

# 2022: This Year in Climate

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**Greg Dalton:** This is Climate One. I'm Greg Dalton. As 2022 comes to a close, producer Ariana Brocious and I are taking a look back at the past year - the highs and the lows.

**Ariana Brocious:** And what a year it's been. This year's Atlantic hurricane season was one of the costliest on record - Hurricane Ian alone caused an estimated \$67 billion in damages - and killed around 150 people. According to the New York Times, the total cost of hurricanes has gone up elevenfold since the 1980s - and that's adjusted for inflation.

**Greg Dalton:** Yeah, and those are costs that affect all of us - even when it's not our own home that's destroyed. There was also good climate news this year. The Inflation Reduction Act is the biggest investment in clean energy that this country has ever made. It offers carrots to companies and individuals to electrify everything and signals a big shift from passing climate policy to implementing it.

**Ariana Brocious:** Yeah, we're going to see the ripple effects of the IRA for years to come. But the biggest international energy story of the year was Russia's invasion of Ukraine, which has weaponized methane gas supplies, disrupted global energy markets and threatened a nuclear disaster. In the summer, you spoke with Roman Zinchenko, co-founder of Greencubator, an organization focused on building a green economy in Ukraine and Eastern Europe. He spoke to you from Kyiv about his daily life and what it feels like to be working in the middle of an ongoing war.

**Roman Zinchenko:** So, I'm lucky that all the lives in our family, everybody's fine. We have no properties destroyed. We do have the friends serving in the army now. We do have friends and partners who were either wounded or killed during the fights. And we are getting the information firsthand and that's eye-opening. So, first, it's shocking, then like, from my perspective from my experience, it's a kind of tremor and maybe panic. And then you are starting to act because in my case, the practical action is something you can use to calm the fear, to calm the uncertainty. So, we

saw millions of people leaving the country. We helped many of them. One of our projects was building a shelter for the mothers with kids that were going overseas. And also, we have a different front which is the front of economy, the front of business. The front of education where we are serving. We lost a lot of brilliant people. We lost a lot of our heritage. We lost a lot of our economy. On the other hand, it shows how adaptable we are and how we are able to reinvent the way of living under a tough situation.

**Greg Dalton:** How do you compare adapting to war to adapting to climate change, those things that operate on different time scales and have a different human face?

**Roman Zinchenko:** I think there is a real danger in terms of climate change that it's not so visible. You can't hear in the morning that the rockets are hitting your city. Yes, so with the climate change sure, there are some wildfires in the forests, but the danger of the climate change comes slowly and it creeps in until someday you just see that your land is no longer fertile without irrigation and you just cannot ensure irrigation on this land because the water levels in the rivers were lost. So, the war is loud. The climate change not always.

**Greg Dalton:** How is the war connected with climate and how does Russia view renewable energy?

**Roman Zinchenko:** Well, there is a very interesting document of the Russian national security strategy which directly quotes the proliferation of renewable energy, new energy sources and energy efficiency as a direct threat to Russian national security. The current invasion is fossil funded and it's funded through building the energy dictatorship. We are paying the big price, the tragic price for the world to see that to witness that to understand that. We are paying the price of the thousands and thousands of lives lost and cities and villages razed from the earth. But still, we are holding, we are a resilient country. We have resilient communities. And I think that this period would be also a huge push towards the new opportunities for Ukraine as the player in the energy field, as the player in sustainability field and as a player also in the business field.

**Ariana Brocious:** Amazing to hear his hope and optimism.

**Greg Dalton:** That's so powerful to hear him talk about war and climate is the stealth threat that sneaks in and creeps in until one day it explodes. That's really powerful. And then to hear him say that, and then his optimism and resilience and dedication to changing the energy equation in Ukraine and beyond.

**Ariana Brocious:** Yeah, it's great to hear these voices. It gives you hope.

**Greg Dalton:** Boy, if they can confront those sorts of things, we can certainly do it here.

**Ariana Brocious:** You also spoke with Amy Myers Jaffe, Director of NYU's Energy, Climate Justice and Sustainability Lab, about the global implications of Russia's invasion.

**Amy Myers Jaffe:** Many of us understood the climate emergency but for those who were not on board with the speed and pace of change we needed from the climate emergency, many of those citizens are now understanding that this high dependence on Russian oil or oil from other countries that might be inimical to Western democracy, that this is a problem. And of course the big solution to that problem is the move off of fossil fuels and to other sources of energy that are domestically produced like solar and wind. So we know where we want to go. It's just a question of the speed at which we can do it. We're in a war. We can feel like that war is far away and doesn't involve us, but because we're participating through financial sanctions in supporting our allies in Europe, that means that we are involved in the transaction of trying to stop the further military activities of

Russia. And that involvement means we need to reduce how much oil is used in the world. And we need to come up with replacement supplies for the oil we cannot reduce in the short term.

**Greg Dalton:** And certainly during World War II, people rallied around the rationing of gas. People bonded, felt patriotic, that common sense of purpose. And I think that you're right, were we're horrified by what we're seeing, these bombings and Ukraine. I'm not sure it's, it's felt come yet to that, that level of it -

**Amy Myers Jaffe:** Yeah it hasn't sunk in yet that you can make a donation to the Red Cross, but you could also get out of your car. And that would also contribute to helping Ukrainians and the whole process. I mean, when you think about the climate emergency and you think about wanting to support democracy in Europe, the action is the same. You need to use less fuel. You need to not use oil when you can. You need to think about ways to reduce your carbon footprint, which are also ways that are going to reduce the amount of money going to Russia. All of those things are the same. We're waiting for someone to do it outside, or we could do it ourselves. Listen, Vladimir Putin is counting on the fact that people will refuse to get out of their cars and people will refuse to put their thermostat down one degree. He is counting on that for the money to fund his war machine. And if we can't take that on board, then he's going to be right and that's going to be a tragedy and it's a tragedy for the climate.

**Ariana Brocious:** And it's still an open question whether the war in Ukraine will ultimately accelerate Europe's transition to renewable energy or lock in dependence on fossil fuels for even longer. But a recent [report](#) from the International Energy Agency indicated renewables are poised to overtake coal as the largest source of electricity generation globally by early 2025, driven in large part by this war and global energy crisis. And there's more good news: California finalized laws requiring that - beginning in 2035 - only zero-emission cars can be sold in the state. Washington and New York quickly followed suit. And one piece of good news: the US Senate ratified the Kigali Amendment to the Montreal Protocol.

**Greg Dalton:** And I've got some strong feelings about this. Maybe it's because I'm a climate nerd. This got surprisingly little press coverage, but it has huge implications for the climate. And it's notable that Republicans and industry were on board for ratifying Kigali, which is rare alignment these days. It doesn't get much media coverage but this could reduce global warming temperatures by half a degree centigrade.

**Ariana Brocious:** Right. And just to explain: Back in the 1980s, the nations of the world agreed to the Montreal Protocol; this was a major international treaty that banned the production and sale of chlorofluorocarbons (CFCs), which were destroying the earth's protective ozone layer. The problem was that these CFCs were then replaced by another class of refrigerants called HFCs. HFCs don't have the same effect on the ozone layer, but they are absolutely devastating greenhouse gasses.

**Greg Dalton:** The Kigali Amendment bans HFCs as well - This is a big international win.

**Ariana Brocious:** As you mentioned earlier, the other huge legislative victory for climate this year was the passage of the Inflation Reduction Act. The IRA allocates around \$370 billion to invest in renewable energy, make EVs more affordable, address climate inequities, and reduce greenhouse gas emissions. This is by far the biggest piece of climate legislation the country has ever enacted. You recently spoke with Former White House National Climate Advisor Gina McCarthy about the significance of this law, which some environmentalists criticized for including provisions that would also benefit the fossil fuel industry. You asked her if she thought there were too many handouts for dirty energy in the law.

**Gina McCarthy:** No, actually, I thought it was really well done. It was nowhere near balanced, Greg, I mean that whole bill is by estimation gonna reduce a gigaton of greenhouse gasses and get us on its own to 41 to 42%. And if you combine that with regulations that EPA's already announced and is going to move forward with, you know it'll allow us to achieve a 50% reduction by 2030.

**Greg Dalton:** Greenhouse gas emission, right.

**Gina McCarthy:** Yeah. And so, no, there are very few fossil incentives directly in the bill. Now I understand that there are folks that are really concerned about some of the oil and gas drilling that is in this second part of the discussion and commitment. But really, I think we have to recognize a couple of things that this is the most historic step forward by far: 3 to 4 times the level of anything we've ever accomplished before. And we know that fossil fuels have to be shifted over and clean energy has to be the future for us. But we also know that that's not going to be tomorrow. I mean look at what's happening in Ukraine. Look at the impact that that has had in our country in terms of the cost of fuels and what it's doing in the EU and other places. I mean it tells you or ought to tell you you know two things. That we have to be smart about energy security in terms of how we wean away from fossil fuels. It is not a spigot that we can turn off. If you think you want to help environmental justice communities, the Inflation Reduction Act provides \$60 billion of investments there in environmental justice communities and 60 billion in the Bipartisan Infrastructure Law. If you want to join with me and others who care dearly about environmental justice, then think about how we can get there in a way that does save families' money. In a way that does allow us to invest in our future and be more energy secure. These small issues I get it they are symbolic, but many of them we have to just put into a larger context and framing that we are shooting for really a 2050 net zero. I would rather get there in 2035, but I will understand that I can't get there by 2030. It's just the way it is.

**Greg Dalton:** This is Climate One. I'm Greg Dalton, joined by Ariana Brocious, as we look back at this year in climate.

**Ariana Brocious:** We had many deep conversations this year about the state of our democracy.

**Jaime Raskin:** We have to save the democracy in order to save the climate and save our species.

**Ariana Brocious:** That's Congressman Jaime Raskin. As a former constitutional law professor, he's thought a lot about the connections between an informed citizenry and a robust democracy. As Russia's war against Ukraine grinds on, funded by its fossil fuel exports, Raskin says democratic governments around the world need to unite.

**Jamie Raskin:** All of the autocrats and dictators and kleptocrats of the world have found each other, grouped around the petro states and the exploitation of the earth and the destruction of our ecosystem by sticking to the old carbon model that's choking off the planet. And so the democratic movements and peoples and governments of the world have got to get together to defend democratic institutions and democratic processes so that the vast majority interest of the people on earth can be vindicated in making the break from the carbon kings and the carbon dictators. The struggle for democracy is the struggle for the truth and for science and to save us from climate disaster.

**Greg Dalton:** Jamie Raskin's son Tommy died by suicide in late 2020. Congressman Raskin has written about how that personal pain, combined with the January 6th violent attempt to overturn the presidential election, galvanized him to defend truth and democracy. I asked him how that has also affected his thinking about the climate emergency.

**Jamie Raskin:** I mean the young people are pretty panic-stricken about climate change and what's taking place. And I know that from my own kids and their friends, and I know it from the young people that I meet every day. And my son Tommy wanted a lot more from democracy and not a lot less from it. And had high hopes and expectations for what could be done. And he of course lost his life to depression. But, I think that for me, the struggle to defend the truth is a precondition for defending our democracy and the struggle to defend our democracy is a precondition for taking the effective action that needs to be taken in order to meet the climate crisis in a serious way and turn it around. And this should be a moment where democracy is secured and released and emancipated in every country on earth and the democratic peoples of the world get together to confront climate change.

**Greg Dalton:** Some people don't talk about climate change because they think it is depressing. How do you navigate that in your own life? Talking about it? Cause it's seen as a downer, sometimes or scary. People don't know what to do about it.

**Jamie Raskin:** You know, I think that that's been true of all of our great challenges. I mean, there was literally a rule in Congress that you couldn't mention the word slavery for decades. I mean, you could be thrown off of the floor for introducing a bill about slavery or mentioning it in debate. And there are people who don't like to talk about wars. There are people today, I've got colleagues who are lying about Vladimir Putin and his filthy bloody war of atrocities against the Ukrainian people. So there's a lot of lying. There's a lot of propaganda. There's a lot of disinformation; that too turns people off. And I just tell people two things when they say that they're burned out or it's too overwhelming. And I say one, that you're not on a solo journey here. We're all in this together. And so if you're feeling burned out and you need to take the weekend off, then take the weekend off and other people will stand in your place in the climate movement, in the movement to defend democracy. And then, when somebody else gets tired for the weekend. You'll be there for them. So it's a collective enterprise we're in, but the other thing is never forget that Vladimir Putin and Donald Trump and Steve Bannon and Cambridge Analytica set out in the 2016 election to depress the hell out of everybody and to demoralize everyone because at the same time that they were trying to depress demoralize young people, they were out looking for people who fit what they called the devil's triad of psychopathy, narcissism, and Machiavellianism. In case that psychological profile sounds familiar to you, that basically was the sector of society that was empowered and uplifted during the Trump administration.

**Greg Dalton:** Yeah. They've weaponized behavioral science with those technological tools. So my last question for you, congressmen, is with a burning democracy and a burning climate. How do you as a person and we as a country hold and confront both emergencies in an integrated way?

**Jamie Raskin:** Well, with a burning passion to defend our country and to defend the survival of our species. And I don't think that's hyperbole. I mean, if we had bigger brains, if we were smarter, as an animal, humans would be working on nothing other than climate change at this point, but because of the, the Trumpist movement and the authoritarian thug, Vladimir Putin, and all of their allies around the world we're dragged back into a basic struggle between constitutional democracy and human rights versus authoritarianism. And so the democratic governments and movements have got to win that struggle and move on to make the profound policy changes we need in order to defeat climate change next.

**Ariana Brocious:** And we should be asking How do we save our democracy? While the November elections went relatively smoothly, the country seems more divided than ever.

**Greg Dalton:** We certainly are. And new polling from the Pew Research Center shows how the United States is more polarized than other industrialized democracies. Confronting the climate crisis

requires long-term commitment and in the political realm that means support from both parties. Anand Giridharadas is a journalist, political analyst, and author. His latest book, "The Persuaders: At the Front Lines of the Fight for Hearts, Minds, and Democracy," explores how the tactics of persuasion can help strengthen democracy and foster positive societal change. I talked to him about the rare people who can simultaneously stand for something and not put other people off.

**Anand Giridharadas:** This is not a book about how can we all get along better ,how can we heal. It is a book about how do we save the country from very real threats. Whether it's climate internal fracturing democratic decay, disgusting wealth inequality that has you know, made the American dream, something that only exists outside of the United States and so forth. But what I'm interested in is how do we grow the support for those ideas and not write people off preemptively as being un-addressable, uninterested, stuck in their ways never going to come around. How do we actually champion ideas like universal healthcare, or ideas like everyone voting and having those votes protected or ideas close to your heart around how do we defend the planet from the threat of it being uninhabitable. How do we do those things in a way that is through joyful, magnanimous, fiery movements. Movements that don't just feel dour, right. And we should talk in climate in particular, I think there's been this problem of movements that are better at being right than they are at being sticky. The biggest problem with regard to climate on this topic of persuasion is the movement has been right on the facts right on the warnings right on what needs to be done. Right on the urgency, right on the shaming of politicians. Right, right, right, right, right. I think somewhere down the line, no one got the memo to make sure that we are building a movement that is more fun, more life-giving, more purpose giving, more educative, more welcoming to be part of. And what I want is for more of the righteous causes in this country and around the world to think about are we reaching people? Are we connecting to people emotionally and psychologically? Are we building that bigger we or are we just simply too complacent in the fact that our facts and our policies are correct?

**Greg Dalton:** I think that happens in climate a lot where if you're not vegan and solar you are kind of looked down upon. There's this sort of, you know, purity test in climate world like that sort of judges people about their greenness. And people can sense that and it can be off-putting.

**Anand Giridharadas:** Totally. It's such a good example because it gets to this confusion that I think a lot of the persuaders that I write about in the book were so smart about. Alicia Garza, one of the leaders of Black Lives Matter talks about this. She says, you know, I think, I'm paraphrasing here, but she told me I think sometimes in our movements we feel like if there's a lot of non-radical people in our radical spaces there is something wrong with our radical spaces our radical spaces is failing. And she was kind of like what I'm here to say is if there's non-radical people in your radical space that's when your movement is succeeding, right.

**Greg Dalton:** You're growing and recruiting.

**Anand Giridharadas:** Correct. And you're now reaching people who don't share all the ideals, but they still want to be in there anyway. So, if you got meat-eaters in your climate movement, that means your movement is now reaching people who don't share all your convictions who don't share everything but they still like something about what you're saying. You probably even alienated them sometimes with some your vegan stuff, but they're still there. Why are they there? That's interesting. Why are they showing up? You have created something in them that they still want to be there in spite of the barrier. Hallelujah! Congratulations, now you got a movement.

**Greg Dalton:** Welcome. She also says, Alicia Garza, also says that you quote her saying, "The right deeply understands people. The left gets hung up on facts and figures in trying to change people's minds." So, I was curious about there about how you can welcome someone while also still being a persuader.

**Anand Giridharadas:** I think there's broadly two approaches in politics you see right now along the lines of what she's describing. What I think predominates on the left is you start with the wares that you're trying to sell. I'm trying to sell you climate legislation. I'm trying to sell you democracy legislation. I'm trying to sell you advanced manufacturing legislation. I'm trying to sell you infrastructure legislation. And you, the voter, may be standing over there being like I'm really concerned about rising prices. I feel my neighborhood is unsafe. And I feel like the broad approach of the left is like, no, no, no, no, no, you're over blowing this inflation, it's fine, it's just the war in Ukraine. Like you're overblowing the inflation. This crime thing is not real, the stats if you actually run the regression another way it's not actually more unsafe what you're feeling is not real, right. And people like, I don't know, I saw two people got shot outside of my street. I kind of don't like that. And it's like, no, no, no, no. If you actually compare it year on year adjusted for population growth, you're totally safe.

**Greg Dalton:** We've got white papers that say, da, da, da.

**Anand Giridharadas:** We got so many white papers. And like, you know, inflation like and my family can't afford anything anymore. Yeah, but like it's Putin that's like Putin did that, you know. And then by the way we got these trucks delivering some wares. Would you like to reorganize the entire economy to fight climate change? Like really concerned about like inflation and crime? Climate is so important like that's actually the issue that matters right now. And, you know, what about infrastructure, I'd love to build some infrastructure like. Yeah, I can't afford my house like, yeah, but we need infra, you know. And it's not that these policies are not the right policies because as you know they actually do address a lot of these issues. And they do save you money in different ways and they do create jobs that will help you afford your house, right. But I just feel like very broadly speaking, the posture of the left is like, yeah, yeah, yeah, I know you feel that stuff is important. But let me explain to you why in fact, this other stuff is more important or is like is like primary like if you don't care what stuff we care about the stuff you're worried about like it won't happen that's often the argument. Okay. Now, pivot to the right. The right starts with what's going on with you? What's happening with you, Greg, what are you anxious about? What are you afraid about? What have you noticed in your town recently that made you go, huh? that's new. What did your kids come home and say to you about what they learned in school that made you feel a little bit destabilized because you didn't learn that thing in school and that seems maybe a little weird what they learned or off-putting. What trainings have you been going to at work, Greg, that made you feel like I don't know I feel kind of awkward in those trainings or I feel attacked in those trainings. The right is starting with you.

**Ariana Brocious:** Anand's framing is really fascinating. But his characterization of the difference between left and right seems a bit too simple.

**Greg Dalton:** True. I've talked to many on the right who are all about pushing their policies and many on the left who do start with relationship building. Still, his framework really resonates with me and a lot of people I've talked to.

**Ariana Brocious:** One democrat who embodies the personal approach is Chloe Maxmin. She is the youngest woman ever to serve in the Maine State Senate, a seat she won in 2020 - unseating a two-term Republican incumbent. She and her campaign manager co-wrote "Dirt Road Revival", a book detailing their approach to a strategy called deep canvassing. Let's listen back to a little of that interview.

**Greg Dalton:** In your book *Dirt Road Revival*, you write "Things move at the speed of relationships in rural America, you don't jump straight into business and take care of things as quickly as possible." How were you able to use that idea in your campaigning?

**Chloe Maxmin:** To us it really felt quite simple, you know, when we were having these conversations with folks many of whom had never been contacted by a Democratic campaign or canvasser in their entire voting history. We didn't show up and say, hey, this is Chloe this is who she is are you gonna vote for her yes or no? Do you know where your polling place is, yes or no? We didn't bring a traditional campaign script into the situation. What we did was we showed up and we said hey, you know, we're from Chloe's campaigner, you know, I'm Chloe, just stopping by to see what's on your mind and how we can best represent what's going on in your life. So, it was really about building relationships with folks. I always think of it as just like making a friend 101 you don't show up, especially on someone's doorstep on their porch and their kitchen and say hey, you want to argue about abortion with me. You show up and you say hey, I'd love to get to know you, find out where our common ground is and let's see if we can build a relationship from there.

**Greg Dalton:** How do you handle conversations with conservatives when they express opinions that are antithetical to your own beliefs or even offensive?

**Chloe Maxmin:** I think I found a lot of space in myself to have conversations with people where we can agree to disagree and we can have very civil, kind, insightful conversations, even if we're coming out on opposite sides. And I think that's a really lost art that's so important for maintaining some sense of empathy in our political environment when that's becoming very, very difficult. And of course, sometimes people say things that I don't agree with or that I find offensive. And I found my own way to kind of talk back to that, ask questions about it, understand where it's coming from so it's not something that completely ends the conversation. I've heard so many people say that they just kind of expect liberals and Democrats to yell at them and to school them on what's right and wrong when it comes to certain issues. My approach is not to argue with anyone, not to try to persuade anyone but just trying to listen and understand what I'm hearing.

**Greg Dalton:** And people use different language. I'm curious how you chose your words and if you used words to reflect back to people that, I'm using your word or at least, which shows, kind of I understand you where I'm not using that other word that those other people use.

**Chloe Maxmin:** I mean one of the biggest epiphanies that I had while doing this work is that so much of the time we completely align on values, but there are buzzwords or policies or just other things that are really divisive and prevent the conversation from happening. So, really being able to focus on that deeper level of values was almost always there was space for a conversation there, even if there wasn't agreement. And I think that was so important, you know, it's about translating this work into a rural conservative context and it makes sense. We don't use the same language wherever we go. People don't communicate the same way in every state or in every community. And so, it also doesn't make sense that we would have like a one-size-fits-all approach to campaigning or talking about the Green New Deal or Medicare for all or you know lowering student debt. Those conversations require a different dialect in rural communities like mine.

**Greg Dalton:** This is Climate One. I'm Greg Dalton. And today I'm joined by our producer Ariana Brocious as we review the top climate stories of 2022.

**Ariana Brocious:** It's pretty hard to capture everything we've talked about over the course of the year. We've explored politics, science, coping with climate anxiety through music, and we talked about solutions - how we decarbonize cement, steel, and aviation, and how we can start removing CO2 from the atmosphere. If you want to find those episodes, we encourage you to subscribe to our podcast or look back through our past episodes on [climateone.org](https://climateone.org) - but at the heart of everything we talk about is the people.

**Greg Dalton:** Yeah, that was never more apparent to me than when I was at COP27 - the UN



climate convention in Egypt. One of the main topics was how the countries that have caused most of the climate chaos should compensate the countries that are suffering first and worst. COP27 did result in the creation of a fund for loss and damage payments, which is a big step forward. But David Munene, programs manager with Catholic Youth Network for Environmental Sustainability in Africa, really schooled me on how the money - while important - is far from sufficient.

**David Munene:** Before we get to the quantifiable aspects of loss and damage, for me, loss and damage is a Kenyan means loss of heritage. It means loss of culture. It means loss of spiritual values, for example, shrines and trees that we consider to be important to our cultures, our spirituality, and our way of life. It is the loss of connectivity, connectedness with our land. It implies the loss of lives and productivity of the lands to which we are connected from birth, we work on it, and to death, we return to the same land. When it comes to the hope this, the theft, loss and damage steals away from us the hope that tomorrow is assured and it's going to be there, it's going to be better. It also means that I carry with me a lot of anger because I've seen things that have grown around with disappear because of loss and damage. It means I've lost my sanity if you'd like, to an extent, because now I have to deal with things I don't understand that I did not really contribute to it. My forefathers didn't contribute as largely to it, and it's more than commerce and brackets in texts at COP 27.

**Greg Dalton:** And as you come here to Cop 27 and encounter people, there's a lot of people here in dark suits from wealthy countries. Does that anger come up for you when you meet people on an individual level?

**David Munene:** Sometimes it's a mix of anger, devastation and pity, because I pity that people would be comfortable on the 14th floor when the ground floor is caving in. I pity them because they don't seem to want to look down where their high horse is going to crumble into. Because if, for example, Africa collapses, we are the lungs together with the Amazon, the lungs of the world, and we are crumbling together because of this. When someone is comfortable because they can live and another is dying, I pity them sometimes, but I'm also angry that the conversations they hold seem to consider some of us as children of a lesser god. It's as if we are having a conversation about two different kinds of human families instead of one. If someone is losing their culture, their heritage, they are losing their connectedness with their ancestors, they are losing the hope for tomorrow. I would be deeply concerned.

**Greg Dalton:** Yeah, many people in wealthy industrialized countries don't have those connections with place or ancestors. We've already lost that, and I'm feeling guilt as I'm hearing this. It's quite moving to hear you say this. I mean, as an American, my carbon emissions have hurt you and your country. I know. That was not my intention. But if it's meaningful to say I'm sorry, or like, I don't know what to do with that.

**David Munene:** I wish the opening of the inclusion of the agenda on loss and damage in this COP 27 didn't come with that disturbing tagline of, 'compensation is not admission of liability.' Because if I killed your dog, and decided to pay you without saying I'm sorry, or I contributed to the death of your dog. And I didn't say, I'm sorry, but I paid you. How would that feel to you?

**Greg Dalton:** It would feel inadequate. So are you saying that money's important for loss and damage and-

**David Munene:** Yes.

**Greg Dalton:** Words and feelings and intention and apology are also desired and needed.

**David Munene:** I think they are more important, especially to their indigenous communities.

**Greg Dalton:** Apology is more important than money, wow.

**David Munene:** I think, because when that money comes now, it'll be backed up by good intention. Right now it'll be money because either A, we can afford it, or two, we want to just forget about what we have done, bury this under the carpet. However, I understand that introducing the conversation about qualifying loss and damage would even derail the small steps that we have already made to include issues of now finance. So I'm not saying that we should stop talking about finance for loss and damage. I'm just saying this should not be the end.

**Ariana Brocious:** "I pity that people would be comfortable on the 14th floor when the ground floor is caving in." That line has resonated with me so much after hearing this conversation. How do you feel Greg, listening back to it a couple months later?

**Greg Dalton:** I got chills listening to that a month later. That interview changed me, standing there, looking deep into his eyes on the continent of Africa. I sobbed afterwards, after that interview. And it's really, really powerful. "Children of a lesser god." We know what we're doing, and we don't want to look at that. And his graciousness and forgiveness and his balance of rage and acceptance was really powerful.

**Ariana Brocious:** Yeah, you made a point in that interview about how most Americans have already lost that deep connection to ancestral land. That really resonated with me - and again in the interview we did with Samoan journalist Lagipoiva Cherelle Jackson. For those of us who have only been in a place for a generation or two, the loss of that connection is hard to fathom. It's so important for us to hear it.

**Greg Dalton:** I agree. Let's listen again to Lagipoiva Cherelle Jackson.

**Lagipoiva Cherelle Jackson:** In the birth story of a Samoan, first the afterbirth is buried on your land marking where you stay and this is your ancestral land. And then the umbilical cord of the baby once it drops off is also buried on the land, usually with a tree. And then when you die you will also be buried on that land and you'll often find in Samoa and in other Pacific Island countries that we sometimes bury our dead in our homes because the homes are open, you'll see like graves within the front porch of the house. Because we're still related, we're still very much a part of the family whether or not you died a hundred years ago 50 years ago or yesterday. Now where this becomes a climate story is that for atoll nations such as Marshall Islands, Kiribati, Tuvalu, Tokelau, when they are forced to leave because there will be no more land or it's fully submerged or it's no longer inhabitable. You cannot just up and leave a piece of land as you would say in the states, in the US where you're like okay, I'm in apartment here I own a home I can go buy a home somewhere else. No, this is something that your ancestors grew up in, you're born into this land, your children, your children's children are supposed to be on this land forever, irrespective of where you go in the world. For my children they will always have land in my home village. Our ancestral land that we will always go back to. Like infinity and beyond. Like it's always going to be there. So, to then say to a Pacific Islander this is no longer yours because the ocean has taken over. That's essentially saying cutting off it's almost saying you're cutting off the rest of their lineage. And lineage is very much a part of our upbringing. I've interviewed communities in Fiji where the whole villages were wiped out by Cyclone Winston in 2016. And they're like, yeah, we're gonna rebuild right here. When it comes to islands and you don't have any other choice of location you rebuild there because culturally that's where you are and where you will always be. It's almost in a sense it's not even a choice; you just stay.

**Ariana Brocious:** I mean what an impossible situation. She says, "It's not even a choice; you just stay." But how can you stay when your land is now underwater?

**Greg Dalton:** I don't know. It's indeed an impossible choice. It seems like unlucky geography is partly to blame. According to a recent IPCC report people in climate vulnerable countries are 15 times more at risk than those in developed countries. Bangladesh is 15 times more vulnerable than the Netherlands. But when I raised this question with Wanjira Mathai, Regional Director for Africa and Vice President at the World Resources Institute, she said the evidence doesn't support that conclusion. It's really about inequality.

**Wanjira Mathai:** Well, Greg, actually it is not geography because Bangladesh should not have as much damage as the Netherlands because the Netherlands is more exposed per capita to sea level rise. But we know that in Bangladesh given the same situation Bangladeshis will be 15 times more affected. So, it has nothing to do with geography, it has everything to do with prosperity. Because you build the sort of technologies, we know how brilliant the Netherlands are about protecting themselves from sea level rise. The sort of research technology that goes into protecting themselves. This is not the case for Bangladesh. And so, it is a difference in prosperity as well.

**Greg Dalton:** These developing countries are often characterized as climate victims. What do you think of that frame? You frame this as very much of a moral responsibility? But how about that frame of being victims?

**Wanjira Mathai:** I don't like this frame of victims because I think it sort of immobilizes people. I think the communities that are impacted by climate change are disproportionately impacted and they're doing everything they can. I think the image of the victim makes it look like they're sitting there waiting. They're not. People are working very hard to think about ways that they can protect their populations, protect their countries especially look at the island states, Marshall Islands and others. but they need the solidarity of the rest of the world because this is not a problem that they created. Absolutely they need that solidarity.

**Greg Dalton:** You say that the climate conversation is intellectual and it should shift to more of an emotional one. Talk about that, how people talk about climate kind of up in their head with lots of facts and charts and figures and should be more from a different heart-centered place.

**Wanjira Mathai:** Right. You know, and I do it too. I mean I know all the science I read it I'm charged by it. I feel like I'm motivated by a lot of these facts. But it just seems to be if you look at the very fundamental one that 80% of the G20 is responsible of global emissions. We are headed like a speed train in the wrong direction. We have eight years, maybe even seven to arrest catastrophic climate change. Think about that for a minute. We have to do it in the next seven years. It doesn't seem like we're in a hurry when you look out into the horizon and see how we are addressing issues of new oil wells or new drilling, especially in the countries whose carbon budgets just don't allow for them to go in that direction. And the science has gotten better, the science has gotten tighter. Why are we not moving with more urgency? That's the intellectual overcoming the emotional. Because apparently if we want more connected to the reality of that we would not be joking about it and we would be moving with more haste.

**Greg Dalton:** Right. So, what's happening on the positive side, because we tend as climate people often to look at the dark side, you know, the bad things are happening faster. The good things are happening slower. And yet, there are good things that are also happening fast.

**Wanjira Mathai:** But good things are not happening fast enough, and that's the difference. I think we need to unfortunately; we need to move faster. We've caused untold damage we've caused with the way we've developed. And I think we have to move fast but with justice to acknowledge that there are people who haven't been responsible for this and who must be lifted out of poverty. Because you cannot adapt to climate change when you're at the certain level of poverty. When

you're on the cliff you're on the cliff even if you have all the best dikes. It's literally an issue of prosperity as well. And that's why the development agenda for vulnerable countries is so important. The poorest of the poor cannot be allowed to continue, you can't adapt against that. That's just impossible.

**Ariana Brocious:** Greg, you've been covering climate for 15 years now. And I hear in your questions a great desire to hear some good news.

**Greg Dalton:** Well of course. I hear UN Secretary General Antonio Guterres speaking at COP 27, and it's kind of a downer, even when he refers to AC/DC:

**Antonio Guterres:** We are in the fight of our lives and we are losing. Greenhouse gas emissions keep growing, global temperatures keep rising, and our planet is fast approaching tipping points that will make climate chaos irreversible. We are on a highway to climate hell with our foot still on the accelerator.

**Greg Dalton:** And there is good news - even if the good news is that things aren't as bad as we thought it would be.

**Ariana Brocious:** Right. Here's what David Wallace-Wells, author of "The Uninhabitable Earth" told you earlier this year:

**David Wallace-Wells:** I have a somewhat less alarmist view of the science of climate change than I did a few years ago. I think that some of the worst-case scenarios now seem, if not impossible then considerably less likely than they did when I wrote the article in 2017 and the book which came out at only 2019. Now, I think where we're headed and even our best-case scenarios involve a lot of climate suffering. And so, we shouldn't tell ourselves that this is a happy story, exactly, but it is a relatively happy story of some of the truly most unimaginable horrors are looking less likely. (:30)

**Ariana Brocious:** So are you celebrating that?

**Greg Dalton:** Well, I'd like to...I mean, it is true that emissions are still going up, but according to Gavin McCormick, founding member of the global emissions tracker Climate TRACE, the fact that they are not going up as fast as predicted is cause for celebration. I asked Gavin how looking at the global data has affected his own personal hopes and fears for our shared climate future.

**Gavin McCormick:** It's pretty stunning for an environmental activist to say that they're calming down. But I have just been stunned by how much good news I see in the data.

**Greg Dalton:** Can you say that again please?

**Gavin McCormick:** Yeah. I have been stunned by how well we are doing as a species. Nobody talks about this part. So one of my favorite analyses, for example, is I looked at how much are countries emissions increasing each year. And what I'm seeing in the Climate TRACE data is that the rate of increase is shrinking so fast we are getting real close to flatlining here. And I'm seeing that it's happening in every industry and every country. We aren't seeing a story that some people had believed that it's only the global north reducing emissions or something like this. And I'm seeing really a large number of cases where there's a concrete, simple action you could take that would reduce a lot of emissions without anybody having to lose their fortune or anything like that. And I'm becoming much more hopeful that we have underestimated how easy it is to make progress on climate change.

**Ariana Brocious:** So Greg, what was your reaction when you heard that?

**Greg Dalton:** I wanted him to say it again. I want to replay it on a loop to give everyone a little pick-me-up. The Climate TRACE data he's talking about looks at the largest 72,000 individual sources of emissions on the planet. And one fact that really stood out to me was that 1% of facilities emit 14% of global emissions. That kind of transparency can provide levers for accelerated progress. And you, Ariana, what's your reaction?

**Ariana Brocious:** Well, I also want to believe we're making progress. As several of our guests told us this year good things are happening - just not fast enough. So both things are true. We need to celebrate the successes and keep up the pressure for even more.

**Greg Dalton:** I think that 's the key - to look at the light and the darkness and to balance them both and to go forward holding both of those things. On this Climate One, we've been talking about the year in climate. Climate One's empowering conversations connect all aspects of the climate emergency. There were so many good episodes from 2022 we couldn't review here. You can find all of our shows on our podcast feed or at [climate one dot org](https://climateone.org). Climate One's empowering conversations connect all aspects of the climate emergency. To hear more, subscribe to our podcast or wherever you get your pods. Talking about climate can be hard-- but it's critical to address the transitions we need to make in all parts of society. Please help us get people talking more about climate by giving us a rating or review. You can do it right now on your device. You can also help by sending a link to this episode to a friend. By sharing you can help people have their own deeper climate conversations.

Brad Marshland is our senior producer; Our managing director is Jenny Park. Our producers and audio editors are Ariana Brocious and Austin Colón. Megan Bisciegli is our production manager. Our team also includes consulting producer Sara-Katherine Coxon. Our theme music was composed by George Young (and arranged by Matt Willcox). Gloria Duffy is CEO of The Commonwealth Club of California, the nonprofit and nonpartisan forum where our program originates. I'm Greg Dalton.