talk about those two examples a little bit?

GROSS: Yeah, absolutely. And, the situation is very different in the two countries. Here in the United States we have seen inexpensive natural gas really push coal out of our power system. And, the reductions that we've seen since about 2005 in emissions here in the United States, and a really important component of them has been replacing coal with natural gas in our electricity system.

So, coal here in the United States is really in a downward spiral, and it's not because of government policy. It's because of sheer economics, in that it's being out-competed by natural gas. The situation in India is different. India is really focused on its own energy security, and India has a great deal of domestic coal supply. It's also one of the least expensive fuels that they can use for power

production.

You're seeing renewables grow rapidly in India, wind and solar. But, as a source of baseload power and a lot of the legacy power plants that are there in India, they're primarily coal. And, so, you don't see this economic push to get rid of coal in India the way that you do here in the United States.

DEWS: Well, insofar as coal contributes carbon-based emissions to the atmosphere, we talk about decarbonizing economies. I mean, is it realistic even in the United States, much less India, to think about by 2020, 2030, 2050, decarbonizing these economies?

GROSS: Parts of these economies are easier to decarbonizes than others, and, so, rather than think of it as a whole, we have to think about starting on the easiest places first. And, the easiest place to start, particularly here in the United States is in the power sector. The renewable sources of energy that we think of, wind, solar, geothermal, those produce electricity. And, so, an oversimplified recipe for decarbonizing the economy is electrify everything you can and then use as much renewable power as you can. So, that's a place to start.

The parts that are more difficult are parts of the economy where the benefits of fossil fuels are more clear. Transportation is one. Electric vehicles for light vehicles are very popular now, but if you start thinking about shipping, aviation, heavy transport, the benefits of the energy density of fossil fuels really come through. And, so, those are more difficult.

What we need to do is work on the parts that we can work on and that are economic and that we have the technology for now, while we work on improving the technology for the sectors that are more difficult.

DEWS: As we've already talked about, President Trump is not participating in these global climate talks, these global climate conferences, and we know that he has disparaged renewal energy and tried to uplift coal. What do you see on, say, the democratic side of U.S. politics in terms of those who are running for president and kind of what democratic candidates are saying about some of these

issues.

GROSS: Climate change is definitely becoming a more prominent issue in the 2020 presidential campaign that hasn't been in past elections. And, in part, I think this is a backlash against Trump and his policies, his complete denial of climate change and his rollback of many environmental and climate regulations from previous administrations.

The democratic candidates for president agree on many of the climate issues. They all want to re-engage in the Paris agreement, and they're all in favor of a goal to reach net zero emissions around the middle of the century, which is in agreement with the goals that Amar has put forward. In the climate forums and in recent debates, I've also heard wide agreement about helping disadvantaged communities, workers who might be displaced during the transition, and enlisting non-energy sources like agriculture to help with the transition.

I found all these positions really encouraging, and I'm particularly happy to see us focus on issues of environmental justice for disadvantaged communities and also for programs to help those whose jobs might be displaced, coal workers, for instance. I feel like the Trump administration sold the coal industry a bill of goods by telling people that their jobs were coming back when actually they're being outcompeted by better and more environmentally-friendly technologies, and we need to think about some place for those workers to go.

DEWS: One policy approach that's been discussed by many, especially economists here at Brookings, like Adele Morris, is carbon pricing. I don't know that we're going to hear about pricing carbon on the campaign trail, but it is a market-based policy solution. Can you explain what carbon pricing is and how it could be a policy that would address climate change?

GROSS: The idea behind carbon pricing is that you tax the bad behavior. You tax the emission of greenhouse gases. Alternatively, you have a cap-and-trade system where people trade permits that allow them to emit greenhouse gases. Some of the democratic candidates are viewing it differently.

Some see it as a clear part of the solution, whereas others see it as too little too late with the pressing nature of the challenge at hand.

BHATTACHARYA: At the international level, there's also a lot of emphasis now being put on carbon pricing. There is now a Finance Ministers Coalition on Climate, and one of the priorities they have set is carbon pricing. I mean, what is interesting about carbon pricing is, it is so elegant and so simple, and yet it is so difficult.

So, a lot of the debate right now is, how do you address the political economy of it? How do you persuade, in some sense, the citizens that this is something in their interest? And, in the United States, where we are likely to face important fiscal pressures in the years ahead, carbon pricing can be a solution both to fiscal pressures and generating the revenues but also, of course, the incentives for changing behaviors, as Samantha pointed out.

GROSS: Yeah, one of the great political challenges with carbon pricing is getting the prices high enough to make a difference. And, so, we've seen carbon pricing systems around the world, particularly in Europe, that have been in place for a while that have a very difficult time keeping those prices high enough to actually change behavior.

DEWS: All of these issues, carbon pricing, emissions -- we're talking about a global issue. What happens in one country affects people across the world. For example, we saw this summer with the fires in the Amazon, not only did we see the emissions of smoke going into the air, but we saw the Amazon forest being cleared out for cattle farming for food production. Can you talk about the impact that land use has in a specific country, like Brazil, on the global climate crisis, something that affects all the rest of us?

BHATTACHARYA: Yes. So, land use actually is at the heart of the challenge, and it also emphasizes the interaction between climate change, biodiversity, infrastructure development, and land use. We have to remember that the population of the world was a billion 200 years ago. We are at

7,000,000,000.

The pressure that human beings are putting on the land is just extraordinary, and it is parceling land into smaller and smaller bits. It's degrading natural capital and it's threatening biodiversity. The growth model of the 20th Century was based on the destruction of natural capital. The growth model of the 21st Century has to be built on the restoration of natural capital. And, the Amazon is the lungs of the world. And, not only is it the lungs of the world, but it's a very fragile system. It is the only environment that creates its own rainfall.

If the Amazon disappeared, Latin America would turn into a desert. And, we are at a very delicate tipping point in the amount and the preservation of the Amazon. So, what is happening today in the Amazon is unacceptable for the world. It's not just Brazil's resources, it's really the world's resources. So, the outrage that President Macron and others expressed was very, very much (Inaudible) drawing the world's attention to it.

DEWS: I know that the president of Brazil, Bolsonaro, disagrees with that assessment, that it's the world resource. He believes it's Brazil's resource to exploit as his community sees fit. How do we deal, though, with the challenge of people, say, in a local community who want to clear a land because they want to grow food, because they're hungry? They need the food now, and the impact that their activity is having on the climate globally is not readily apparent to them. How do we address that kind of problem?

BHATTACHARYA: If you look at grasslands, you look at forestlands. Unsustainable use of land leads to the destruction of soil and the deplenishment of resources. So, the world is littered with what appears to be useless land but which was very productive land and has been just misused and taken to the extreme. And, there is no example that is more powerful than that of tropical rainforests.

So, cutting down tropical rainforests for second-rate agriculture is not the solution. It's actually saying where can we have productive agriculture? Where can we restore land? And, those are, again,

policies where we need, in some sense, strong international cooperation.

DEWS: So, we're talking about the U.N. Climate Action Summit. It's a gathering of world leaders, of government leaders. What about the private sector? What role does the private sector have in helping to address climate change?

BHATTACHARYA: Before you get to the private sector, maybe I should say that a particular emphasis of this U.N. climate summit are the youth. They will begin the climate summit on the Saturday with a strong focus on the role of youth. And, it is very strategic. It is to emphasize that they shall inherit the planet, and they are the ones who have the biggest stake.

And, the second one, as you said, is the role of the private sector. Why? They are the source of a lot of the innovation, they are the source of a lot of the finance that is available, and they are the agents that can bring about change. But, when they don't behave, they're also the agents of destruction. So, getting the private sector on board is very important, and there are many, many initiatives where the private sector will be featured in a very, very strong way in what will be announced at the U.N. climate summit.

DEWS: Let's talk more about that question of the youth. It's so important and heartwarming to see someone like Greta Thunberg sail over here from Scandinavia and meet with Jane Goodall, and she's meeting with world leaders in New York. Talk about the importance of her role in particular and youth, in general, as you were saying, Amar, in leading change in climate action.

GROSS: When we think about climate change, we tend to think things happening in the future, to future generations, whereas, we've reached a point today where people alive right now will see the impacts of climate change. I will see more impacts of climate change in my life. And, someone who's Greta Thunberg's age will see tremendous impacts from climate change within her lifetime. We're talking about people alive today.

And, so, the youth movement in particular, I think, really has the moral high ground, in an sense,

in this, to say you're impacting not some fuzzy future, you're impacting me during my lifetime and this matters to me personally. And, so, I feel like they really bring a moral imperative and put a face on the problem in a way that is really important.

DEWS: So, what gives you both hope? And, maybe it's the actions of youth, like Great Thunberg, but maybe it's the global political will, if it is there. What gives you both hope that the world will begin to address the climate crisis in the way that it needs to be addressed?

BHATTACHARYA: For me, personally, the two sources of hope are technology and innovation, which is changing the options that are open to us much faster than we had previously thought, and second, is a growing recognition in global citizenry, and especially the young, that we have to change our ways.

GROSS: I'm in complete agreement with Amar. And, the thing that I will add as opinions on climate change, they change the behavior of the private sector. I mean, you think about the kinds of investments that need to be put in place to shift our economy towards a lower-carbon economy. A lot of these are going to be made by the private sector. And, so, it's the individual decisions of consumers that drive the behavior of private sector companies. They look at the kinds of processes that they're running, the kind of products that they're making.

Government policy will help drive these changes, but additionally the private sector will be making these investments. And, so, as people think about climate in how they live their lives and how they make decisions, they'll drive the private sector to do new things, both through their reputation and through the kinds of products that they sell and processes that they run. So, as people become more aware, that will drive the solution, both through politics and through people's behavior in the economy.

DEWS: Well, Samantha, Amar, I want to thank you both for taking some time out to help us understand the issue and look forward to talking to you again. Thank you.

GROSS: My pleasure. Thanks.

BHATTACHARYA: Thank you.

DEWS: You can learn more about research on energy and climate at Brookings on our website, Brookings.edu. And, now, meet Lindsey Ford and find out how she traveled from opera to Asian studies.

FORD: Hi, I'm Lindsey Ford. I'm a David Rubenstein Fellow in the Foreign Policy Program here at Brookings, and I am working at the Center for East Asia Policy Studies. I grew up in Calgary, Canada, out in the Rocky Mountains, but I was actually born in Texas and I went to graduate school there. So, I still think of myself as a Texan at heart.

I think I got started as a scholar in sort of an unconventional way. My undergraduate degree was actually Music and Theater, so I didn't start off in the policy world. My first job after school was actually in an opera, playing a 5-year-old. So, it might seem like a bit of an about-face that I ended up here.

I think the common ground for me, actually, between theater and the policy world, was really desire on my part to understand more about the world, how it works, how people think. And, I think there are surprising similarities there. So, studying International Relations, getting into government, into the policy space, for me, was a great way to understand those problems, really, on a macro level, maybe feel a bit like I could actually help shape some of the direction.

I think the most important issue that we're facing today in the United States is the debate that's taking place about America's global leadership role, not just a question of whether or not America continues to lead in the future but how we lead.

So, to me, some of the questions that result from that are: Does the U.S. need to take a more restrained approach to military interventions overseas, or are we actually interested still in repairing and rebuilding the international institutions that we put together after World War II? And, if we are entering into a world that's more multipolar, are we having the right kinds of conversations with our allies, with our friends, and tending to those relationships in the right way that ensure we can respond to problems like China and Chinese revisionism collectively rather than individually?

What I'm really going to spend a lot of time focusing on right now is thinking about the future of the U.S. alliance system in Asia, in the Indo-Pacific region, looking at how the U.S. and its allies can create more effective coalition models, multilateral kinds of defense networks that are appropriate for the Asian region and different from the multilateral models that we've really established in Europe through NATO.

And, the flipside of the question that I really want to look at is understanding what China is doing to create its own security and defense partnerships and network in the Indo-Pacific region and what impact that's going to have on U.S. foreign policy.

If I could recommend a book right now to people, it's one that I've been re-reading lately that I really appreciate by Mike Green. It's called *By More Than Providence*. And, it's a pretty sweeping look at the history of U.S. engagement in Asia, how the U.S. has shaped its strategy toward the region.

There's a lot of debate happening right now about the U.S.-China relationship and how the U.S. needs to think about adjusting its policy toward China. And, what I really like about Mike's book is he helps you situate that relationship within the context of broader U.S. strategy in the region, and I think about how the U.S. has traditionally defined its interest in Asia. Mike lays that out really well, which, to me, is a really important part of the conversation when you think about how we need to approach China in the future.

DEWS: Lindsey Ford will be hosting a special series for the Brookings Cafeteria during the first week of October. In five episodes, one airing each day of that week, she'll talk with colleagues who are doing research on China's activities and footprint around the world. I asked her to talk a little about the project.

FORD: Brookings has just launched a new Global China Project. The aim of this project is to take a look, not just at how China has changed and the growing power and influence it's exerting on the global stage, but also to think about where the U.S.-China relationship is headed.

It was 2005 when Bob Zoellick urged China to become a responsible stakeholder in the international system, and we fast-forward to 2018 and the National Defense Strategy refers to China as a strategic competitor. And, I think this just highlights there have been some pretty seismic shifts that have taken place in the U.S.-China relationship in the past decade. And, it's really kicked off a vigorous debate about how the U.S. needs to approach China in the future.

So, this is going to be a 2-year project. It's led by Bruce Jones, the vice president of our Foreign Policy program. And, the aim is really to give policymakers and the public sort of a new empirical baseline to understand China's regional and global ambitions.

I think the great thing about this project is it's going to draw not just on the talent and the Asia hands but the talent of the whole Foreign Policy program. So, we'll have security folks, strategy experts, tech experts, the economic team, as well as some of our scholars on other regions of the world, too, the Middle East, Europe. And, that's really going to allow us to drill down on how China is exerting its influence across a range of spheres on this project, and I think that's going to make it really comprehensive and really useful.

DEWS: The Brookings Cafeteria Podcast is the product of an amazing team of colleagues, starting with audio engineer Gaston Reboredo and producer Chris McKenna. Bill Finan, Director of the Brookings Institution Press does the book interviews, and Lisette Baylor and Eric Abalahin provide design and web support. Our intern this Fall is Eowyn Fain. Finally, my thanks to Camilo Ramirez and Emily Horne for their guidance and support.

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