CLIMATE SENSE

"The arduous path to a global climate agreement"

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Episode Summary:

Addressing climate change must be a global undertaking, even though the world's wealthy nations have been responsible for most of the global warming to date. In this episode of "Climate Sense," Samantha Gross speaks with experts on why climate is such a challenging political problem, what it took to get an agreement in Paris in 2015, and how the world can collaborate on this thorniest of global problems.

[clip montage: Obama, Biden; music]

GROSS: Climate change is the ultimate global tragedy of the commons problem. Greenhouse gases emitted anywhere in the world contribute to rising temperatures over the whole planet—they are very different from smog and other kinds of local air pollution we're used to dealing with in our daily lives. So, addressing climate change also needs to be a global undertaking, although the world's wealthy countries have been responsible for most of the warming so far. But getting the world's nations to agree on a path of action is not a simple task.

[clip: Trump; music]

I'm Samantha Gross, director of the Energy Security and Climate Initiative at the Brookings Institution. I started my career in engineering and have been in Washington, D.C., for 20 years now, working on energy and environmental policy—on practical solutions to some of today's most important problems. On this episode of Climate Sense I'll be talking to three guests with experience in international efforts to reduce greenhouse gas emissions and avoid the worst impacts of climate change.

The United Nations is the body created to deal with global problems. And the UN first raised climate change as an issue way back in 1972 and created its framework for international agreements on climate change at the Rio Earth Summit in 1992. So, how is it 30 years after that and we are *still* haggling over the details of how to deal with climate change?

The reason is that climate change is a *very* thorny issue. If I were to try to design a problem more difficult for the world's people and nations to deal with, I don't think I could come up with anything better. Dealing with climate change means greatly reducing the world's use of fossil fuels—the fuels that brought us the modern world, are central to our lives today, and have corresponding political influence. The effects of climate change are likely to be large over time, but are sneaking up on us, since each individual episode of extreme heat or flooding or drought can be explained away. But their growing frequency and severity are the hallmarks of climate change.

Climate change also involves arguments between wealthy and developing countries—the richest countries are responsible for the lion's share of greenhouse gases in the atmosphere today, but now nearly all of the emissions growth is coming from developing countries. And developing countries stand to suffer the worst effects of a changing climate.

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Clearly we're all in this together and wealthy countries need to help poorer ones reduce emissions and adapt, but we're talking about huge sums of money and economy-changing levels of effort. No easy feat. And the UN process is consensus-based, adding another layer of difficulty.

David Victor is a professor of innovation and public policy at the University of California in San Diego, a colleague of mine at Brookings, and also a real renaissance man on all things related to climate. I asked David to explain why climate is such a challenging political problem.

VICTOR: What's amazing is we made any progress because there are so many structural barriers to getting something done. First, you've got this problem that fundamentally what you need to do is control emissions related to carbon dioxide pollution. Carbon dioxide is a long lived gas, which means that what really matters for the climate is the buildup of that gas over time—many, many years, many, many decades.

So, in effect what you have to do is pay a lot of money today to cut emissions. And you know, the cost of cutting emissions is going to come down with technological changes, but it's not free. So, you pay money today and you do things that disrupt the interests of incumbent interest groups who know who they are today and are organized against you for benefits that are mainly in the future caused by this accumulation of carbon dioxide in the atmosphere.

GROSS: Dealing with carbon dioxide emissions means greatly reducing or eliminating our use of fossil fuels. Fossil fuels are a two trillion dollar industry globally, central to the world's economy today and with tremendous political clout. Compare their political force to that of the world's poorest people, who stand to suffer the most from a changing climate.

VICTOR: So, you have high upfront costs that hurt industries that know who they are, and distant benefits, both in terms of distance and time, and then also distance in space. And so, the benefits are mostly in the future for people who are not very well organized or don't exist, who haven't been born yet. And they're actually mostly in other countries.

When you look at the overall cost to the planet of climate change caused by the emissions from any individual country, the costs are mostly borne by other countries. So, it's kind of not surprising that we haven't made a lot of progress on the problem that is structured like that.

I think what makes it additionally difficult is that if you really want to stop climate change, then you have to essentially eliminate global emissions. And so that means it's an international cooperation problem. So, you've got to get countries to cooperate, do things that are seen potentially as hurting their economies and hold that cooperation together without the benefit of strong enforcement mechanisms.

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And so you've got these two interrelated problems: the structure of the costs and the benefits, near-term versus the future, and then this big international cooperation problem on top of it. So, I think that's fundamentally why it's been so difficult to make progress.

GROSS: The interplay between the wealthy world and developing countries is a thread that carries us through the history of global efforts on climate. The first global climate agreement was created in Kyoto, Japan, in 1997—the Kyoto Protocol. It was a landmark agreement, structured with a strong divide between wealthy and developing countries—including legally binding

commitments for wealthy countries to reduce their greenhouse gas emissions, but with no requirements for the developing world to reduce their emissions at all.

Todd Stern is the perfect person to walk us through this history. He has been involved in climate policy since the Clinton administration in the 1990s—as senior White House negotiator at Kyoto and later as the chief U.S. climate negotiator during the Obama administration. He has been present at the birth of all the world's major climate agreements and brings years of perspective to our discussion.

STERN: I knew this from the beginning having been at Kyoto and having been involved in climate change for a couple of years in the in the Clinton administration, and then and having stayed with it since then. There was a basic kind of paradigm in the negotiations, which assumed a sharp divide between developed and developing countries. The clearest example of that was Kyoto itself. It was often referred to as a "firewall" between developed and developing countries.

GROSS: The United States under the Clinton administration was key in the development of the Kyoto Protocol. But since the Protocol had binding targets for emissions reductions in wealthy countries, it was structured as a treaty, which required a two-thirds majority of the U.S. Senate for approval. And the Senate refused to ratify the Kyoto Protocol, concerned about the lack of emissions reductions from large developing countries like China and India.

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China's emissions were rising rapidly at that time, and China overtook the United States as the world's largest emitter of greenhouse gases in 2006.

In my own work in the 2000s, especially when I travelled to Europe, people would ask me, "If X happens, will the U.S. ratify Kyoto?" "Now that President Obama is in office, will the U.S. sign on to Kyoto?" And my answer was always a resounding "*no*, *never*, not gonna happen."

The Kyoto Protocol was extended to last through the end of 2020, but its limitations became clear early on. Greenhouse gas emissions in developing countries without emissions reduction targets were growing rapidly. When it came time to think about something to replace the Kyoto protocol, dealing with the divide between what the wealthy countries were willing to do and what the developing world needed to do was crucial, a topic I'll explore in a later episode in this series.

Todd refers to a "firewall" that the Kyoto protocol set up between wealthy countries and the developing world, and chipping away at that firewall was an important goal. Also key was finding an agreement that the U.S. could accept. This process started at the Conference of the Parties, or COP meeting, in Copenhagen in 2009 and continued through the following years leading up to the Paris Agreement in 2015. Here's Todd with more of the story.

STERN: I was coming in 2009, and one thing was clear to me at that time was I didn't want to have the United States go through that again where we agree and then can't join. Not good for us, not good for the world. So, we knew we had to change some things. And there was all sorts

of negotiations that went on all through the year and through that the Copenhagen conference, the Copenhagen outcome and the conference have generally been regarded as a huge failure and and vilified all over the world.

But in fact, really important things happened that planted the seeds for Paris. It put developed and developing countries on more of a similar footing–not the same, but on more of a similar footing than than had happened before. It was sort of chips taken out of that firewall. And, and so the developed countries and all the major developing countries agreed to to submit targets for reducing their emissions to the secretariat of the UN body that governs climate change.

GROSS: All the press after the Copenhagen conference was about the continuing acrimony between wealthy and developing countries and the complete lack of any agreement coming out of the event.

However, Copenhagen was the beginning of an important innovation—the "bring your own goals" climate agreement. Rather than imposing the same emissions goal across countries like the Kyoto Protocol did, the UN was beginning to ask countries what emissions reductions and actions they were willing to contribute. This was an important step on the road, although it wasn't recognized at the time.

STERN: But a lot of countries still were very focused on, no we need a big, legally binding agreement. We still need to have a new mandate for a new negotiation for a new legally binding agreement. There was a great deal of support for that and became the driving focus for 2011 for the conference that ended up in South Africa.

The other thing that is obviously true, is that to the extent that the Paris agreement that we negotiated was the type of agreement that needed to go to the Senate for advice and consent, where you would need to get two-thirds of the vote, we would probably be right back into the into the Kyoto trap of agreeing to something and then not being able to join it because we couldn't get Senate approval. And we didn't want that.

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GROSS: As the years went by and negotiations slowly continued on a replacement for the Kyoto Protocol, the annual climate meeting in Paris in 2015 became the focal point for a new global climate agreement. The stakes going into Paris were high—this was the make-or-break meeting where negotiators were tasked with coming up with a replacement for Kyoto that was both ambitious enough to make a difference and popular enough for most of the world's countries to sign on.

Success was definitely not guaranteed, but events that took place in 2013 and 2014 between the U.S. and China really got the negotiations off on the right foot. At that time, China's greenhouse gas emissions were more than twice those of the United States, the number two global emitter. Both countries needed to sign onto any new agreement for it succeed.

Todd Stern was a key participant and I'll let him tell the story of his relationship with the *key* climate negotiator from China.

STERN: I was very engaged with Xie Zhenhua, my counterpart, from the very beginning and going all the way back to March of 2009. I met him in Washington and I said right away, you know, we should try to make climate change a positive pillar in our relationship. We obviously have different perspectives, but we should really try to work together because this could be a place where we could cooperate. And he was open to that, and I think we worked really hard at it. We liked each other a lot. I mean, just, we connected very well from the beginning.

And ultimately, you know, I took him to my hometown. He took me to his hometown. He had he had, he came to dinner at our house with my wife and kids, one, you know, one day. And lots of things that were very positive in that sense.

GROSS: This relationship between the top two climate negotiators in the top two greenhouse gas emitting countries became steadily more important over time. The two men were central to a groundbreaking agreement between the two countries.

STERN: When Obama hit his second term, right from the beginning of the second term, he was really focused on climate change. Kerry came in and—John Kerry—and climate change was an issue of the heart for him. He'd been the sort of leading senator on climate change. He came in wanting to up the ante with China. establishing a new high-level joint working group on climate change between the U.S. and China.

Obama met with Xi Jinping, who had just come in that year as the president, had their first meeting in a place called Sunnylands in California, and the big so-called deliverable that had that came out, and it was on climate change. It was on the regulation of a certain kind of industrial gas called HFCs, and that was a good start.

So, that sort of positive stuff continued between the U.S. and China during 2013. And then at the beginning of 2014, Kerry called me up to his office and said, basically, what are we going to do for an encore? We had a meeting in our windowless conference room where we where we spent lots of our time and came up with the idea that the two presidents could together announce their proposed targets for the Paris Agreement at the end of 2014, when they would be meeting anyway in China because there was I think an APEC meeting scheduled there.

In negotiating this, we put out a statement saying that we were going to work together in developing our targets, you know, we were going to exchange sort of technical-level cooperation. We did not say anything about a presidential announcement. We kept that secret. And for a very good reason because we couldn't know whether it would happen until we saw each other's targets. If we looked at the Chinese targets and said, that's not good enough, we can't have President Obama wrap his arms around that.

So, we had to keep it secret. Amazingly, it kept dead secret. And we negotiated all year. And it wasn't just the targets. The targets were embedded in a in a relatively short but actually quite important statement that said that the two presidents were going to work together to overcome

any obstacles that might come up during the year of 2015 to make sure that we could get Paris done.

Anyway, it came together in the end and it it did keep secret. And when it was announced with, you know, the president, the two presidents in the Great Hall of the People, you know, walking down the aisle together and then going up to the podium and announcing this, it was absolutely electric.

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I mean, it was it was sort of front page news all over the world and reporters were shocked. And other countries were shocked. And it was a huge jolt of momentum, positive momentum for the Paris Agreement.

And when we got to Paris a year later, 185 countries had already put in their targets. Right? I mean, it was really quite amazing. So, it was a big deal, the China deal.

GROSS: I was working in International Affairs at the U.S. Department of Energy when the agreement with China was announced and I can vouch for it being dead secret—I found out from the newspapers like everyone else. And you can't overstate how very important the deal was. We had the world's two largest emitters, one country still developing and the other the world's largest economy, and they announced ambitious goals and support for Paris negotiations *together*. The announcement really sent the message that the negotiating process and the resulting agreement were for everyone if such different and often antagonistic countries came together to support it. I agree with Todd, it was huge.

The Paris Agreement was designed to deal with an important shortcoming of the Kyoto Protocol—the fact that it didn't ask for action from developing countries, the source of most growth in greenhouse gas emissions today. Paris developed as a "bring your own goals" agreement, with each country contributing its own actions: reducing greenhouse gas emissions and preserving forests and other carbon sinks—different depending on the circumstances and income level in each country.

Ideally, the sum of all these actions would be enough to limit the average global temperature rise to "well below 2 degrees Centigrade" above the pre-industrial level.

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We're not there yet, but the agreement also calls for each country to revisit its goals every 5 years, with the idea that they will become more ambitious over time as technology improves and gets cheaper, and through a bit of peer pressure among nations.

Since the Paris conference in 2015, the world has begun to focus on an even more ambitious goal: limiting global temperature rise to 1.5 degrees Centigrade. Recent science shows that this limit is important to preventing the worst impacts of climate change. As we talked about in the

first episode, average global temperature is already 1.9 degrees Fahrenheit, or about 1 degree Centigrade, above the pre-industrial level. To make this goal, we'll need to hurry.

Even with the nonbinding, "bring your own goals" structure, getting details of the Paris Agreement done was a hard slog. But Paris was the first time that the overwhelming majority of the world's countries signed on to an agreement about climate *action*. The how of dealing with climate change was and still is partially up in the air, but the direction of travel for the world became much clearer after Paris.

My friend Maria was present at the creation of the Paris Agreement and has a developing country point of view.

ESPINOSA: I am Maria Fernanda Espinosa, I'm an Ecuadorian woman, a diplomat, and politician. I've been taking part in climate negotiations for the past 20 years. And I have been head of my country's delegation to COPs for the last 10 years. And I have been very, very active. I was among the ones without sleep for three weeks in Paris and as president of the UN General Assembly, as well, I put a lot of attention to climate and the future of climate stabilization.

GROSS: I met Maria when we were both fellows at the Bosch Academy in Berlin, and we had many conversations about climate action and how to move forward despite the differences among wealthy and poorer countries, and fossil fuel producing and importing countries.

ESPINOSA: And the Paris Agreement is by itself a very important outcome of global co-responsibility with regard to climate negotiations. We didn't sleep for almost three weeks. It was very difficult. But at the end of the day, we had a common denominator. And I'm saying common denominator without using the word minimum common denominator because we knew, even at the beginning that if the equation and the arithmetics of mitigation weren't enough, but at least it was a starting point. And basically that allowed countries to really assess their own national capacities, have a plan, and contribute.

GROSS: The Paris Agreement was clearly a leap forward. But no international agreement is perfect and there were plenty of people pointing out its flaws. A key challenge is that the goals that each country brings to the agreement are voluntary. There's no mechanism, other than peer pressure, to force countries to achieve those goals. Here's Todd again:

STERN: And, yes, of course there were various commentators afterwards saying, Well, it's just a voluntary agreement. It's not, you know, it's not mandatory, it's not going to do any good. But it could never be that.

It was something I always sort of suspected was that that in fact, if you made the targets binding, you would have reduced their force.

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You would have reduced how much countries were willing to do because they'd be afraid of missing their target if it was binding.

GROSS: It still remains to be seen how countries will do in meeting their goals. So far, the results are mixed. The science is becoming clearer over time and we're seeing more impacts of the changing climate right now. But Paris really marked a transformation not just in the world's ambition and commitment to action against climate change, but in how the public views climate change. Climate has gone from a wonky issue of concern only to scientists to an issue that inspires concern and activism around the world. I'll devote a whole episode later on to this change, and spend much more time with Maria. But for now, she sums it up perfectly.

ESPINOSA: Basically, when the climate negotiations started 25 years ago, the discussion was very much science based, very technical. It was considered an environmental issue that we needed to address. And little by little, it became a center of geopolitical interest and geopolitical struggle.

[French language clip from the UN]

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GROSS: Many thanks to the experts I talked to in this episode. Fred Dews is the producer; Gastón Reboredo the audio engineer; and Matt Murphy the audio intern. My thanks also to Louison Sall and the communications teams in Brookings Foreign Policy and the Office of Communications. Show art was designed by Shavanthi Mendis.

You can find episodes of "Climate Sense" wherever you get your podcasts, and learn more about this show on our website at Brookings dot edu slash Climate Sense Podcast. You'll also find my work on climate change and research from the Brookings Initiative on Climate Research and Action on the Brookings website.

I'm Samantha Gross, and this is "Climate Sense."