THE BROOKINGS INSTITUTION
Climate Sense podcast

"Your questions for Climate Sense"

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Episode Summary:

This episode of Climate Sense is a Q&A with host Samantha Gross, including questions sourced from our listeners on a wide range of topics from climate as a national emergency, to electrification, bipartisan action, and adaptation versus mitigation. Concerns about the speed and consequences of climate change are valid and at times quite scary, but that doesn't mean we should not talk about the energizing and hopeful potential of climate solutions.

[lightning sound; music]

GROSS: In this "Climate Sense" podcast, I've focused on what I wanted listeners to understand better about our changing climate and what we can do about it—in terms of technology, policy, international relations. In this episode, I've turned the tables and am letting you choose the topics.

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 for 20 years now, working on energy and environmental policy—practical solutions to some of today's most important problems. "Climate Sense" is intended to help people understand climate change—both its causes and the solutions we're working toward. You can find all the episodes in the series at Brookings dot edu slash Climate Sense Podcast.

This wrap-up episode of "Climate Sense" is about what's on your mind about climate change. I've asked for listener questions over the past few episodes, and you all sent them to me through email and social media. I'll answer some of them and I brought in a couple of my expert friends to help.

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Listener Sam from Instagram sent us a note asking why climate change hasn't been declared a national emergency. Are we still in denial? I brought back David Victor to answer this one. He's a nonresident senior fellow at Brookings, a professor at UC San Diego, and an all-around climate guy.

VICTOR: I think it's a sign that there are lots of things people are worried about. Health care is a national emergency in a lot of different places. Immigration in some places, an emergency. The pandemic is an emergency and was declared so by in varying ways, by many governments and by some governments collectively.

And so, climate is that kind of a problem, but it's even longer in duration. And so, I think you don't actually gain much by declaring an emergency around climate. Sometimes you have greater powers. And in the case of United States, some of those powers that are available to the president might otherwise not be available.

But one of the challenges then is that if you declare emergency, then the next president could un-declare the emergency or declare a different emergency. And then you in effect have an arms race around emergency declarations as opposed to a serious long-term and credible program.

And I think that's the really key message from all this work that we do around industrial decarbonization is that almost everything that's interesting is capital intensive and really benefits from a long time horizon, a long investment perspective. And where investors don't see that, the cost of borrowing, the cost of capital, is higher, the attractiveness of projects is lower, the kinds of projects you do are more scattered.

And so, what you want to do is create a reliable long-term signal about action in the space and something that's easy to do and therefore also typically easy to undo is the exact opposite of a prudent policy strategy.

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GROSS: Yeah, I hear you saying that the emergency declaration is more politics and less an indication of seriousness of policy.

VICTOR: I think that's right.

GROSS: Listener Kim emailed to ask us to consider ways of getting around other than cars, even the shared automated and electric vehicles discussed in episode five—Planes, Trains, and Automobiles (but mostly automobiles).

So, I asked my friend Adie Tomer, who is a senior fellow in Brookings Metro, to join me to talk about other modes of transportation and how we design cities around walking, biking, public transit, and how maybe we can all get out of our cars.

TOMER: So, there is a huge tension in the transportation industry right now and it's really been brewing for a few decades, which is, is the solution to our transportation related emissions problem to be delivered through cars or is it going to be delivered through getting us out of cars?

So, on the one hand, you've got a mix of both the automakers, especially in American context the homebuilders, and other folks who generally are supportive of an automobile focused, maybe an automobile dependent built environment and the lifestyle that comes with that. And look, the vast majority of America is paved, if you will, and it is built for cars. It is hard to get out of, you know, if you don't live in especially certain coastal markets and you have the means, chances are your household, whatever the number of driving age people is in it, that is how many cars you have, and you probably use them for most of your trips each day. So, those folks in their mindset, they're thinking in terms of path dependencies, we can't get out of that built environment, but we can electrify our vehicles.

Then on the other side, you've got this group which are the quote unquote urbanists, right. These are the people who want denser neighborhoods, more walkability, theoretically, more of that kind of bumping into one another that we talk a lot about in terms of agglomeration and industry.

But it's really about how can we start to retrofit the neighborhoods that America's already built to make them more attractive to use—honestly, for most these folks, it's non-motorized travel, but if it's going to be motorized, let's do it in a shared fashion, let's take transit. Doing that retrofit is not going to be easy or cheap, but we have plenty of these neighborhoods that do it. And there's a tremendous amount of market demand pent up in the U.S. for these kinds of neighborhoods. And you see that in places like Washington, D.C., where both you and I spend a tremendous amount of time, but really almost all the large and even smaller metro areas where they're building these like walkable town centers, sometimes in the suburbs, sometimes retrofitting older neighborhoods closer to the core.

And, you know, a kind of final point here that connects this all. The honest approach is we're going to have to do both. We have to electrify our vehicles, because the vehicle fleet turns over far faster than the built environment changes—anywhere from 10 to 20 years, depending on how you measure it. And getting those electric vehicles on the road is going to absolutely help our chances to keep the global temperature change lower, which of course helps the overall situation.

GROSS: You know, this seems to me like really an urban versus rural question. And I think of the various places I've lived—I grew up in a very rural area where the overwhelming majority of trips are taken by car. I live in Washington, D.C. now where I own a car, but I drive it maybe 4,000 miles a year. I've also lived in Europe where I didn't need a car for anything. How much can we really do with our two feet, realistically, with the built environment we have in more suburban, exurban, rural areas where the overwhelming majority of trips right now are taken by car?

TOMER: Yeah, this is the big problem. If we had an easy answer, we'd already be doing it. I can tell you what the answer isn't. It's not running a bunch of really expensive transit lines, specifically rail transit, into places where no one's going to use it. You know, that's a really expensive use of sunk costs, including GHG emissions on the manufacturing side and the installation side.

And then it's a waste of money and GHG emissions to run mostly empty trains and busses. No one wins with that except a few folks who cut a ribbon and can pat themselves on the back for saying they built more rail transit.

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GROSS: Do you really think Americans will ever be willing to give up the freedom of a car? Like, it's interesting for us to sit here and talk about the possibility of a car free future or of a future less dependent on cars. But politically, are Americans willing to go there?

TOMER: I like to think that where Americans live at the neighborhood scale is less tied to our psyche than we maybe pretend it is. There's this kind of nerdy joke that's made in transportation circles that a railroad, like especially for transit, it's not a Democratic piece of technology. It's just a piece of technology. An apartment building dates to Roman times—living denser is just a tradeoff you make to get other benefits of living in proximity to one another. The car is a powerful innovation—and by the way, my household owns multiple cars. Right? The car is incredible, but it's also a power that has to be controlled on a certain level. And we've done a really poor job of that in the U.S.

And that's why I emphasize we're hiding the costs of the car. If nothing else, environmentally, both in terms of the environmental justice impacts of that, the global climate impacts of that, where we, of course, all share in these GHG emissions to a certain level. But also there's an economic injustice to it too, that for so many folks, you know, it's the number two household expense in America is transportation. It's not the number two expense in other parts of the world. We've we're so addicted to this vehicle because of its power that we don't realize all the compromises we're making.

The final point I'll put on this is an example—it's always telling to me that Americans take these joy trips to Europe or even to New York and then go passionately take public transportation and note how great it is when you have that frequency and density of a network and how it just takes you to all these places. You don't feel like you're missing the car because you've designed an urban environment where you don't need it. That's why I emphasize it's not just running transit lines to places.

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It's actually redesigning whole neighborhoods, if not whole metro regions from the ground up for that kind of reality. We need to give people that real choice or else they're going to keep picking the car.

GROSS: Listener Raman asks, with climate change hitting red state populations harshly, particularly the southern coastal regions of the United States, do I think that political will to address climate among Republicans may change? How might that be translated into real policy change?

Raman, I ask myself this question all the time. One of the reasons that I talk about climate change not just as an environmental problem, but also as a problem of economics and security and people's lives, is that I don't want to alienate those who just don't care much about the environment. Climate and the environment have gotten caught up in our polarized politics, but the effects of climate change don't discriminate by party.

A bright spot for me is that it's not just the dangers of a changing climate that strike Republican areas—the economic benefits of a transition to a greener economy accrue there also. Just one example: Texas has three times more installed capacity to generate electricity from wind than any other state. The next three in ranking are Iowa, Oklahoma, and Kansas. Why is there so much renewable electricity in these red states? Because these states are in the Great Plains, where it's windy! These are good investments for utilities and the local economies benefit.

Aspects of the Inflation Reduction Act, which we talked about in the episode on U.S. climate policy progress, are likely to bring even more benefits to red states, through more growth of renewable energy and development of manufacturing for green technologies, like batteries and electric vehicles. We've heard too much emphasis in politics about the costs of responding to climate change and not enough about its benefits—not just preventing damage from a changing climate, but economic growth created by transforming our economy.

I suspect that over time, residents of red states will see the benefits of the Inflation Reduction Act, and our response to climate change in general, accrue to their communities and they'll begin to like it. Once people understand that the benefits of climate action are for them, I think you'll see public opinion among Republicans slowly move.

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At least that's my hope. It's an argument for implementing new programs as quickly as we can, so those benefits can start flowing, because we need to keep the political will to do more.

GROSS: Ruodanxu wrote to us on Instagram asking if it's time for the world to focus more on adaptation to climate change and less on mitigation, meaning reducing greenhouse gas emissions. Let's hear more from David Victor on this question.

VICTOR: Yeah, I think you have to focus more on adaptation and you kind of have to walk and chew gum at the same time. You have to work on mitigation, which is a long-term problem, requires international cooperation, because all that matters in mitigation ultimately is the global mix of greenhouse gases.

Whereas the politics of adaptation are really very different. They're almost all about local investment. They're actually easier politics than the politics of mitigation because the benefits accrue locally. And frankly, even if you don't believe in climate change—higher sea levels, stronger storms, more extreme droughts, wildfires and so on—those things that we actually know are happening with greater probability because of climate change, so if you don't prepare for them, you suffer. And if you do prepare for them, you suffer less or maybe even radically reduce the suffering. And so the incentives to do something are much greater.

So, I think that's actually an easier problem for governments to address and for individuals to get their get their heads around them.

Yes, there needs to be a lot more attention. I think what we're seeing on the ground is actually exactly that: is a lot more attention to adaptation responses and so on, precisely because people realize that this is real.

GROSS: It's great that the politics are such that we can get adaptation investments done, but do you worry at all about under investing in mitigation because of that?

VICTOR: People often say that there are these moral hazard problems, that for a long time the claim was made, for example, that thinking about solar geoengineering, this kind of magical solutions where you could change the reflectivity of the whole planet and then offset in a crude way some of the effects of climate change, that by thinking about that, that you were creating moral hazard and would lead society not to pay enough attention to controlling emissions.

I never was persuaded by those arguments because it seems to me that if you're thinking about something so grand and crazy as potentially engineering the entire planet with unknown side effects, that's in some sense evidence of how serious the problem really is.

And I believe the same is true in terms of adaptation. The fact that an individual community can make investments to reduce, typically not eliminate, but reduce the effects of climate change like building seawalls, other kinds of preparedness efforts—

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—the fact that you can do that doesn't mean that you also don't have a huge stake in lessening those impacts over the long term through ultimately the only real solution, which is controlling the emissions that go up in the atmosphere or pulling some of those emissions once they're up in the atmosphere out.

GROSS: I think there's a deeper question imbedded in there though, beyond how much money we spend adapting to climate change versus preventing it. By asking if we should start focusing more on adaptation, I wonder if the listener is concerned about mitigation being a lost cause. Is the world on track to meet its climate targets? Limiting global temperature rise to 1.5 degrees Celsius has become a rallying cry and a minimum goal to be taken seriously in many circles. But is limiting temperature rise to 1.5 degrees even possible now?

VICTOR: I think the 1.5 degree target and the reality that we're not going to meet that target is really going to force at some point the need to reckon with how we set goals. We for too long have set goals in ways that are disconnected from what governments control and have also been too ambitious and therefore frankly not that helpful. Governments do not control the global average temperature, at least not right now. They at best have an impact on the trajectory of emissions that then itself has an impact on global average temperature.

And so, setting goals in temperature terms was already several steps removed from ultimately what you're trying to do with international cooperation on climate change, with national policies and so on. So, there's been that problem.

The much bigger problem is that the 1.5 degree goal was never achievable. We're at 1.2, maybe 1.3 degrees, depending on how you count. And we're accelerating and we're going to blow through 1.5. I think we're gonna blow through 2 degrees. And so I understand why a goal such as the 2 degrees goal were originally set, kind of a North Star, a compass. But then over time, that North Star turned into almost slavish, detailed direction, but never really connected back to the actual rate of industrial change, the rate of climate change.

I think one of the big challenges for governments right now is that the political cost to being the first person to say, "Hey, 2 degrees is not achievable," that political cost is massive. I co-wrote a paper in Nature in 2014 saying, "We're not going to, 2 degrees should be ditched because we're not going to achieve it, and also this a wrong way to frame goals." And we've got a huge amount of blowback. And that us, you know, some lowly scientists. I can only imagine the adverse incentives for a politician to say, hey, everything we've been talking about here is not achievable, because what you want to do is focus on real action. And how do you frame goals in ways that stay a little better connected to real action. And that's been a big challenge.

GROSS: I worry personally, we've gone from talking about 2 degrees down to talking about one and a half degrees. I feel like what we're able to do and the goals that that politicians are talking about are diverging, even. It concerns me. How about you?

VICTOR: Yeah, I mean, that's a concern. I will say that that a certain amount of this is high frequency noise, people saying things about goals that are unachievable. When you look then at individual firms, especially firms that are under the greatest pressure to do something and they're under pressure for a variety of reasons—they're worried about license to operate, they're worried about regulatory exposure. European firms are more engaged than most firms in the rest of the world because those pressures are greatest. But those pressures have created an incentive for these firms to go off and figure out how are we going to do this? How are we going to control emissions? They've set a lot of goals like net zero by 2050 or even earlier where they don't really know how they're going to meet those. But if they treat those goals as a kind of a North

Star at best, and then it inspires lots of experimentation and learning and scaling up real solutions, then that's the theory of change that that will result in real progress.

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What's exciting to me is when you look at the theory of change in the real world, it's actually working. A decade ago, we were on track for maybe 5 degrees of warming. Now we're on track for maybe two and a half degrees of warming, maybe a little more. Some people think less. I don't see that in the data yet, but that's progress. And those are the yardsticks that we should be using for assessing whether we're actually starting to bend the curve.

GROSS: Even if we're very unlikely to meet the most ambitious goals for limiting temperature rise, we are going in the right direction. The world has made significant progress in limiting climate change. And it's likely to continue to do so as existing technologies get better and cheaper and new technologies mature—as we've discussed throughout this series.

I'm not Pollyanna, we have a long way to go. But I think that it's very important not to feel hopeless or helpless, because those feelings freeze us into a state of inaction. Instead, I want to leave you all energized and hopeful—understanding that work is needed, but that we can prevent and adapt to the worst impacts of a changing climate. Thankfully, human ingenuity is an inexhaustible resource.

The last listener question I'll cover comes from Andrea in Virginia, who asked if we would do a season two of Climate Sense. I'm super flattered by the question and I'd love to do a second season. This has been a fun project for me and I hope all of you out there have found the series inspiring and informative. If you have topics you'd like covered in a potential season two, send us an email at podcasts at Brookings dot edu, or ping me on the socials. I'm on Twitter @SamanthaEnergy.

Thanks so much to all of you for listening.

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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. Many 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."