Environmental Peacebuilders Working in the Midst of War

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Ariana Brocious: Before we get into today's show – which is not about Bill Gates – Kousha, I want to ask you about Bill Gates.

Kousha Navidar: Wonderful. I was hoping you'd ask.

Ariana Brocious: Wonderful. Yeah. So he wrote this lengthy memo, recently and stirred up a lot of discussion in the climate community. Did you read this memo?

Kousha Navidar: I did Ariana and it is lengthy and it is provocative and I think intentionally. Gates put out this memo and it's right before COP 30, which is the the UN Climate Conference that happens every year. And it's getting underway right now in Brazil. And I think he wrote it to kind of stir up, to borrow your phrase, world leaders to rethink the way that they're spending money. So for listeners who haven't read it, maybe Ariana, could you just kick us off with a little overview of what's in the memo?

Ariana Brocious: Sure. So Gates makes three main points, first. Climate change is serious, but we've made great progress. We need to keep backing breakthroughs that will help the world reach zero emissions. Two, we can't cut funding for health and development programs that help people be resilient to do that and to to cut emissions. And three, that we basically have to put human welfare at the center of our climate strategies. There's one quote I think really gives a frame to the whole memo.

Kousha Navidar: Is it the doomsday quote?

Ariana Brocious: Yes, it's basically this, "the doomsday outlook is causing much of the climate

community to focus too much on near term emission goals, and it's diverting resources from the most effective things we should be doing to improve life in a warming world." And you know, when he's saying the most effective things, a lot of the things he's talking about are things that the Gates Foundation funds, like eradicating poverty, addressing disease in poor countries and so on.

Kousha Navidar: Exactly, and I'm, I'm so happy you brought up that quote because that phrase like, focusing too much. Oh my. I can hear the blog posts being click clacked already on the keyboard, right? let me give you an example. I read in the New York Times that Princeton professor Michael Oppenheimer said that Gates was setting up a, false dichotomy usually propagated by climate skeptics that pits efforts to tackle climate change against foreign aid for the poor. Oppenheimer also warned that Gates's words are bound to be misused by those who would like nothing more than to destroy efforts to deal with climate change. And so for me, you know, when I was reading this, I thought, what is the intent behind this? And what is the risk? Because the intent. I believe is to force folks who care about the climate to think holistically about the metrics we use to measure progress. But what is the opportunity cost of putting out a memo like this? Right now, you and I are debating about how climate skeptics are going to co-opt it.

Ariana Brocious: Yeah, and really well said on the opportunity cost because it is important. I do agree with the idea that we shouldn't just throw money blindly at anything labeled climate. I think we should be skeptical and deliberate and focused in what we put our money towards when it comes to addressing climate. I also share the concern that some of this language is gonna be taken as more fodder for those who don't wanna make climate progress, um, or who think we're exaggerating the problem. And this also reminds me of a conversation we had really recently on the show, which is about the idea of adaptation, right? Whether we should be focusing our efforts there as opposed to mitigation, strictly reducing emissions and warming. and my perspective is the same on both. It is both, and it can and should be. We need them both now and in the future.

Kousha Navidar: I feel you, if you asked me, there is on the margins choices that need to be made because money is finite. And I know it's ironic that Bill Gates is one of the richest people in the world and now he is saying money is finite. Put that aside for a second. There is a point at which we need to think about how we are going to save lives now. And a part of the article that gave me pause, is this idea that he's. Really talking about programs that the Gates Foundation focuses on. And I mean, just last March, Gates came out and said, Hey Trump, if you're gonna keep making cuts to international aid, the Gates Foundation and the work that we do won't be able to cover that gap. And so now it's no surprise that Gates is coming up and saying, Hey folks, international leaders, we need to focus on the things that the Gates Foundation does

Ariana Brocious: We need more money

Kousha Navidar: Exactly. Thank you. Yeah, we need more money. Every expert that I've talked to has said climate crisis is an existential crisis. So the problem is, the climate crisis is a threat multiplier. So Gates wants to deal with poverty and disease and starvation. That's great, but at the same time, you can't ignore that if you don't reign in emissions now, then that poverty, that disease, that starvation, all of which are gonna be exacerbated by climate change, will get worse.

Ariana Brocious: Yes, and current suffering won't go away. If we don't address it, it will get worse. And so I do hear the argument for spending money now to address these things, especially if it can make people and communities who are already facing climate threats to be more resilient in the future. However, I also find his take pretty techno optimistic,

Kousha Navidar: I feel like I knew you were gonna say it was gonna be techno optimistic.

Ariana Brocious: I mean, not surprising, it's Bill Gates, right? He references a lot of technologies that, you know, some are active or in use today, but a lot of which are not scaling now. And the timeline he gives for when these things are possible is, is fairly vague. You know, he has this paragraph saying something to the effect. All countries will be able to construct buildings with low carbon cement and steel power grids will deliver clean electricity reliably. I mean, those things are not happening now. Green steel is still pretty expensive and not widely used. He also talks about what I consider to be even farther flung, uh, technologies like geological, hydrogen and carbon capture. We've talked about on the show how these aren't really gonna save human's bacon.

Kousha Navidar: There was one point he made that I did feel was my version of Techno Optimist, which is that farmers today in poor areas will have access to data that is even better than what the richest farmers today have access to in the near future. Uh, frankly, I could see that happening with the advances in ai. At the same time, I hate to be like a suspicious Sam, but. You can't ignore that. The Gates Foundation, its largest holding is in Microsoft. And Microsoft and OpenAI are together in business dealings. And I wanted to ask you, Ariana, did that give you pause in any way?

Ariana Brocious: Yeah, I mean, I'm suspicious of AI and its energy demands. I also recognize that there are a lot of applications for AI in the climate crisis that could. Do a lot to offset some of those concerns around energy use, et cetera, et cetera. I mean, the case that you cited of small holder farmers getting to have excellent forecasting and, farming data at their fingertips from their cell phone, that's, that's great. That's a good use to my mind. You know, that's gonna help people save their crops and feed their families. There are other more nefarious uses of AI and, the energy concerns are enormous. So yeah.

Kousha Navidar: Yeah, no, I feel you. I, I, I'm the same way.it's like nothing is cut and dry. And, you know, it reminds me of the fact that he's asking us to question our presuppositions about how we're spending money, and if there are climate initiatives that aren't working and are there climate initiatives that aren't working? Probably, and it's important not to have one metric, which is 1.5 degrees Celsius is bad, and we have to do anything we can to stop that. We should do anything we can to stop that, but it's not the only thing to worry about because there are people that are living right now that we also need to hold in our hearts. And I mean, I didn't agree with everything I read in this memo. But one more piece that I feel like was important to talk about was the green premium.

Ariana Brocious: Yeah. And this is a great place to wrap up our thoughts on the Gates memo. The green premium for those who don't know, is essentially the cost differential between conventional technologies. Um, often fossil fuel driven and green or renewable ones, you know. So, um, an example would be green steel, right? Costs a lot more. It is difficult right now to make steel without carbon emissions, but it is possible.

Kousha Navidar: Yeah, and on the other hand you could take an example like solar power, which for instance generally has a zero green premium because it's more affordable to use solar power now than fossil fuels. And so another thing that Gates is asking for, especially on the eve of COP, is that instead of just going on the stand as the leader of a country and saying, Hey, here's how we're doing on emissions. Gates is saying that we should also be talking about the different sectors that are contributing the most to warming and climate change, like agriculture, energy production, and, and to frame the conversation in the way of how those countries are doing at making that green premium going to zero, and how different countries can collaborate together specifically to make it to go to zero. And I thought that was really valuable.

Ariana Brocious: We would really love to know what you, our listeners, think. If you've read this memo or if you read it and you have thoughts, you can send them to ariana@climateone.org or

kousha@climateone.org, and, uh, we'll share them perhaps in a future episode. For now, let's get on with the show.

Ariana Brocious: I'm Ariana Brocious.

Kousha Navidar: I'm Kousha Navidar.

Ariana Brocious: And this is Climate One.

[music change]

Kousha Navidar: This week, we're talking about War and Peace. No, not the Tolstoy novel–I prefer my books to be under 1400 pages. But the topic of war and peace – which is at least as hefty.

Ariana Brocious: Yeah. The relationship between climate disruption and conflict are well-established – and also complicated. There are literally a thousand studies looking at the connections. In one – just as an example – researchers argue that a one-degree Celsius rise in temperature results in a four and half percent rise in civil wars.

Kousha Navidar: That statistic is so unnerving .. And also when I hear something like that I want to challenge it for a second. Just for the sake of the argument. Ariana, you live in Arizona. It's hot there, and getting hotter. Any civil wars going on?

Ariana Brocious: Well, no. People absolutely fight over increasingly scarce water. But those fights are mostly civil, and for now, mostly take place in conference halls or courtrooms, not out in the streets.

Kousha Navidar: Okay. So why does climate change fuel conflict in some places and not others?

Ariana Brocious: That is part of what we'll be exploring in this episode. The example that many experts bring up of environmental stress contributing to war is Syria. A severe drought from 2006 to 2011 devastated crops. That led to mass migration – hundreds of thousands of people moving from farms to cities, where there weren't enough jobs and resources for everyone. That exacerbated pre-existing social and economic tensions, which then turned into a full-blown civil war.

Kousha Navidar: But as you may know, Syria is right next door to Jordan, which has been relatively stable. Very interesting juxtaposition

Ariana Brocious: True. And then there's the Sahel, a region in Northern Africa that's seen rising temperatures and a whiplash of droughts and floods.

Kousha Navidar: Yeah, I'm looking at a map of the Sahel right now.

Ariana Brocious: You are not.

Kousha Navidar: I am. But only because our senior producer told me to.

Ariana Brocious: And what do you see?

Kousha Navidar: I see a band of countries – Burkina Faso, Mali, Niger, Chad, Sudan – stretching west to east across the African continent just below the Sahara. In the last couple of years, every one of these countries has either had a jihadist coup or a civil war.

Ariana Brocious: Or both.

Kousha Navidar: Or both. AND I'd argue that there are counter examples of countries that are climate-stressed and NOT at each other's throats. We'll get into why that is with our first guest.

Ariana Brocious: Then later in the show, we'll talk with a Palestinian and an Israeli, who are working together on environmental peacebuilding in one of the most fraught and fought-over parts of the world.

Kousha Navidar: I'm looking forward to that conversation… What's environmental peacebuilding?

Ariana Brocious: Ah, you'll have to stick around to find out.

Kousha Navidar: Classic podcast move.

Ariana Brocious: Well, I'll just say that crises don't always bring out the worst in humanity. Sometimes they bring out the best.

Kousha Navidar: Yeah, do you remember the "Cajun Navy"? Ordinary people going around New Orleans in boats in the aftermath of Hurricane Katrina, rescuing people from rooftops.

Ariana Brocious: Yeah, that's a wonderful example of people choosing how they respond to a horrible situation. And choosing to help each other, care for each other.

Kousha Navidar: Well said. So let's get into it. Let's unpack both the dark and the light.

Our first guest is Peter Schwartzstein. He's a climate security researcher, an environmental journalist, and author of "The Heat and the Fury: On the Frontlines of Climate Violence." His reporting has focused on literal and figurative hot spots across the world. He described how he first started to see the link between climate stress and violence in his work.

Peter Schwartzstein: It was very accidental. I came from a political science sort of academic background, and I made a start in journalism as a political correspondent in Egypt. and quite quickly felt that, that you could tell the story of a country like Egypt and perhaps the story of sort of most countries for that matter, better by looking at them through the prism of many of the environmental and climate struggles that they were experiencing than you could through a relatively superficial reading of their politics. But precisely because I had come from that sort of politics or political science background. I was forever looking to kind of marry up my new environment from climate beat with everything that I had previously known and everything that I'd previously worked on, like in the kind of more, uh, overtly political and security and conflict domain. And especially in the Middle East, I found that the closer I looked, the more linkages that there were. I mean, this is a region that as we know, is acutely vulnerable to environmental and climate stresses just on water issues alone, it's a region with about 6% of the world's population and about 1.5% of the world's fresh water resources. And that mismatch is just growing more jarring and more kind of badly out of whack with, with every passing year,

Kousha Navidar: So was it just by chance that you saw this link, or was it kind of, uh, unavoidable if you looked at conflict, climate was always right next door to that connection.

Peter Schwartzstein: I think it was thoroughly unavoidable. It was just that kind of, there were very few people for, for mostly good reasons, like looking to kind of explore that relationship. I mean we know that historically, kind of journalistic beats have been relatively siloed, sort of folks who covered conflict, covered conflict, people who looked at environment climate science sort of stayed

within what they saw as their lane. Um, and it was really quite rare. And again, for, for some understandable, safety related reasons, to have people who worked on climate and environment issues, um, working in what were some sort of touchy, complicated and occasionally dangerous parts of Iraq, Syria, Sudan, and, and parts of the Sahel.

Kousha Navidar: You know, Peter, that's a great point because, you know, for me, before I got into media, and I'm sure for a lot of listeners, you think about a conflict reporter or a war reporter, uh, there is a very classic archetype, and climate is not something that traditionally, you know, the, the movies that are made about war reporters don't include them talking about environmental, like emissions or things like that but they are very closely linked from your own experience and let, let's skip to today. Uh, you've argued that the amount of violence that is already connected to climate change is being vastly underestimated. Why do you think that is?

Peter Schwartzstein: So, I mean, there's, there's several parts to this, to this answer. The first one, which is I argue that we are not adequately taking into account how climate change is acting on other drivers of instability, kind of broadly recognized non climate drivers of instability like inequality, like corruption, like, uh, sort of poor governance of different stripes. And, I'll unpack that with an example. Um, so between about. 2014 and 2017, I spent, uh, probably at least half of that period in, uh, parts of Iraq and Syria that had recently been liberated from ISIS. And I was trying to kind of better understand how the Jihadi group had sort of benefited from collapsing agricultural conditions to bolster its ranks. And much to my surprise, after sort of several years of related work, I found that some of the areas that ISIS had enjoyed sort of the, the greatest sort of unfortunate results in enticing sort of young and middle-aged men into its ranks were the villages on the periphery of the city of Mosul in northern Iraq. And that was a really, really surprising development to me because those villages were by no means the poorest of the poor. Many of them had amenities like air conditioning or like refrigerators that much poorer, much more geographically peripheral communities could only dream of. But what they did have was this sort of proximity to the city, and hence a very strong awareness of the kind of growing gulf between their fortunes and the fortunes of the city people. Their fortunes were almost entirely dependent upon farming, which was deteriorating in line with the kind of increasing inhospitability of the conditions and the fortunes of, of the people in the city, which weren't exactly thriving, but which were for the most part, much less exposed to various climate stresses.

Kousha Navidar: Because they weren't farming clearly.

Peter Schwartzstein: Exactly. So you just have kind of a range of existing inequalities, which were aggravated by climate stresses, and that was kind of putty in the hands of these sort of rather brutally effective ISIS recruiters. One, one example to sort of just illustrate how inequality is tying in with climate change in so many scenarios to to, to kind of very unfortunate ends.

Kousha Navidar: You speak to a lot of people whose livelihoods depend directly on land and water. So you mentioned farmers, but also you talk to fishermen, you talk to sheep herders. What kind of stories have stayed with you that capture how environmental strain can can balloon into tension, like social, political tension.

Peter Schwartzstein: Yeah. I mean, well, it's absolutely no coincidence that in, I mean, most of the countries in which I've worked over the past decade and a bit, uh. It's the farmers. It's sort of the agrarian communities that are most acutely vulnerable to this. And that's because we know that sort of agriculture, along with associated professions like fishing and herding is, is just more vulnerable to climate stresses than, than almost any other, and, um, I mean, yeah, to, to give you, uh, another story to sort of flesh that out. Working in Burkina Faso and, and other parts of West Africa, I've met quite a lot of young men, like a, a, a guy called Mubakah who lived in a village that was several

hours drives that are out into the sort of quite arid scrub, um, uh, west of the, of the capital. And, uh, he was extremely quiet, sort of calm, sensitive guy, a guy who was sort of really quite temperamentally ill suited to sort of any form of, of military service, but. Kind of as the years went on and as kind of the, the farming livelihoods on which he and his immediate family had depended, sort of deteriorated as the rains worsened, more and more of those in his immediate orbit kind of found themselves either sort of forced or just enticed into the ranks of a bunch of different, uh, armed groups, either those loyal to the government or those loyal to some of the sort of jihadi or jihadi linked groups that are taking over large chunks of the sahel. And after what I think was the fifth failed harvest in six, he too felt that he had no choice but to seek, uh, a salary, um, with a kind of government aligned militia with a sort of terrible reputation for brutality. Um, and, uh, I mean, sure enough, um, he joined and, and I stayed in sort of relatively regular contact with him, uh, over the following year or two. And, um, then he went quiet, so to speak, and I made a bunch of inquiries and, and found that yeah, he had died in fights with sort of Al-Qaeda linked groups in the general area. And so that story along with just so many others that I've heard, on a, a few different continents, just illustrates how yeah, the increasing un viability of farming and, and so many other rural lifestyles is pushing people, in many instances by, by circumstance not by will or choice, um, into the ranks of a, a bunch of kind of nasty groups or groups that are not necessarily nasty, but in which they have no particular desire to place themselves.

Kousha Navidar: Wow. It's a powerful story to have experienced firsthand. You're talking about governments and we're jumping continents now, and it makes me think about how climate pressures exist basically everywhere at this point. And they don't exist in equal measure everywhere, but there are populations of people facing very tough challenges and tough choices like the one that you just brought up. But the, the, the violence isn't playing out equally everywhere either. And to bring it back to what you were saying, what role does government play in that? Like giving folks obviously, better options, better protection, helps out, but how much of this can be controlled by government intervention to kind of, not exacerbate the problem, but mitigate what's going on?

Peter Schwartzstein: It's almost all about governance. I mean, climate related violence is almost always a, the way that I, I frequently put it like an ugly marriage of climate stresses and poor quality governance. Um, and if you've got extra poor quality governance, it doesn't necessarily take even particularly severe climate stress to sort of push a community, an individual or, or even a kind of broader part of a country over the edge. We have quite a few instances in which extremely climate battered parts of the world have largely refrained from or avoided climate related violence, or at least avoided it on a large scale, even as places that are not quite as hard hit by kind of extreme heat, prolific drought or kind of a range of other extreme weather events tumble into associated forms of, of, of violence. But this goes both ways. I mean, a lot of the time it's not just a kind of a, a, a ruler or a series of rulers performing extremely poorly due to their own incompetence or corruption. There's a grim cyclical element to all of this, which is that climate change can also reduce a government's capacity to govern well, um, as we've seen. I mean, even in the US to, to, to, to sort of bring it a bit closer to home for a moment, uh, in the aftermath of Hurricane Helene in, uh, and around North Carolina last September, uh, FEMA's capacity to get emergency assistance to some of the hardest hit communities was much reduced by the very fact that a lot of the roads and bridges and other bits of infrastructure that they needed in order to get that assistance to people had also been washed away by the, by the torrents, by the floods. Um, so there's a, yeah, I mean, a kind of intractable looking component to a lot of this.

Kousha Navidar: Did I hear you correctly when you said that you have encountered examples where a harder hit country with fewer resources was able to respond better because they had better governance?

Peter Schwartzstein: Absolutely. I mean, so I'm currently based in Greece, but um, I'm quite close

to to, to moving to Jordan, probably a few weeks after this, this podcast goes out and, um, it's a country in which I've worked a lot over the years. and with the possible exception of Yemen and the possible exception of a few small Pacific and Caribbean island nations, there is no country in the world that is as battered by environmental and climate stress as Jordan is. And yet it has for the most part. I mean, we can, um, quibble about a bunch of things at a, at a local level. For the most part, it has avoided climate related violence on a large scale. Certainly relative to the troubles that have afflicted neighboring parts of Iraq and Syria. And a lot of that can be attributed to the relatively superior quality of governance that the Jordanian authorities have displayed. I mean, that's not to sort of say they've necessarily covered themselves in glory, but they've had enough sense for the most part when these farming dependent villages have protested, which they have on a relatively regular basis, not to shoot them with sort of live ammunition as so many of their peers over the borders have. I mean, it's a sort of low bar of success, but that in so many of these instances is the difference between a kind of anger over water spilling into a wider conflagration or anger over water remaining relatively low level and relatively self-contained.

Kousha Navidar: I wanna dive into that more because I find this appraisal of the government function when you tease out money, when you can tease out the, the climate impacts to be pretty fascinating. The example that you just used, what is it about that government that sets them up to respond more effectively?

Peter Schwartzstein: A number of scholars in, in my field who've sort of tried to dissect what makes a place more vulnerable to climate related violence. And there's three things that they've principally hit upon. One is having a large share of the population engaged in agriculture for all the reasons that we've already discussed. I mean, it just means that there's that bit more people who are vulnerable to climate stresses. The second is having a history of recent or ongoing conflict. Why is that relevant? Well, because if you've got a history of recent ongoing conflict, that means you've got tremendous existing distrust. You've got tremendous existing weaknesses or kind of cleavages across society, which climate stresses can just amplify or augment. And the third one is, um, kind of exclusive political systems, IE political systems that are perhaps that bit better at understanding and processing the sources of kind of local anger and processing and understanding it without just sort of crushing it in a brutally repressive manner. Um, the problem with authoritarian states, and the problem with countries that are just exhibiting poor levels of governance sort of across the board, is that they just don't have either the temperament or the capacity to respond to the kinds of tensions, the kinds of anger, the kinds of fury that so often arise out of climate stresses in a kind of peaceful manner. They respond. They respond with blunt violence for the most part. And when you respond with blunt violence, you make it much more likely that you are gonna be just launching sort of cycles of, of violence from which it's hard to extricate yourself.

Music: In

Kousha Navidar: We'll have more of my conversation with Peter Schwartzstein after the break. Plus, how some Palestinians and Israelis are building trust through cooperation over shared resources.

Fareed Mahameed: Trust is the most valuable asset that you could have working with community.

Kousha Navidar: That's up next, when Climate One continues.

Ariana Brocious FOR POD: Help others find our show by leaving us a review or rating. Thanks for your support!

Music: Out

Kousha Navidar: Let’s get back to my conversation with Climate Security Researcher Peter Schwartzstein. He’s reported on the connections between climate disruption and violence across the globe, And that raised a question for me, about bringing this all back home…

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Kousha Navidar: your reporting has spanned the Middle East, north, west, south Africa, Asia, Eastern Europe, uh, I live in the United States. How worried should I be?

Peter Schwartzstein: Well, I mean about climate. Uh, well, other things, uh, very, but, um, on a climate related violence part, more worried than one might imagine. Um, and that's because, I mean, to take a brief step back for a moment when, when I, and so many others in my field look at climate's contribution to violence, we mostly look at sort of poorer parts of the planet, and there is a pretty good reason for that. I mean, as, as discussed kind of climate related violence is this, this nasty mosaic, this nasty marriage of, of, of climate stresses and poor governance. And both of those in their kind of worst manifestations are generally found in less affluent pockets of the world. But as our own kind of conditions get that little bit less hospitable and to put it kindly or euphemistically as our own qualities of governance in much of the rich world also deteriorate, yeah, we too are starting to experience more, uh, intense manifestations of climate related violence. Now, some of this is relatively low level and localized. So based here in Greece, I've done a fair bit of work on the impact of drought, on, uh, theft of various cash crops like olive oil. So between 2023 and 2024, uh, drought, uh, across the Mediterranean, which produces almost all of the world's olive oil raised prices about 70 to 80%. And as a consequence of that huge surge in prices, uh, you had everybody from kind of opportunistic individuals to kind of really established criminal gangs who were all of a sudden incentivized to steal kind of branches of olives on trees through to kind of big trucks toting kind of million euros worth of, of olive oil to, to, to, to kind of distribution sites. And uh, so that was kind of a very low level illustration of, of how this can manifest itself. But on a larger, more distant, kind of more future scale, um, Americans and Europeans and perhaps plenty of people across East Asia and further field potentially have an awful lot of fear. And that's because climate change is contributing to, uh, increasing public unhappiness with, uh, state services and with state performance. I mean, a lot of citizens in wealthier parts of the world have pretty high expectations of state. They have a high expectation that state will provide quality infrastructure. They have a high expectation that state will provide quality services, like kind of solid freshwater provisions, solid wastewater disposal. And so when those services or kind of state capacities fail or fail even a little bit, then state then kind of popular unhappiness can really bound back, uh, in a variety of potentially worrisome forms. Like kind of people turning to more, um, hard line, more populist, more extremist political parties. 'cause they feel that the mainstream ones are simply not giving them what they expect. And we know that a lot of these kind of hard line or, or sort of peripheral or extremist parties will kinda rationalize those failures by sort of blaming a pretty familiar cast of, of scapegoats, um, as opposed to sort of dealing with the root cause of problems, which in many instances perhaps are, are not easily solvable. so no, this certainly, um, in, in the years or, or certainly the decades to come, um, is something that, that I fear will, will hit richer parts of the planet, uh, possibly even more severely than they're hitting, um, poor.

Kousha Navidar: Yeah. It's been so fascinating talking about this narrative, and yet I kind of wanna put you to the test in a little way right before we finish this interview, to challenge that narrative too. Like the narrative climate change means misery. I think that's something we hear about all the time. But it's also maybe opened new paths for dialogue and, and cooperation. And I'm not trying to end the interview here, just like on a good note to end on a good note. I'm, I'm generally interested, have you seen that narrative, that other flip side of the coin?

Peter Schwartzstein: Absolutely. No. I mean, I'll, I'll give you a bit of hope now after, uh, quite a few

Kousha Navidar: Oh, please. Thank you. Yeah, right.

Peter Schwartzstein: of misery and dispiriting you. I, I gave you an example previously of where kind of climate and environmental issues were sort of helping to, to pitch people apart. We've also seen how some of these sort of farmer and herder communities who've been, um, really, uh, at one another's throats in, in very literal terms, uh, for much of the past decade are actually coming together in so many instances. Uh, there were several occasions while working in parts of Mali and parts of Senegal and parts of Mauritania where I found these NGO implemented pastoral units that basically brought together representatives of pastoral and farming communities in order to enable them to sort of hash out which parts of land would be turned over to farming and farming alone, and which parts of land would be left for herders to graze their animals. There was a kind of dispute resolution mechanism by which farmers could turn for compensation if cattle straight into their farms and trampled their crops. And simultaneously there was a means for kind of herders to seek records to justice if farmers, uh, cultivated crops in areas that were meant to be, uh, transhuman corridors for the herders to sort of move their cattle from place A to place B. Um, but because trust between those communities had previously broken down, it required the kind of intervention of a an NGO from another part of their respective countries, in order for them to actually come together for the kind of cooperation that they all had kind of sought out but just couldn't sort of summon up through their, their kind of collective will.

Kousha Navidar: Yeah, it, like you said, it is, um, well maybe I'm, I'm making an inference here, but that the role that NGO in that case was kind of smoothing out the uncertainty curve of, uh, different aspects of those farmers' lives and providing security when, necessary, but so giving people a way to know what to expect

Peter Schwartzstein: Communities can get stuck in spirals of violence that very few among them actually want because so much of this is wrapped up with governance. Most, if not all, climate related violence remains within our capacity to quash. Not easily quashed, but like the die is not cast on any of this. And so when I kind of lay out climate related security risks, I think or hope that it will be interpreted as a, a taste of the kinds of violence that we will be kind of experiencing on a much grander scale, if we don't get our act together. it should not be perceived as a, a kind of harbinger of kind of imminent inevitable doom. Secondly, and this is something that I really find extremely, um, uh, kind of heartening, I mean, in the 12, 13 years in which I've been doing this kind of work across conflict climate settings in about four or five different countries. I've been quite stunned that there's not a lot more climate related violence than there actually is. Like particularly if you think about the sheer deprivation and, and sort of misery in so many instances, uh, of the conditions that people are up against. If you look at just the extraordinarily rapacious or predatory or poor quality governance that people must wrestle with, it's a measure of how much people, most people will go to avoid violence, certainly if they're granted the tools and the mechanisms to do so. And third, um, we have also seen how shared climate and environmental problems can, in certain circumstances, and kind of in the right hands, help to bring people together as opposed to just tearing them apart. Shared challenges can shared water, shared farming challenges can be sort of entry points or bridges for communities to come together In the face of that sort of shared, uh, challenge, it sounds quite kumbaya esque and yet certainly at a kind of community to community or sort of tribal to tribal level in parts of the African continent and further afield, we have seen how this can help to sort of build trust between communities that have sort of long since shattered it, how it can, sort of really be that, that kind of tool or issue around which people mobilize for their collective good.

Kousha Navidar: Peter Schwartzstein is a researcher, a journalist focused on climate security, an

author of the Heat and the Fury on the front lines of climate violence. Peter, thank you so much for your work and for sharing it with us.

Peter Schwartzstein: It's a pleasure to join.

Music: transition

Ariana Brocious: Nearly thirty years ago, the Arava Institute in Israel began as a program to study environmental science and explore ways to build peace in the Middle East. Today, the Institute brings together Israelis, Palestinians, Moroccans, and Jordanians to study and tackle shared environmental challenges. On the ground, Israeli and Palestinian partners are putting that work into action, installing projects in water management, renewable energy, and sustainable agriculture across one of the most tense and disputed regions in the world.

Liana Berlin-Fischler is the Associate Director for the Center for Applied Environmental Diplomacy at the Arava Institute. She's Jewish and grew up in the Washington DC area. She moved to Tel Aviv, Israel after doing a semester abroad there during her undergraduate studies.

Liana Berlin-Fischler: Clive Lipkin, who's one of our lecturers, brought me to the Arava Institute. His course was the first touch point for me for, um, meeting the inequities between Israelis and Palestinians from a water resource perspective, um, it was extremely important to me, um, if I am Jewish and feel connected to this land, to understand it from every perspective, not just the romantic view, not just the connected view, but even see the fragments of it and, um, be able to hold all of it, which is a lot of what this work demands. Being able to hold more than one story, more than one perspective. And I felt very, very called to, uh, begin tackling these challenges.

Ariana Brocious: Fareed Mahameed grew up in Umm al-Fahm, an Arab Palestinian city inside of Israel. He also works at the Arava Institute – as the Assistant Director of the Center for Transboundary Water Management.

Fareed Mahameed: I call it like climate justice, in a way for me this is like as Palestinian, my tikkun olam.

Ariana Brocious: Tikkun olam: Hebrew for “repairing the world.”

Fareed Mahameed: So in Jewish tikkun olam literally means like you should fix the world. Like it sounds strange now as a Palestinian say, but I really take it from, as a universal value. Like this is my tikkun olam not only for my communities, for the situation, try to bring, you know, what we can do. I'm not, I'm not promising peace, unfortunately. I don't have the power to in the occupation. I'm trying to do my best to help communities to optimize their agricultural methods, to help them where we can with off grid, you know, technologies.

Ariana Brocious: Mahameed works mostly in the West Bank. Before I could really understand how his work fits into peacebuilding, I felt like I first had to wrap my head around the history and geography of the region. How the land is divided is a little complicated, with borders shifting over decades and continuing to be disputed today. Israel is pretty small; it’s about the size and shape of New Jersey. On the western edge, there’s Gaza, a narrow strip of land where roughly two million Palestinians live. Then there’s the West Bank, which is actually on the east side of Israel, but on the West Bank of the Jordan River. It’s a much larger area. And it’s home to around three million Palestinians.

Israel took control of both Gaza, the West Bank, and other parts of the region in 1967. Today, Israel maintains military control over much of the West Bank, Since then, 700,000 Jewish Israelis have

settled in the West Bank and East Jerusalem — in settlements considered illegal by most of the international community.

So now, back to Mahameed's work. He focuses on supporting Israel's Arab Bedouin citizens, who are indigenous to the Negev Desert in southern Israel. He also works with Palestinian communities and farmers in the West Bank and Jordan Valley.

Fareed Mahameed: life in the Jordan Valley is very difficult. It's very, it's very hot climate. It's, uh, also one of the few that actually we call it, uh, sometimes like a tropical, because it's very hot and it's also very humid. So the communities there are very, are very, um, simple peasant we call communities. They live mostly in off grid, you know, villages. They are like a clan based, family based community. Most of them also like, uh, are only beginning to, you know, to send their kids to academics because of like the means, And also there's no like, uh, infrastructure and transportation. So like socioeconomic status is, is like, uh, difficult for them. But I call them like, they're like, they're what's, uh, left of like the true Palestinians, you know, before the Nakba and the organization occupation. Like I call them the guardian of the land. They're keeping like the Palestinian spirit of agriculture, of community alive.

Ariana Brocious: The Nakba means "catastrophe" in Arabic and refers to the mass displacement and dispossession of Palestinians during the 1948 Arab-Israeli War. Most Palestinian cities and towns in the West Bank are not fully connected to the Israeli water grid and for Palestinians living in the Israeli-occupied West Bank, access to water has been a struggle for years. Since October 7th, 2023, violence in the area has ramped up, and water has been even more difficult to access.

Fareed Mahameed: This is also like what amaze me, especially nowadays, uh, everybody speak about ceasefire and Trump speak about, he stopped Israel from annexing the West Bank, which he doesn't need. Israel already annexed the West Bank. De facto today the annexation, the West Bank is on steroids, like, uh, the ethnic, you know, there's ethnic cleansing. And actually now I just got a message from a settler who's, you know, just like a, um, you know, saying, look what we did just last month. We burned this village, we attacked this community just like in, in the open. You know, and this is why in situation now in the West Bank, although it's not as severe as in Gaza, it's nonetheless, it's very severe in comparison, Morich, who was a settler, who's the minister of, uh, finance and also Ben Veer, who's also a settler as a minister of the national security, are trying before the next election to grab as much land as possible to prevent a Palestinian state. They only can do it if they can evict and raze those communities because those are the last community who are gluing the fractured, uh, Palestinian state together.

Ariana Brocious: It's a challenging environment, both physically and politically. But Mahameed feels compelled to help.

Fareed Mahameed: Whatever we can do to help this community, you know, withstand not only the climate change, which is getting hotter and drier, and worse, but also, let's say the political climate, which is now very, very like, uh, violent and, uh, very, even life threatening is for me, like a very important job because if you want to see, hopefully a change or a peace, and I, although now it sounds very cliche, I still do believe in peace, 'cause I don't think there's other way than this way. And in order to do it, you need to, you know, to, to make your stand. So this is like making our stand with the community and bringing them like climate technology, and also climate justice and climate resistance to be like, to resist whatever happening there.

Ariana Brocious: The infrastructure problems there aren't easily solvable, but clean tech can help. In addition to her role with Arava's Center for Applied Environmental Diplomacy, Liana Berlin-Fischler is COO of Laguna Innovation, a company that grew out of research at the Arava Institute.

They make off-grid wastewater treatment systems that convert sewage into water suitable for irrigation, powered by solar panels.

Liana Berlin-Fischler: we have a system that is able to operate, with very low energy consumption, to the point that it can be solar powered entirely, and work for these very remote communities that would otherwise lack access to traditional infrastructure.

Ariana Brocious: That lack of infrastructure has created a Catch-22 for Israel's Arab Bedouin citizens. About one third of Israel's 300,000 Bedouins live in "unrecognized villages," despite being indigenous to Southern Israel's Negev desert, where they have lived for centuries. Fareed Mahameed says they can't get building permits if they don't have sanitation infrastructure, which he says the Israeli government has not provided.

Fareed Mahameed: one in two. living without a sewer system, one in four is lacking access to, you know, fresh and, uh, clean, potable water. Drinkable water, one in 10, lack access to energy, one in 10, lack access also to, to food, to healthy food.

Ariana Brocious: One of these unrecognized villages is Al-Furaa, where Arava and Laguna provided one of their sewage treatment systems. First, they had to build trust in the community

Fareed Mahameed: They were very suspicious. They gave us like their junk yard. We cleaned the junk yard, we put the Laguna system there as a pilot. We did research there. We involved the community. Now they have a functioning wastewater plant for the past four years, doing what Liana just explained and using that water to irrigate,

Liana Berlin-Fischler: so places like Al-Furaa, which are hyper arid, that suffer from droughts, you're saving money by reducing fresh water imports. You're saving money by, reducing the sludge. and you're reducing carbon emissions by reducing the trucking, necessary to evacuate the sludge you have a secure access to, to water that is good for crop yields.

Ariana Brocious: And this seems to be providing a workaround for the difficulty the people had in getting building permits on their own traditional lands.

Fareed Mahameed: We're finally giving a way out from this conundrum that the Israeli governments having with the Bedouin community. We will not, we won't give you permits to build unless you have infrastructure for sewage. So now we're saying you don't need sewer system. You could give license. Here's the solution for us. It's been been done there for the past four years.

Liana Berlin-Fischler: We're starting with the issue of sanitation. Public health, um, environmental degradation. These are kind of the things that scream out loud, um, and we're, we're solving that problem.

Music: in

Kousha Navidar: This is Climate One. For decades, the Arava Institute has worked to build trust between Palestinians and Israelis. But that trust was tested after the events of October 7th. Still, just two days later, they came together to support the people of Gaza.

Liana Berlin-Fischler: Our partner is in Gaza. She needs our help. Of course we're going to help. That's how kind of this project unfolded. And, we were the first public facing Israeli-Palestinian effort in Gaza.

Kousha Navidar: That's up next, when Climate One continues.

Music: out

Ariana Brocious: This is Climate One. I'm Ariana Brocious. Let's get back to our story about the Arava Institute for Environmental Studies, and their focus on using on-the-ground projects to foster peace. I asked Fareed Mahameed how he figures out what a community needs most.

Fareed Mahameed: So first of all, I said it's trust. Trust is the most, you know, valuable asset that you could have working with community. And why even trust? Because those communities are actually usually very skeptical and suspicious because they have been hurt many times, you know, by saviors I call them, who came, they say, want to do projects, and then they did what they needed for their own end goal project and they just left the community. There's a way to go to build trust with the community. Like, and how you do it is you start to speak with the community face to face. You start to live with the community. You start to go there and not actually, you know, just come say I'm doing a project or a research. So my approach is just usually go to the school. 'cause the school is the only center there. The only center that actually is making change is helping the community. And also you meet the next generation. And the most important thing is to make the community partners and what I call it to do an ownership transfer. So in a lot of developed countries you hear the same complaint that you actually, there's, there is no, no genuine process to build capacity to make them independent. So from my point of view is, um, you are my partner. We are having a very, like a gradual process of ownership transfer. And my dream is like, when I'm done, I'm, I'm gone. But nobody will feel it 'cause you're already gonna handle it by yourself. I want to delegate climate rights, I call them, which means the right for hygiene, for clean water, for food, for energy, for internet, to the community, want to manage it by themself. So this is how I came the idea to build the first off grid holistic integrative technology hub at a school in the world. where we put the first Laguna at a school in Israel. So they have their wastewater treating plant there. And uh, it's like, was amazing seeing them for like after four years, you know, managing by themselves. We actually providing them with hygiene before that was all like flowing in the percolating in the soil and contaminating the students and the environment. After that, I said, okay, what's next? Energy? They don't have energy. So we put solar agrivoltaic. Then we said, okay, what's missing? We don't have potable water. So brought water gen with atmospheric like, uh, water technology.

Ariana Brocious: Water Gen. This is a device that concentrates humidity in the air and turns it into drinking water.

Ariana Brocious: This actually sucks water out of the air. It's amazing.

Fareed Mahameed: Yeah, yeah, yeah. It's, it's, I call it desert dew. What's coolest than

Ariana Brocious: Desert Dew.

Fareed Mahameed: You drink it. Like, if you're feeling like in Dune,

Ariana Brocious The movie Dune.

Fareed Mahameed: the fiction dune, like it is actually like that. So, and also you have a biogas system, where you turn actually the organic waste. And also we have like aquaponic and hydroponic, uh, greenhouse where they produce their own food. So if you look at it all, it's like, uh, integrative in a way that all the rights are there. They can produce their own energy. They recycled their own waste water. They use it for irrigation. they produce their own water and also could produce their own gas to cook, like, and recycle their waste.

Ariana Brocious: Mahameed sees these "climate rights" – the rights to clean water, food, and

energy – as essential preconditions for peace. Back in 2019, the Arava Institute partnered with a Palestinian NGO called Damour for Community Development, to bring atmospheric water generators to Gaza. The group installed seven water gen systems in hospitals, universities, and camps in the territory. Then, on October 7, 2023, Hamas-led militants launched a surprise attack from Gaza, killing about 1,200 people and taking around 250 hostages. Israel's military response has devastated much of Gaza, causing widespread destruction and heavy civilian casualties.

Liana Berlin-Fischler: it has always been important to the Arava Institute and our very, very close, uh, Palestinian NGO partner, Damour for Community Development to always look forward, always look long term as well. But with the catastrophe of the moment, we needed to also adapt to meeting urgent needs so that people would live to see the future that we are committed to building.

Ariana Brocious: The "Jumpstarting Hope in Gaza" project began with the intention of creating green sustainable refugee shelters. And it happened very quickly.

Liana Berlin-Fischler: Jump starting Hope in Gaza unfolded I would say on October 9th we had a pre-scheduled call, um. We weren't sure if anyone could face one another., it was extremely painful, uh, coming to a call with that amount of emotions and shock and uncertainty. But we decided to meet anyway. and I think that even just saying this, that's sets the tone for, um, what I have learned throughout this time and the impact of trust and,, the ability to move into implementation mode and maintain relationships that even when it's hard, you show up, because you care about each other. And so on October 9th, we had a call with our mentor, former Ambassador Dennis Ross. And, um, had a conversation about, okay, We definitely did not know the extent of how things were going to unfold and the destruction. But we did know that what we can continue to do and is to show the world that Israelis and Palestinians refuse to not work together. And we refuse to let people continue to suffer.

Ariana Brocious: The Arava Institute mobilized urgent humanitarian aid, providing tents and shelters for people on the ground. When access to Gaza was cut off Arava pivoted – and started sending money through their Palestinian partner organization, Damour for Community Development. Tahani Abu Daqqa is a board member and volunteer with Damour. She got trapped in Gaza for seven months following October 7th.

Liana Berlin-Fischler: Tahani Abu Daqqa, who is one of the strongest, most amazing women I'll ever have the privilege of meeting in my life, she went, I believe October 6th, maybe fifth to visit her parents, 'cause she's originally from Gaza. And as a very dedicated community builder, she immediately went into action mode. And this is also how the Arava Institute came to say, our partner is in Gaza. She needs our help. Of course we're going to help. We were the first public facing Israeli Palestinian, uh, effort in Gaza. and I'm extremely proud to, to be part of that and to be able to say that because to show unity in this time of division, um, where our narratives are polar opposite and everything, including the international community is against the resolution of that division that we can hold this, little seed of hope that actually now Jumpstarting Hope is known very well in Gaza. And it's beautiful to me. And they know that, that, uh, it's partnered with Israelis. Tehani does not stray away from, from sharing this because again, the project, apart from saving lives and, and providing urgent aid, it's representative of what a future of cooperation could be.

Ariana Brocious: A shaky ceasefire is holding for now, but it's going to take years to rebuild Gaza and the future is very uncertain. Until large-scale rebuilding is complete, meeting basic sanitation, hygiene, and energy needs remains a critical priority.

Liana Berlin-Fischler: We have our dear colleagues in, in Gaza, uh, actually managing the camps that, uh, we are fundraising for. We're procuring, uh, aid for, so they're kind of on the

implementation side of things and, and we're on the, uh, technical expertise, the procurement, the logistics. And of course everything is in communication. And I think the success is that we, even before the war, we had gotten in seven water gen, uh, systems, which Fareed mentioned before, uh, which takes the, the Desert Dew and turns it into a potable water. so we had developed the relationship with the Israeli civil administration that is necessary to enter, um, items into the Gaza Strip, and built trust with them. Built trust with, uh, with Damour, which has been a relationship for nearly a decade now. and we kind of saw that success as this is what we're being called to do right now. We have this experience together and we can replicate it. So jump starting Hope and Gaza turned into this, um, opportunity, an unfortunate opportunity, but I'm personally grateful for it because, um, I think it has shown that most humanity, uh, throughout this entire war. And, um, that's what keeps me going.

Fareed Mahameed: We need to emphasize this is how you offer an alternative. For me, this is, was very emotional as a Palestinian because say, wow, there is another way I'm not like trying to, you know, to beautify the picture. But still there's a minority that offer a like a applicable, realistic solution to just, never ending, violent cycle. I believe in what I call the deep peace, which means I help like a small projects, small communities. And you know, 10 years from now this will be the reality everywhere. And once the re the ground is not on the ready is fertile, it will, it'll make the leaders to come to a realization that we need to go this way.

Ariana Brocious: Fareed Mahameed is assistant director at the Center for Transboundary Water Management. Liana Berlin Fishler is Associate Director of the Center for Applied Environmental Diplomacy at the Arava Institute and COO of Laguna Innovation. Thank you both for joining us on Climate one.

Fareed Mahameed: Thank you so much.

Kousha Navidar : Hey everyone. It's the end of our show, and that means it's time for climate. One more thing, I want to start by giving a love letter to public transportation and some advice for anyone that's gonna visit New York City. Yesterday, for the first time, even though I have lived in New York for a while, I rode the Staten Island Ferry.

Have you ridden The ferry before?

Ariana Brocious: I have as a tourist.

Kousha Navidar : There you go. So you know even better than I do. It is beautiful. It is free and it is fantastic. For listeners who aren't familiar, Staten Island is a borough of New York City. And to get from there to Manhattan, you can take a free ferry that takes you across the water.

Gives you a beautiful view of the Statue of Liberty and gets you to Whitehall station at the southern tip of Manhattan. And I took it early in the morning and it was just such a beautiful view and I thought, man, this is a great way to help out the environment. Save. More than two bucks that I would spend on a subway ticket.

And, uh, I just really liked it. It made me feel good about what I was doing, and I felt good doing it. So thank you for making that free. Even though I'm the taxpayer, that makes it free, but we won't get into that. Uh, yeah. So if you come visit New York City, it's a great thing to do.

Ariana Brocious: So Aqua t. Is great where it's possible.

Kousha Navidar : Yeah, that's right. How about you Ariana?

Ariana Brocious: I can't take a ferry anywhere 'cause I live in the desert. But for my climate, one more thing this week I'm excited that Time Magazine has released its third iteration of their Climate 100 list. They highlight people who are continuing to work at climate at many levels, including the highest levels of government, finance, tech, and business.

And there are a lot of notable names on this list and uh, you know. Shoulder. Pretty excited to see a lot of former climate one guests on this list. Um, also notable figures like King Charles and Pope Leo, who are not yet climate one guests, but you never know

Kousha Navidar : when, what are they gonna put you on that list?

Ariana Brocious: I Good question. Kousha

Ariana Brocious: Great question.

Kousha Navidar : I vote for you. I vote for you. I dunno if it's a voting thing, but I'd vote for you. Who do I have to call?

Ariana Brocious: Time? Yeah, call time.

Kousha Navidar : Time, time Magazine. Come on.

Ariana Brocious: And there's a bunch of people that I hope we get a chance to talk to sometime like Josh Green, the governor of Hawaii, Christine Legarde, president of the European Central Bank.

Just a lot of really interesting and notable figures and it gives me a real sense of optimism in this moment that there are so many people doing good work, um, when sometimes it can feel kind of dark.

Music: In

Ariana Brocious: And that’s our show. Thanks for listening. You can see what our team is reading by subscribing to our newsletter – sign up at climate one dot org.

Kousha Navidar: Climate One is a production of the Commonwealth Club. Our team includes Greg Dalton, Brad Marshland, Jenny Park, Austin Colón, Megan Biscieglia, Ariana Brociou and Rachael Lacey. Our theme music is by George Young. I’m Kousha Navidar.

Music: Out