THE BROOKINGS INSTITUTION BROOKINGS CAFETERIA PODCAST

WHAT DOES SUCCESS AT THE GLASGOW CLIMATE CONFERENCE LOOK LIKE?

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

Global leaders are gathering in Glasgow in the coming weeks as the United Kingdom hosts the 26th United Nations Climate Change Conference of the Parties, known as COP26. As global temperatures continue to rise, the calls for action on addressing the climate change threat rise as well.

On this episode of the Brookings Cafeteria podcast, I interview a leading expert on global climate policy and financing for climate action. Amar Bhattacharya, senior fellow in the Center for Sustainable Development at Brookings, shares his perspective on what will make COP26 successful, what sustainable and inclusive approaches to climate mitigation look like, and what gives him hope for the future.

Also on this episode, John McArthur, senior fellow and director of the Center for Sustainable Development, reflects on the Center's first anniversary, noting significant accomplishments of Center scholars and looking ahead to projects to come, including the "17 Rooms" podcast.

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First up, here's John McArthur with a Sustainable Development Spotlight ON the Center for Sustainable Development.

MCARTHUR: Hi, I'm John MacArthur director and senior fellow in the Center for Sustainable Development, here with a sustainable development spotlight, a regular segment to highlight work from the center.

What a difference a year can make. Last year on October 21st, 2020, our Center for Sustainable Development, or CSD, was launched around a vision of providing leading research, insights, and convenings to advance global sustainable development and implement the Sustainable Development Goals or SDG's within and across all countries, including advanced economies.

With more than 130 public products under its belt within its first 365 days research papers, journal articles, book chapters, policy reports, blogs, op-eds, podcasts, public events!—CSD just hit its first birthday.

Remembering our public launch event last fall, the Deputy Secretary General of the United Nations Amina Mohammed joined us, we were so honored, and she challenged the center, and here I quote, "to strive to be a beacon of inspiration for the pursuit of sustainable development in all countries and communities around the world." Those were her words.

One year later, CSD scholar teams have taken up that challenge with vigor, making contributions across a wide range of sustainable development topics. Let me share just a few examples.

Amar Bhattacharya co-chaired the UN Secretary General's independent expert group on climate finance. And he's recently been named a member of the World Bank-IMF High Level Advisory Group on sustainable and inclusive recovery and growth. He's also serving as an advisor to the Coalition of Finance Ministers for Climate Action and an advisor to the presidency of COP26, the major UN climate summit coming up in just a few days in Glasgow.

Marcela Escobari and her Workforce of the Future team, including people like Natalie Geismar and Ian Seyal, focus on advancing job and place specific worker mobility across the United States. Among other highlights, their mobility pathway tool generated considerable public interest, including high profile coverage in the New York Times. We're extremely proud that earlier this year President Joe Biden nominated Marcela to serve as USAID assistant administrator for Latin America and the Caribbean. In the meantime, she's continuing to press forward with her research while awaiting Senate confirmation.

George Ingram drew from his amazing policy experience to publish a series of important papers following the 2020 U.S. presidential election, including a prescription for renewing U.S. Global Partnership in a post COVID-19 world. This past July, George partnered with Publish What You Fund to convene a public event on transparency and development assistance for gender equality, which generated several new commitments to improve donor reporting on aid for gender equality. George also issued a call for a U.S. initiative to help bridge the global digital divide among low- and middle-income countries.

Homi Kharas has been prolific in contributing to global economic debates and empirics during the COVID-19 crisis, with special emphasis on steps to avoid a developing country debt crisis amid the deepest and most widespread global recession in modern history. In March, the UN Secretary-General recognized Homi's research with Megan Dooley as foundational to his UN report on liquidity and debt solutions to invest in the SDGs. Impressively, Homi was recently named alongside Amar to serve on the High-Level Advisory Group on Sustainable and Inclusive Recovery and Growth.

Tony Pipa and his team, including Max Bouchet and others, have been advancing a remarkable range of efforts on localized leadership for sustainable development. This ranges from our global SDG leadership cities community of practice to a partnership with the UN Foundation to expand and connect American leadership on the SDGs within communities across the United States. It also includes an influential effort to reimagine U.S. federal policy for U.S. rural development, informed by lessons and changes in policy and practice for sustainable development overseas.

We're extremely proud in the center of our collaboration with the leaders of the Center for Universal Education at Brookings, who amount to the education team for CSD. I never go anywhere on SDG 4 for quality education without talking with CUE codirectors Emiliana Vegas and Rebecca Winthrop, who both made enormous public contributions over the past year. Emiliana for example, co-authored a seminal study on the global cost of COVID-19 school closures on earnings and income, and Rebecca has been a driving force in the global movement to advance education for tackling climate change.

For my own part, I've been privileged to co-chair the 17 Rooms Initiative in collaboration with the Rockefeller Foundation, powered by an amazing new secretariat team hosted within CSD, including Alexandra Bracken, Shrijana Khanal, and Jacob Taylor.

The 17 Rooms Initiative now includes both an annual flagship process and the growing 17 Rooms X community of practice, which is helping universities, communities, regions, and now even countries to advance localized action, insight, and collaboration processes for the SDGs. The flagship products will be published in November, followed

by a new podcast mini-series of conversations with all of the amazing flagship room moderators. Watch this space.

All told, it's been a big year for our center, but we're always looking forward. Over the coming year, we're planning to launch a major new effort on gender equality and to ramp up work on aligning the private sector with the SDGs.

And we'll be excited, soon to announce the first-ever cohort of nonresident scholars.

But wherever we've arrived so far, and whatever we've accomplished to date, all of it is only possible thanks to so many people around Brookings, and an extensive network of colleagues, collaborators, contributors, champions, and even constructive critics around the globe. We're so grateful to be part of such an extraordinary undertaking in the center. But it's our responsibility to ensure we contribute even more over the year to come.

Thanks so much.

DEWS: You can listen to more Sustainable Development Spotlights on the Brookings SoundCloud channel and learn more at

brookings.edu/sustainabledevelopment.

And now, here's my interview with Amar Bhattacharya.

Amar, welcome back to the Brookings Cafeteria podcast.

BHATTACHARYA: Thank you, Fred.

DEWS: It's very nice to see you again, and I'm glad that you're able to take the time to join us now to talk about a very important United Nations climate change

conference that's happening, or about to start happening, in Glasgow, Scotland—COP26. What are the priorities of this conference?

BHATTACHARYA: The conference, first of all, is chaired by the United Kingdom. Each COP is chaired by a president and this year's president is the UK, and they set the priorities for the COP. They have set four priorities. The first is to secure global net zero by mid-century and keep a one-and-a-half-degree global warming within reach. Second, to adapt, to protect communities and natural habitats, especially in poor and vulnerable countries. Third, to mobilize the financing that will be needed to match this ambition. And, fourth, in a somewhat arcane way, to enhance the collaboration around what is called the rule book so that one has the implementation means to deliver on the Paris Agreement.

DEWS: And as a long-time observer of, of COPS and participant in these kinds of things, do you think these are the right priorities now to meet the climate action goals and the climate challenge that we have?

BHATTACHARYA: I believe so. The backdrop is twofold. One is we had a IPCC report that was, you know, extremely alarming and indeed they called it the red alert for the planet because it showed that global warming was happening faster and with more certitude. And the window that we had for action is very limited. So, hence great urgency as we go into this COP.

And the second is a recognition that in order to keep global warming to one and a half degrees, the world must find a way to reach net zero emissions by 2050 and to do it not by postponing all the cuts to the latter part, but to begin here and now. And I think what we have seen is many of the big emitters, especially from the industrial countries,

have stepped up, perhaps not yet enough, but certainly by a much greater amount than at Paris. And at this COP there will be a lot of focus, therefore, on the sufficiency of ambition.

But beyond that, also, we will be looking at what are the actions that are needed when in some sense the agenda that I laid out does focus on the key priority areas that will be needed to deliver on that one-and-a-half-degree target.

DEWS: So, this conference, COP26, lasts about two weeks into mid-November and thinking back to the COP that was in Paris in 2015, which resulted in the big Paris Agreement and the nationally determined contributions, each individual country could set their own emissions reductions targets, so a very specific plan of action came out of that Paris agreement. What, in your view, would be a successful outcome of the Glasgow conference?

BHATTACHARYA: Ideally, a successful outcome of the Glasgow conference would be exactly like you said, which is will countries come forward with these nationally defined contributions. Now they are called NDCs, that's the accepted term. And the question is, will there be sufficiently ambitious NDCs from countries that together add up to this ambition of limiting global warming to one and a half degrees. That has to be the ultimate benchmark. Where are we likely to be? Short of that. So, we will see progress towards that, but not sufficient progress.

But the good thing is that this is a benchmarking exercise. We as academics, you know, civil society, the business sector, everybody is now focused on this net zero objective. That's a big difference from Paris. Paris was about voluntary contributions. Let's shift the game. Let's make it more cooperative. Let's, we are in this all together.

But this time round, what is different is we do have a north star, and that north star is one and a half degrees. And so, we will all have to ask ourselves, are we doing what it takes as a country, as a business, as civil society to try and reach that net zero objective? And I think the answer will be that we will see a cup that is filling up but not sufficiently fast. And that will give a lot of momentum going beyond COP26 to keep the pressure to deliver on the one and a half degrees.

DEWS: Could you expand a little bit more on that net zero target? And what does it mean, and what is the timeframe?

BHATTACHARYA: So, the science of it is very clear. Global warming is related to the concentrations of carbon dioxide and related gases in the atmosphere. And of course, these concentrations of gases are driven by the increase in emissions year after year. And we are now at 410 gigatons of carbon a year. And that kind of level we will keep adding more and more carbon. And if we do not stabilize this concentration, temperature will keep increasing. So, the answer is to, of course, stabilize concentration, meaning we have to reach net zero at a point in time. And if we want to limit global warming to around one and a half degrees, we must reach net zero emissions by 2050 as a world, and we must do it in what we call a concave way, which means the path to that net zero must be such that the increases happen earlier rather than later.

DEWS: I want to turn now to a piece that you co-authored with Nicholas Stern, it can be found on the Brookings website, brookings.edu, and you and Stern called this, the piece is titled "Our Last Best Chance on Climate." Can you define what you mean by last chance? Do you mean this year, this decade?

BHATTACHARYA: Well, first of all, to give credit where it is due, that is a quote of Secretary John Kerry as he approached COP26. And we quoted him intentionally because, as you know, the U.S. was out of the climate negotiations—not the climate negotiations, out of the Paris Agreement briefly. It has come back in. And we see COP26 as a very important step towards meeting this goal of limiting global temperatures but also adapting to climate change. So, it's not COP26 that is the last chance, but it is in some sense COP26 as a recognition that it is our last chance.

So, how much time do we have to stabilize temperatures so that we can be on that path to one and a half degrees? Probably about 10 to 12 years. That's an extraordinarily short amount of time given the kinds of shifts we need to make. But on the other side, we now know that those changes can be made and not only that they are not costly, but that they can pave the way for a newer and better form of growth.

So, the last chance we see is COP26 and the recognition that the world must act within this finite horizon of the coming decade and leading to a result that we get to net zero by 2050 and that the vulnerable part of the world adapts to a world of climate change that is already upon us.

DEWS: Well, in staying with that piece that you co-authored with Nicholas Stern, and again, I'll link to it in the show notes for this episode, and you've argued this before, that it's not enough to just cut carbon emissions from polluting sources like legacy power plants, auto emissions and other places. Rather, you're saying that there has to be the investment in things like sustainable and resilient infrastructure, energy, and transportation systems. Can you explain that term "sustainable infrastructure"? Or also resilient infrastructure. And how do those kinds of investments address the climate crisis?

BHATTACHARYA: So, let's break the world into two parts. The advanced economies and China to some extent, which has built most of its infrastructure. And the challenge there is, indeed, retrofitting. But there's a tremendous opportunity because, as you know, a lot of U.S. infrastructure is aging and polluting. The same is true in many other advanced economies. And there's an opportunity to replace this aging, inefficient, and often polluting infrastructure with better, smarter infrastructure. That's the proposition for the advanced economies.

In the developing world, the story is very different. In the developing world we are starting with very low levels of infrastructure. The demand for infrastructure is going to grow with development needs. On top of that, we will add two billion people to the planet in the next three decades. All of them will be in the developing world. So, what does that mean? There will be a tremendous demand for new infrastructure in the developing world, and we have an opportunity to build that infrastructure completely differently than we did in the developed world. We have an opportunity, in other words, to leapfrog just like we did with mobile telephony. So, in the case of, particularly, energy, now we have an option in the developing world to produce electricity from the sun and the wind and the Earth and do it at lower costs than the fossil fuels that we use today. We have an opportunity to build a better, more compact cities. We have an opportunity to go all electric on transport. We have an opportunity to make our buildings more energy efficient.

So, these are tremendous gains, not just in terms of climate. They are tremendous gains in the sense that they have core benefits associated with it. Less pollution, more vibrant ecosystems, better communities. But it requires large upfront investments. And

so, whether we are retrofitting old capital or whether we are building new capital in a better way, the challenge with the world right now is to make the scale of investment for the transformation of the planet and for development, and to do it with the kind of smartness and the sustainability that we know and that is now possible.

DEWS: It strikes me, though, that the investment that you're talking about is going to have to come primarily from the developed world. We've heard before the argument for many years from the developing world that the emissions crisis, the pollution, the climate crisis has been largely caused by a century of emissions from you guys in the developed world as you developed your industry. And now, you know, our countries want to develop. So, who's going to pay for that kind of investment?

BHATTACHARYA: So, the good news is actually most of the investments we are talking about are commercially viable investments. So, when you look at a renewable energy plant today, it's much cheaper than a coal fired power plant. Second, an investment can be undertaken now by the private sector. So, much of what we are talking about actually is creating the enabling environment for private investment to flow in and for that to be financed with reasonable cost of capital, which has some challenges, but is certainly feasible.

On the other hand, you're absolutely right that there will be transition costs that have to be borne. Just to give you an example, the United States has the same number of coal-fired power plants as India does. They are about exactly the same. But in the United States, they are all aging power plants, and the United States has the wherewithal to say, well we are going to phase them out.

In the case of India, a lot of those power plants are relatively young. And if the world says to India, we want you to shut off those coal-fired power plants and invest in renewables, there will be a cost. And somebody has to bear the cost. So, it is entirely appropriate for a country like India or South Africa or Indonesia to say that we need the world community to pitch in on this and help with the kind of financing that we need. But on the other side, as I said, a lot of the new investment can be undertaken by the private sector and really without huge amounts of subsidy. So, we can have a win-win outcome, but there must be fair burden-sharing.

DEWS: In a similar vein, Amar, in terms of costs, benefits, and opportunities, you and others have written that the decarbonization of economies will cost jobs in certain industries like coal, for example, but will, on net, increase development and inclusive growth. Can you explain that?

BHATTACHARYA: Yes. The proposition is as follows that, the industries that are going to be hit are the industries of yesterday, and the industries we are trying to go grow actually can be very job intensive, not just renewables, but the whole low carbon energy proposition, the whole infrastructure for low carbon, hydrogen, and electric vehicles, a new kind of green steel. There are lots of job potential.

Indeed, a recent study that was just released Monday this week from the ILO and the World Resources Institute documents that the green transformation can create far more jobs than, in some sense, the jobs that are left behind. But that doesn't mean that the jobs that are left behind are without cost. We see this in trade, we see this in lots of structural dislocations. Yes, jobs can be created somewhere. But if they are lost somewhere, we have to find ways for managing that structural change.

And what is correct is that we are going to see unprecedented structural change in the coming two, three decades. And governments have to react proactively to manage those structural changes, both through training, education, skills development, but also by investing in people and places. We have to find ways of managing the just transition. But on net, the benefits to humanity and the benefits to the economy and the benefits to the planet will be much greater.

DEWS: In terms of policy solutions, you and others have also written about something called a carbon price. Can you explain to listeners what a carbon price is and the degree to which it's a necessary component of the overall policy approach here?

BHATTACHARYA: So, a carbon price is very simply what us economists call pricing or taxing the bad externality. The emission of carbon is a negative externality. It's a penalty that is being imposed on the rest of the world. And so, if we tax that externality, if we price it, there will be an incentive by businesses, by people, individuals, households, everybody to cut carbon in their consumption. And the pricing of carbon is a market-based solution and incentive-based solution, and hence the most efficient way to reduce carbon emissions.

And it is one that economists strongly favor. But it is one that often we find difficulty in imposing from a societal and from a political point of view. Here in the United States, for example, we have not yet succeeded in kind of adopting a carbon price. And what we have are local jurisdictions which have kind of partial what we call carbon trading schemes as a proxy for carbon pricing. But getting carbon pricing will be absolutely imperative if we want to bring about the shift at the scale and with the pace that is needed.

DEWS: Right, it's often portrayed by its opponents as a carbon tax, which, as you said politically, just makes it nearly impossible to get passed.

BHATTACHARYA: Yes, but it can be made revenue neutral, which is, you know, you can collect the tax and give it back to the people. If people don't want to pay the tax, it just can go back. Indeed, it can go back, it can be used for financing things that could accelerate the low carbon transition, like research and development. It can be used to meet the costs of just transition. So, yes, it's a tax in the sense that revenues are being collected, but it's not a tax in the sense that it will leave necessarily people with less money in their in their pocketbooks.

DEWS: As we wrap up here, Amar, I'd like to go back to something that you mentioned near the beginning of this conversation and have referenced throughout. And that's the 2021 IPCC, or Intergovernmental Panel on Climate Change, Report on global warming, highlighting the grave risks of warming in excess of 1.5 degrees Celsius over pre-industrial levels. So, that's a target that's been out there limiting global warming to no more than 1.5 degrees, I learned recently that we're now at about 1.1 degrees Celsius higher than those pre-industrial levels. So, can you just put it kind of in stark relief what will happen if we exceed that level?

BHATTACHARYA: Well, it depends, it depends what your value systems are. But there is a virtuous and vicious cycle between climate, the planet, society, and economy. Just to give an example, if we go to one and a half degrees, we will probably lose 70 percent of the coral reefs of the world. If we go to two degrees, we would likely lose all the coral reefs of the world. We are already seeing massive loss of biodiversity and degradation of ecosystems. That will greatly accelerate.

And, from a scientific point of view, the higher we go, the more unknown the path. There are what we call tipping points, which is you reach a point where in some sense, system change accelerates. The melting of polar ice is an example, the melting of the Antarctic Ice Shelf or Greenland Ice Shelf—all of these are things we don't understand fully. We do know that there is a major risk that the ocean currents, for example, could turn off and or alter greatly, which could have catastrophic impacts in different geographies. And we certainly know that extreme events will increase greatly. We are already seeing that. And it's not that these events will be distributed in some uniform manner. We will see great aridity in places, we will see great flooding in other places. In other words, we don't even know how to fully measure the costs.

So what IPCC does is to make very clear that the differences in extreme weather events, the differences in secular trends, and the differences in the ability to absorb shocks, tremendously different. It's not a linear proposition between one and a half degrees and two degrees. There are very, very significant scale differences between the two. And scientists therefore say that anything other than one and a half degrees, we are playing with the future of the planet.

DEWS: So, here we are on the eve of COP26, the 26th Conference of the parties, to a conference that I believe started in 1994, and also given the risk that the IPCC report just has been talking about, what, if anything, Amar, gives you hope that the global community, the individual nations, will be able to take the steps necessary to address the climate crisis?

BHATTACHARYA: There are actually many strands of hope open. The way to think about it is to break it down into the stakeholders that make up our global

community. And of course, the COP has been, you know, essentially about countries. And, you know, it is at that level where there is a lot of focus. You know, we say that China is not doing enough. We say that India is not doing enough. And at that level now, you know, we have 130 countries that have committed to the net zero goal. So, you know, yes, quite a few large emitters haven't, but the pressure for all of us to get on board the train is very high, and I think everybody recognizes that we have to be on that train.

The question is, how is the remaining carbon budget of the world allocated equitably? And the developed countries will say we have committed to reduce our emissions by 50 percent by 2030, let's say, and to get to net zero by 2050. And the developing countries will say, you actually need to do more because you put the carbon out there and you need to cut it even more.

However, I would say that we are getting to a point where we recognize it's actually about the collective delivery of the goal that matters. And we have to find ways to kind of come together, but also have some fair burden sharing.

A second aspect of hope, I think, that to my mind is extremely important, is that businesses are coming together. At Glasgow we will have something called the Glasgow Financial Alliance for Net Zero. It has already reached ninety trillion, and we will see from them commitments on net zero, and we will see commitment to support actions to get to net zero. So, the business sector now is solidly behind this.

Third, I don't have to emphasize, but civil society now is solidly behind it. Public opinion is now behind it.

But the last part I think that will really play to self-interest is that the technological possibilities now allow this to be a win-win game. Those countries that

move faster, more aggressively on climate action will find themselves in the competitive lead for the growth story of the 21st century. And as more and more countries recognize that, yes, they will want to act because it's in the interests of climate, but they will see that it is also fundamentally a story about a new, more vibrant, more dynamic, more inclusive, and more resilient form of growth.

DEWS: Well, that puts more hope into my soul as well, Amar. So, I know as COP26 gets underway in Glasgow and after you'll be providing your expert analysis about what's going on and what's happened. So, we'll look forward to learning more from you in the coming weeks and months about this topic. So, I want to thank you now for sharing your time and expertise with us today. Thank you.

BHATTACHARYA: Thank you, Fred.

DEWS: A team of amazing colleagues makes the Brookings Cafeteria possible. My thanks go out to audio engineer Gaston Reboredo; our audio intern this semester, Nicolette Kelly; Bill Finan, director of the Brookings Institution Press, who does the book interviews; my communications colleagues Marie Wilkin, Adrianna Pita, and Chris McKenna for their collaboration. And finally, to Ian McAllister, Soren Messner-Zidell and Andrea Risotto for their guidance and support.

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Until next time, I'm Fred Dews.