

Linda Shi Cornell Adaptation Rerelease

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SPEAKERS

Doug Parsons, Dr. Linda Shi



Doug Parsons 00:00

Hi everyone this is America adapts the climate change podcast Hey adapters welcome back to a very exciting episode. This is a rerelease of the previous episode where I talked with Dr. Linda Shai of Cornell University. This was a very popular episode when it came out and I wanted to share it again. I just got back from the National Adaptation forum in Baltimore, Maryland, and I met a ton of listeners, many of them have been listening for less than a year, I tend to do this too. When I find a new podcast, I don't poke enough around in the archive. And many of these people I met weren't familiar with some of the classic episodes we've done. So that's why I highlight previous episodes, and in rare cases, I re released an episode like this one, Linda is doing some really amazing work. We discussed the adaptation sector focusing on how current adaptation planning can lead to inequitable outcomes, if not done thoughtfully, we also talked about urban planning and climate equity, why the city of Boston is still developing along the coast and what happened to the 100 Resilient Cities Initiative, these topics and much more. You're gonna enjoy this conversation and learn a ton. I did. Speaking of the National Adaptation forum, what a fantastic experience. There had been a long delay since the last one in Madison, Wisconsin. Thanks COVID. But a nice crowd shut up for this one. I spent two days wandering hallways, meeting listeners, hopefully getting new ones and seeing some great presentations. Lots of great adaptation work going on out there. I've done 172 episodes, and quite a few of my former guests were there too, and it was great meeting them in person for the first time Cameron Adams came on to discuss the national adaptation plan he drafted for Senator Coons office. Well, Cameron was about a foot taller than I imagined he'd be. I had some long discussions about the podcast with regular listeners. It was fun to answer their questions and give them some behind the scenes information. And it was great to hear what they did. The adaptation space is very diverse and only getting more so I was also able to record some interviews on an upcoming episode on doing early career adaptation professionals. That episode is up next. Speaking of upcoming episodes in the works mangroves as a nature based approach to coastal adaptation. I'm partnering with World Wildlife Fund on that one. And I'm also talking with Dr. Kelly heard of Liberty Mutual about climate modeling and what it means for the insurance industry especially relevant in light of recent hurricane impacts. And I'm working on an episode focusing on the infrastructure bill from last year and what opportunities for adaptation that holds for local and state governments great stuff on the way speaking of conferences, you've heard me mentioned this in previous episodes, I've got an exciting

opportunity for you join me and my new partner Battelle for the next annual innovations and climate resilience conference, or ICR 23. The theme is bold leaps and actions. The conference will take place on March 28. through March 30 2023. In Columbus, Ohio. I've been promoting this partnership for several months now and I'm hearing back from some of you that you're planning to go are very curious to learn more people at the National Adaptation forum approached me and had questions about this conference. So there is interest very excited to hear that ICR 23 is gathering innovators across industry, academia and government to share and inspire science and technology with a focus on climate adaptation and resilience. Patel is taking a lead in the resilience space and they want you along for the ride. Climate Adaptation is still an emerging field and we're still not seeing participation from all sectors. At many of our meetings. This conference has a track record of bringing in government, nonprofit academia and the corporate sector. Very few conferences have had success bringing the private sector but this one does. industry will play an increasingly important role in the years ahead with adaptation. Guys, this is a rare opportunity for all relevant players to come together to share expertise and create new partnerships call for abstracts is still open, here's your chance to share your important work at ICR 23. Some of the program themes include resilient built infrastructure, climate risk and national security, ecosystem restoration sustainability. So yes, nature based approaches to adaptation. Take a look at the conference website to learn of other themes. So join this conference where leaders and creators are sharing groundbreaking ideas and climate resilience. Even if presenting isn't in your plans. I encourage you to attend and connect with your peers. Think of all the partnerships and projects that are created during coffee and lunch breaks at these conferences. I did that at the National Adaptation forum last week. There is a huge demand for more adaptation themed conferences. So definitely check this one out. Don't forget submit your abstract today, visit patel.org forward slash adapt to learn more. That's patel.org forward slash adapts. Links are in my show notes. Support for America adapts comes from Battelle where science and technology are applied to help create a safer, healthier, more secure world. Okay, let's join Dr. Linda Shai and talk climate adaptation Hey adapters today I have an exciting episode on talking with Dr. Linda Shai. Linda is an assistant professor in the Department of City and Regional Planning at Cornell University. Hi, Linda. Welcome to the podcast. Hi, Doug. Thanks for having me. Okay, great. Well, let's jump into this huge shared with me a ton of material and I was going through it and you're doing some amazing work and you're working with a lot of practitioners. So we're going to try to cover quite a bit of ground in this conversation. But I guess just more broadly, what what are some of your research areas, I study how climate change affects inequality in our cities, both in terms of the climate impacts, and also the societal adaptation responses. And what we find is that not only are the climate impacts themselves on equally impacting communities, but societal adaptation efforts, because our own our society is already unequal and inequitable and unjust. Many of the adaptation efforts built into our existing institutions, similarly compound those inequalities. So revealing some of those inequalities is one part of my work. And the other part is then to figure out well, what would we do to try to improve upon that to try to reduce some of those inequities, and injustices. So I look a lot at how we govern urban and regional systems and the property rights at the governance institutions at the policies and frameworks that shape how we adapt to climate change. Alright, so I want to talk about equity. This is a big area for you. And as I was reading through some of the material that you sent me, I came across a term and I think that would be a good starting off point of how would you define racially just adaptation? That's a great question. I rely, I think, not not my own definition. But on the work of a lot of practitioners out there. Much of the adaptation that went on in the first five to 10 to 15 years has been trying to focus on physical systems and infrastructure systems. So you will do like a more top down analysis. And you'll map the vulnerabilities to say, this much sea level rise, temperature increase, or flooding, and what buildings what infrastructure is going to be at risk, and how much sea walls or elevation of different things are you going to do?

And a lot of that, because in the US in particular, in the beginnings, because there's not a government focused here, it there was no mandate from the federal government or from state governments, really, a lot of it was led by cities and by their concern. So cities, they have a fiscal concern in terms of what kinds of assets they're going to have at risk. Sometimes there was a strong business community as well as a foundation investment in these early assessment project. So a lot of the hazard focus was on flooding, and flooding by nature is focused on physical assets. And so it's not from a public health perspective. So a lot of it tended to be focused on business districts coastal properties. And so from a starting point of who has property to own, you already are selecting for a certain set of folks, and demographics and parts of the geography then when people started looking at social vulnerability and realizing oh, it's not just the physical aspects that impact vulnerability, it's also the social dynamics then they're you know, dry on Susan cutters, word people started looking at linguistic language, age, gender, income race. But it also tended to be a somewhat more statistical and superficial look at those indicators to identify areas that would be in need of assistance during a disaster to avoid the Katrina like impacts with people being stranded or during Sandy being stuck in their homes without elevators or electricity to operate their dialysis machines. So those kinds of things often neglected the historic impacts that structural injustice has had in this country in terms of where people own property where people are living, where they're renters, where they have few rights in decision making processes. They're, you know, in highly incarcerated communities don't even have voting rights sometimes. So there are both procedural and distributed injustices in terms of what what these communities are going through. And as adaptation efforts are moving forward, there's also market based adaptation or even government supported adaptation that makes a lot of sense where you say, draw back from the coast and invest in building more Highland high ground areas. And often those are places where people are communities of color, and their properties are more affordable comparatively. And it's easier for people to displace and to gentrify those places. So racially just adaptation. There's a growing movement among environmental justice community mobilization groups, and more progressive local governments as well as foundations and other think tanks that have come together and recognize the kinds of processes that have been taking place for the last decade and adaptation. And trying to think about, well, what would be a racially just voice and they actually use the word resilience, which sometimes is associated with a bounce back instead of a bounce forward and maintaining existing systems of inequality and injustice. And they have kind of appropriated that language and

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Dr. Linda Shi 10:00

So we define ourselves in terms of recognizing the historic forms of policies and programs and development practices that have resulted in our communities having the high levels of poverty being sited in places that are sometimes more invulnerable, whether that's in a low lying area or in more densely packed communities that don't have very much green space. So there's not much to improve upon in terms of offering new tree plantings and other kinds of greening measures. And so racial justice in this case means more jobs, training and preparing community, those kinds of communities to be able to take advantage of the new job force at being able to adapt to climate change, and do climate mitigation types of investment projects that have the capacity and education to be able to deal with some of these challenges where communities and community leaders and children and youth are prepared to become leaders in this task force, right. So partly it's education and capacity building. And partly it's building the ability of people to take part in political and planning processes more access, partly is having governments recognize the ways in which past policies have impacted injustice and inequitable development, so that you can even begin to have conversations around racial healing and trust

building to embark on new kinds of projects. And then there is a lot that is about prioritizing resources for marginalized communities. So instead of having a major seawall for Wall Street, why not tackle public housing, and NYCHA, as just one example, you mentioned many times, it's the material that you've produced, that adaptation at the moment really favors the wealthy, and that, you know, adaptation planning and how allocate resources being allocated. Could you give some examples of how and you've sort of touched a little bit upon it, but just how adaptation at the moment favors the wealthy over poor, especially in urban areas? Sure, I think that it's, for me, it's a relative and a relational dynamic, you can't just look at, you know, what are they doing or not doing for the poor, you also have to look at what are they doing for wealthier or middle class groups in relation to the communities that are poor. So you see this kind of what we call in one paper acts of omission and acts of commission, an act of commission might be, let's say, for physical infrastructure, where they are investing in a seawall or planning for seawall, investments, in particular neighborhoods, a lot of this is in planning stages, you know, there has not yet been all that much implementation on the ground for adaptation work. But if you look at things like the seawall planning for lower Manhattan, that was talked about around Wall Street, you know, that would be one example where this kind of billion dollar project, actually I think, is a \$10 billion project, if it goes forward, would protect some lower income communities like Lower East Side, but a lot of it would be higher end properties. By contrast, you know, if you look at NYCHA properties, NYCHA is the New York Public Housing Authority, and it's the largest public housing authority in the country. It's in bankruptcy, it hasn't done a vulnerability assessment, much less resiliency upgrades for a lot of the properties. There was some funding from FEMA after Sandy. But it was for only those properties that were affected. And there are a lot of properties that are at risk of future and other kinds of disasters, but we have no idea how much risk they're in because the assessments haven't even been done. So some other you know, it's not only the physical investments, you might also look at the process and access. So within a lot of task forces, you'll see disproportionate representation by business of commerce, some major foundations, major business owners and business leaders that are the major influencers within a city in terms of their political influence their foundation influence or financial influence, and some cities now have representation from community leaders, but often it's not as much and in the planning processes for specific plans. That also is a question whether lower income communities where English is not their primary language communities where adaptation is one of many concerns, whether they're able to participate and inform those plans as much as others might be able to claim resources. And finally, you could say that kind of inequality also plays out in terms of enforcement of policies. So for instance, you might say that in some areas, you're better able to enforce regulations on certain communities. Now, FEMA has come out is now the Army Corps is saying that the local governments have to use eminent domain to force communities who are residents who are living in flood plans to move out of their homes. Otherwise, they'll be denied federal funding packages for floodplain buyouts or other kinds of flood recovery. So the kinds of communities where you're more likely to enforce that on are also likely the ones that have less political power, compared to ones that are, let's say, a central business district, you're unlikely to be eminent domain, a wealthier homeowners compared to low income or renter or more marginalized groups. It occurs to me in this growing awareness of inequity and climate justice, environmental justice, and yet I don't see it said enough behind a lot of that is just plain old racism and you look other issues and things that you've talked about as goals and housing, and just this intractable racism that drives a lot of these inequities. And I guess what I'm getting at with you is, how are you seeing that, especially with adaptation, but there's almost there needs to be an acknowledgement that we're not going to maybe make the progress in the field of adaptation around these issues. If we don't acknowledge a lot of this is just, it's race driven. I think you're absolutely right to call that out, especially in our country. I will say that internationally, where we've done this work that these similar dynamics play out, and it's not

necessarily race driven. Sometimes it's class driven or caste driven or ethnicity driven. A lot of it is class and other societies where race is not as predominant a divider. But certainly in our country. I think that's, that's true. And in many respects, I think in cities that plays out a lot to that extent, I think it's also very much possible that as we see larger shifts geographically that it will affect rural regions, as well, to some extent where there is proud predominantly white and growing diversity in rural and suburban areas as well, because part of what needs to adapt is also our agricultural systems, our farming communities. And I think that that's, that's also possible to happen. So I want to kind of come back to this, it's going to thread through our entire conversation, but some of the specific research that you've done, and I thought it was really interesting, because it's just very practical, easy to digest information as the work you did in the Boston area around what six feet of sea level rise is going to mean for some of these coastal counties. And and please re explain it just how it will negatively impact I guess, the tax revenue that they collect, because they've lost these areas that no longer right generating property revenue. Is that what you were looking at? Yeah, I think that a lot of what adaptation and planners being very rational, sensible people were looking at is saying, hey, if we present you with factual information, downscaled climate data, and we show you that the flooding is going to get worse, and the sea level rise is going to come, surely you sensible city person is going to respond by saying we should not develop more there, we should draw back, we should begin to put in more restrictive zoning more restrictive standards and start to manage our development. If maybe in the long term, managed retreat and pulling people back after a disaster, maybe buyouts, but certainly don't be putting more development on the coast. That seems very logical. And yet when you look at every city that is on the coast, and a lot of them are experiencing of revived interest in urban development, all of them are building on their waterfront on their low lying areas on the riverfront in the areas where their own climate assessments are telling them are highly vulnerable. And so I was really struck by this dynamic and the fact that among practitioners, people are very cognizant of the fact that, you know, political decisions around development are often made with their budgets in mind. And yet we in the climate planning community really don't think about budgetary and fiscal policy as one of them vulnerabilities that we assess. So we assess for physical vulnerability of infrastructure and build built assets we assess now increasingly for social vulnerability and where low income people of color aged people tend to live. But we don't usually look at the fiscal impacts. So our assessment was to take the property parcel maps and the tax maps, and overlay that with a sea level rise maps for coastal Massachusetts. And we find that you know, with six feet of sea level rise, I think something like 12% of the taxes, current and property taxes currently generated by those coastal communities will be at risk of being permanently inundated with six feet. And I should say that six feet of sea level rise is also a quite conservative measure. globally. When you look at the flood measures, the 100 year floodplain and the 500 year floodplain tend to be like a magnitude of 10 or more larger than the six feet of sea level rise so intermittent storms can certainly be much bigger than than that in At, but 12.5% aside, when you look at each municipality, it's really only like eight municipalities that are losing more than 10% of their total local government revenues. So if you you're a city like Boston, I don't know the exact number, let's say you have several billion dollars in your annual budget? Well, I think for Boston, it's like 16% of that is at risk, because there's a high reliance in coastal Massachusetts, on property taxes. So depending on some of the states, municipalities in the US realize something from 10 to 80% of their total revenues may come from property taxes. And if you take a lot of that away, whether because you know, the the ways that your property taxes may decline could be many one could be if you're getting repetitive flooding, or there's perceived risks and property values began to fall, you have to have flood insurance, there's studies that show that the more that you require, and flood insurance dramatically more, like 10s of 1000s of value is lost in your house. Or it could be that the government, state or federal buys out properties after a major flood. Whatever the reason, if you lose that property tax base,

then your property taxes begin to fall. Similarly, your user fees and charges, which now also constitute a significant share of local revenues, will begin to fall in terms of utility bills, your parking fees, development charges, all sorts of fees and charges that people have to pay that will begin to decline as well. And all of that then means that the city has less money to put back into their expenditures, and expenditures for municipalities, the biggest ones are your schools, your road maintenance, and infrastructure maintenance, and your water, and sewer utilities. And all of those things are at risk of climate impacts. So the more that you have climate impacts, and then the less you have to be able to maintain or anticipate or restore those kinds of climate damages, the more your whole town services begins to decline. And that can begin to trigger a vicious cycle for communities that cannot get out of that cycle.

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Doug Parsons 22:15

I imagine a city a lot of these are just individual decisions being made by you know, a real estate developer, and they want to this is the property value on the coast. And there's so much payoff in regards to that. And so the city, of course, that's the permit, but there's they have powers, I guess, to prevent this from happening. And then I guess, larger players to have insurance companies, we're not going to ensure this big, huge new development on the coast, there seems like there's a lot of opportunities to discourage this. Why isn't that happening?

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Dr. Linda Shi 22:46

You know, there's that's a great question. That's a trillion dollar question, right? Our institutions are very path dependent. And they are hard to change. I think there's so many potential pathways, because it's such an interlinked system, it's hard to pull one particular lever and expect a lot of change, when the whole entire system is not coordinated. So you're right, that of the insurance system is holding a lot of this up. And the moment that they decide to change your policies, a lot of other things are going to change, why don't they change the policies, because they know that a lot of their own property value and their own assets are held in that right. So their own value is going to be lost if they change major policies, and it's going to have bearings on their revenue stream. So the insurance industry certainly has a vested interest, but they're also either co owned by other major global conglomerates that also own a lot of real estate themselves, or they're partners with entities that also have a lot to lose. So they have to be very careful in terms of what policies and how they change. If you're looking at this level of a city, why don't they change? You know, I had one planning director in Metro Boston tell me if I elevate my zoning standards, and I say, you know why developer and this was a they had a real development case that they were considering you're trying to build something in a floodplain. And so in order for you to get out of the floodplain, you need to fill this site by six feet. So filling a large development site with six feet of fill is a very expensive proposition. And very likely, that developer could say screw that I'm going to the next municipality over they have a lot of similar amenities and benefits. But there you don't have this regulation. So in our very fragmented metropolitan areas in the average metro region in the United States has about 100 municipalities. That's a lot of entities to coordinate given the kind of figuring and lack of coordination that already happened. So there are growing initiatives around the country where Metro regions are trying to create these voluntary collaboratives to coordinate a lot of this standards Vall. inherently, then that works to some extent. But when the when push comes to shove, a municipality still has to respond to their base underlying budgets. It's nice to talk the talk of coordination and being altruistic for the regional good. But if the standards and that's

why I looked at the fiscal tax policy, if those expectations are that each municipality has to fund themselves, then the municipality is going to try to do everything they can to maximally develop for as long as they possibly can.

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Doug Parsons 25:32

Okay, speaking of 100 cities, I want to talk about the 100 Resilient Cities Initiative. You've talked about this in some of the material that you've presented to me, what was that trying to accomplish? And if you don't know, Jason, something we did this week won't go very far. But that recently, I think, in the last year sort of fell apart. And I'm just curious what your thoughts on what what was going on there,

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Dr. Linda Shi 25:52

specifically around why that fell apart is because Rajiv Shah became the new president of the Rockefeller Foundation. And he saw that the Resilient Cities Initiative was really an effort by the outgoing president to to throw it in. And it had been ballooned to be a tremendous organizational requirement had a lot of staff a lot of funding requirements, and it wasn't a priority for the new president. So he ended up quite abruptly. And so I think that points to the kinds of promises and pitfalls of foundation funding, I mean, foundations, that's a whole nother topic of how much wealth I hope you have a podcast on foundations, how much wealth they now have, at nobody had seems to have money except for the billionaires and they, they now have many, many very powerful foundations of foundations have been very influential in funding adaptation. And so they can operate in a space of innovation that is outside of politics, and the political constraints of partisanship around climate, they can move more agilely on this, but it's also when they feel like it's not their priority, that funding stream is now gone. And so for 100 municipalities, sure they never expected funding beyond the two years, what the program did was that it funded a resilience officer in each of the selected cities. It gave them like a million dollars, I think a lot of that was the fun that position. And it gave them a network to support technical assistance and peer to peer learning across those entities. And so for many of these cities, now they have to really think about, where do we get the resources to sustain the things that we started? And some of them I think, are more embedded than others?

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Doug Parsons 27:32

Yeah, I guess a couple things in regarding the foundations, I totally agree with you. And ironically, since they have so much flexibility, they are actually some of the most conservative thinking organizations in regards to trying innovative new things and yet, talk about funding communication things. I don't want to go there. So yeah, you're you're you're taking a chance by having them as a partner in that regards. And what I've found in I didn't interact with the chief resilience officer is very much I encountered a couple of them. But what I found in at least a few of the cities is that, especially if the cities were, I guess, the bigger funder of the position, rather than the foundation is that they kind of morphed into Chief Sustainability officers, if you looked at their adaptation and even resilience mandate, they shifted, and I don't know if anyone's, it's probably worth just doing an assessment, a PhD graduate study of what happened there.

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Dr. Linda Shi 28:25

So they did fund I don't know what it is like when the entity being evaluated funds, their own evaluation, but they funded the Urban Institute to do monitoring and evaluations around the project. And the Urban Institute has come out with a report about the project or the initiative. I think anecdotally, from what I have heard is also that it was a very top down process where they had developed, it's, it's interesting, because the roots of the 100 Resilient Cities is actually from the Asian cities for climate change resilience network, where the Rockefeller Foundation funded was something like initially 10, and ultimately, 60 smaller cities in southeast Asia, South and Southeast Asia, to pilot adaptation, climate vulnerability assessments, and those were all supported by NGOs. And it was a much more community based bottom up driven approach. And rather than learning from that, quite separately, the Foundation decided they needed to scale up and there were political motivations for doing that. But they would scale up and they had worked with Arab, this Consulting Group based in London to develop a resiliency framework. And then they said, Well, you apply to be a resilient city. And if you are designated as such by us, then you will use our resilience framework and implement and become resilient. And for a lot of, you know, if you really were a resilient city to start with, I mean, there were the Durbin's of the world, you know, led by Deborah Roberts, who were doing incredible work was much more contextually and nuanced for those political contexts to be told, this is the way you do resilience from this particular framework was, I think, quite uncomfortable for some cities. You know, a lot of them went along with it, because they needed the funding, and they saw the benefits of working with it. But what was really happening behind the scenes? How much of it was the satisfy the donor? Or how much was on the ground? Quite different? I think that that is a study that's waiting to be done.

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Doug Parsons 30:26

All right, listeners get on it. Just my kind of final thoughts on that. It's like, you know, I think we're gonna have fits and starts regarding this coordinated adaptation planning among cities among states. And that was, you know, it's an ambitious effort, and it just did it, there's going to be more there's going to be other attempts that that and I guess that's a good thing we could learn from it. But on that note, I want to transition into a paper that you shared with me that you wrote with Dr. Susie Moser, and basically transformative adaptation is one of the bigger points and I want to kind of dig into that, but what was the research paper about?

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Dr. Linda Shi 30:57

Okay, so this is a draft paper. Oh, okay. I'm sorry, that out there, and it hasn't gone through the review process yet. So we we had originally written it for HUD, which is a HUD housing and urban development department. And so a harder kind of federal perspective to it. And we try to call out what are the major trends happening in the adaptation sphere right now. And we saw three major trends. And one is that the at the federal level, there really is a kind of neglect of adaptation planning for the Ark of that history. You know, during the second term of Obama, he made some efforts to start doing national more national assessments created a tribal, state and local government task force to say what should the federal government be doing, they passed some executive orders that were requiring FEMA and other federal agencies to account for climate change impacts in all of their programs and their investments. And that was pretty huge. And they were making steps to coordinate across the agencies. And of course, through

federal funding and expectations, that trickles down into influence all the projects where the feds have their hands. But under President Trump, all of those executive orders have been revoked and replaced by new executive orders that do not meet those requirements there, they have not yet prohibited those necessarily, but they no longer have those in place as requirements. So at the federal level, there is a complete lacuna, like a gap of silence on these issues, which leaves no guidance and no mandate for lower levels of government as they are trying to coordinate. And at the state level, a number of states now do require state agencies to do what the feds had said the feds to do which is to require the states to think about climate impacts in all of their programs, their facilities, their investments, and some of the local governments as well. So there's now a lot of very different standards and expectations happening on the ground. And the feds in no way at with a national probio are trying to coordinate in that space. The second one we saw is AI in terms of in the industry world, industry is not blind to what is happening with climate impacts. It's having tremendous fiscal impacts to insurance, reinsurance all sorts of asset investors, to banks, the mortgage lending to all of these financial industries, as well as the design and engineering industries, which could be legally liable, because they have certain standards of care that they are expected to provide designs that can function in the world to a certain level of expectation. And if your building or your infrastructure doesn't perform the way that you said it would, given the known signs of climate change, then you could be liable for lawsuits. So across these kinds of design builds, and financing industries, there are a lot of discussions and rapid movements to figure out how they should be changing their standards. And so there's a lot of technology that's now being used to monitor and figure out where the highest impacts would be. And where should we fund those things Jesse Keenan did some have a great paper on that. It's like a small arms race to figure out where those risks are. So in those respects, there is dramatic change that could happen at the building code level International Building codes that might actually even supersede whatever the federal government is talking about, if that becomes a systems wide professional expectation that might override it. And finally, at the practitioner level, and among academics, to some extent, there is a lot of conversation about the equity piece about the racial justice piece, about the fact that the scale at which we have been doing a lot of our adaptation planning is insufficient, because the impacts have been far exceeding what we've been planning for and the scope of it is going to be so much more. So to give you one example, FEMA has a National Flood Insurance Program and the past 40 years yours has bought out 40,000 properties, there are a number of properties that are within six feet of sea level rise is 13 million. So what is the scale of what we're talking about? And what is the migration impact of where people are going to go? How much housing are you going to have to produce? And where is it going to be? How much infrastructure you endeavor to build to accommodate that much new residents in different places. So across these three trends, I see two major things that you can observe. One is that there's a big policy divide between people on the ground at the local level industries that are saying we need drastic, dramatic, organized system wide change. And the federal government that's doing not very much and I should say, at the federal level, there's a lot of fiscal risk as well, to all of these impacts. The federal government is the biggest owner of land of agriculture, insurance of flood insurance of major facilities, military installations, all of these are at risk, right. And it's having to pay out disaster aid, even in the year that Harvey Maria and Irma happened, disaster recovery that year. And this was after the Republicans were arguing that we should reduce femurs role in disaster recovery, then all these disasters happened, we added 18% of the new additional debt we took out that year was for the disaster aid that we gave to a lot of the southern states. So the fiscal risk is certainly there. We're not doing very much about it or or to coordinate. But the other piece is that between the actors that are acting on the industry side, there is a kind of concern, primarily of legal liability and of financial risk to the major financial insurance institutions, but not a concern necessarily of place. What is going to happen to particular places when these policies change?

What will be the equity impacts? What would it mean for the function of communities and a sense of belonging and sense of low local community that's not in their perspective or their concern. And so there's a big divide also between actors that are moving towards systems wide change, to mitigate legal and financial risk and those working at the local level that are concerned about equity and justice and community and continuity and ethics of care. But they're at a much smaller scale. And so in conclusion, what we were arguing was a set of things that, as we say, you can how can people come to the table or play with what's at the table already? How can they deal with what resources they have? And we said that there are things that people in federal government can continue to do to be active, you can talk about these issues without using climate change and resilience. You can look at it from fiscal perspectives, from financial from insurance from legal perspectives, and not be dealing with the climate piece, which can be politically difficult at this moment. The last part, I'll say that, from those who are outside of government, there is such a need for transformational thinking, and creating spaces of innovation where we think across boundaries, whether that's geographic or sectoral, but also between the design and governance perspectives. We're opening our minds so much to lose sky, innovative design and landscape and living with water approaches. Why are we thinking about that with our institutions, and how we govern and how we own and how we tax different things? Those Those should be all combined. And there should be a huge conversation about how do we prepare people and have those really difficult conversations that go back to racial justice, reparations, national healing, in order to commence on this project of anticipating huge new changes that will cause new kinds of trauma, so that we can be adding in an ethics of care approach rather than a competitive capitalist, maximally profitable approach, and we can get into the Coronavirus, but the current moment is very indicative of where we are on that landscape. Okay, so

D Doug Parsons 39:09

that paper covered a lot of ground. When does it come out?

D Dr. Linda Shi 39:14

We need to submit it to a journal. It cannot go to where we had hoped it would go. And so we are searching for a new place to park it. And it'll have to go through a review process.

D Doug Parsons 39:25

You bring back memories. I worked for the National Park Service and Department of Interior sort of early in the Obama administration. I remember when those executive orders were coming out and I was part of I was based in DC and part of a lot of teams and committees that were there to implement it or provide feedback for it. And there was a lot of excitement and energy. But looking back in hindsight, a lot of it was just Toothless. And the notion of these executive orders, some of them are just I guess, more respected than others. And so the National Park Service took those executive orders very seriously and they had a very robust climate plan but other agencies that kind of went through the motion and I unless you're tying it to budgets in staffing and all that it was a very nice polite way of saying half assed approach

to doing adaptation at the federal level. And you know, I don't knock President Obama, gosh, those are the good old days. But it just, it there needs to be some serious mandates, when the next administration comes through that wants to pick up the mantle and adaptation,

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Dr. Linda Shi 40:25

I can give you the example of the west coast in the Bay Area, they regional politics, and the Bay Area is like a political sport there. And they have a long history of trying to move towards regionalism, and sometimes oftentimes not succeeding. But very interesting. They have four major regional entities governing institutions, one around air quality one around the coastal zone, it's the Bay Area, one for transportation and one for land use planning. And they had an they've been trying to come together and coordinate these four entities in order to make climate policy, which is a cross cutting issue across the four entities be more coordinated across them. And they have certainly been struggling a great deal because there are different institutional personalities that institutions themselves have different ways of knowing, like understanding and behaving, what is constituting knowledge and those fears, and they have different regulatory mandates. And getting all of those actors together beyond talking shop in a nice coordinating meeting, people tended to reach to return to their respective agencies and do what they needed to do. So there have been some interesting things like one was just having to be in the same building. And in a Pixar like effort to share floors, across agencies were the same staffers that have similar responsibilities are on the same floor. One is like the transportation agency had a kind of hostile takeover of the planning aid, part of the planning staff in order to integrate some of the land use and transportation planning efforts. And I think that's certainly one of the spaces observe as to how regionalism How much can you actually coordinate and how much can soft efforts have coordination and capacity building and language versus Reg, hard regulatory expectations that they're doing both

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Doug Parsons 42:22

there well, with, you don't have to agree with this. But this whole process, how you do it, independent of the politics of it, but with DC, there's this habit of people kind of end their careers, they're sort of the end of your career, federal employee, and these are the kinds of people participating in so they go your last five years, you take the average, and you're gonna get your salary for that. So go to DC, where you get paid the most because of location pick, you'd be in a room full of these kinds of people. And not to say some of them weren't completely enthusiastic about trying to make this happen. But at the same time, there is this notion of people, they're just mailing it in. And I think a lot of initiatives like the adaptation, the federal response to it suffered. And, you know, I was like, 40, I wasn't like some youngster, but I'll always be the youngest person in the room. And it just, again, maybe the Pixar model, I just think the federal government is so poorly designed to deal with something like adaptation and and all the I think what your paper is, as you described, it could be such a roadmap to do some more effective planning. But I don't want to, I don't want to go down that rabbit hole, I want to kind of pivot to the sort of the last portion of our conversation. And I'm really interested in your opinion on this, and especially relate to this paper and this notion of transformative adaptation. And Susie Moser actually had her on the podcast a while ago, it's been a long time. But I'm curious your thoughts about and I asked this, a lot of my guests of the adaptation profession in

general, like you're not just an academic university, you're actually dealing with practitioners quite a bit. Are you following how so the broader adaptation universe and profession is evolving and kind of emerging? Do you have? What are your thoughts on that?

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Dr. Linda Shi 43:59

Gosh, I think in some ways, Suzy is a much better person, because some of the work that they've done for Kresge Foundation and others is to canvass the fields professionally and see what has been happening on the ground. It's been exciting to see a number of professional networks startups so you've had people from like ASAP and others come on the podcasts and so there are entities trying to professionalize and create more coordination of what what do we mean by adaptation? What do we mean by resilience? What are the kinds of things that we should be promoting and institutionalizing knowledge and learning across the many people on the ground? I think that there's such a lack of despite those networks, it seems like a lack of coordination and also, resilience has become such a hot new topic. I expect that pandemic planning will be the hot new thing after this in terms of people offering their services but everyone is turning you know, just as you said like Jesus stainability Officer, every one turn what they were already doing, they called a resiliency planning, it becomes a new way for a new vehicle for you to push through things that you were already caring about. And professionally, I think there's also a lot of groups that, rightly or wrongly are trying to convert what they're doing to this topic, but not always necessarily fully understanding the implications of different kinds of approaches to doing what they're doing. And so many groups now are saying they do resiliency or adaptation. And I think that there are a number of different kinds of political projects or intellectual projects that come under this one banner. And it's hard to say, really, what is the movement doing? Because in a way, resilience is also so broad, that it's like, where's our society going? It's all of these different aspects, is it going to become more spatial fix capitalism, where the asset owners of South Florida say, Okay, let's go invest in Buffalo and Rochester, they have a lot of underutilized infrastructure, and they causes new rounds of displacement and gentrification in those areas and new kinds of accumulation as you buy low and sell high. Is that what's happening some in some places, that's going to be what's happening in other places, and will be more community based bottom up, like the approaches the we at the catalysts of the world, those kinds of organizations are pushing for a very different notion of change. So we're seeing everything happening.

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Doug Parsons 46:27

Well, I just find it and I feel like with my podcast, it is a pretty loose network of people trying to create some consistency. But I'll have conversations with people, you let's say at the state level, doing some really innovative adaptation work, and I'll bring up oh, well, what about this Global Commission on adaptation? And they'll have never heard of it. And it just it's, it's really just all over the map. Like what really is it mean to be an adaptation professional and your point, if you go on LinkedIn, all of a sudden, people have been doing adaptation for 20 years, right? And they just listen your environmental planner for 20 years, and you've only been doing adaptation for the last three, wait, I've been an adaptation planet for 20 years, and I get it. People have to kind of do those things. But it's all over the map now and have you you'd mentioned ASAP, but what about the national adaptation for Have you ever gone to one of those?

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Dr. Linda Shi 47:16

I've been to one of those, maybe two of those. And I think that's also interesting in the conferences. There are a number of conferences, there's what like future Earth, that's much more industry oriented your pipes and engineers and product marketing. Then you have national adaptation Forum, which is more practitioner, us focused future Earth is international. This year, it was going to be in Delhi, I think that's probably been canceled for April. And then you have the FEMA oriented ones that are more hazards, but not disasters. And then there are various geography planning conferences that are quite academic and more intellectual and more critical. But there's oftentimes not really a bridge between these different entities, or even I was at the managed retreat conference, which was at Columbia last June. And that was an innovator con, you know, five years ago, when I was doing field research, people would say we can't use a re word redevelop resettle retreat. That's like an illegal word. And so now, five years later, we have conference on this topic. And they did an excellent job of inviting, like a wide spectrum of people from academics, indigenous tribal leaders, financial people, people in insurance, like a very wide range. And even then they have really two separate conversations or like they were often not in the same room, the different panels would attract different kinds of people. And so you have the legal and the financial and the bio people having those sets of panels, and then you'd have like equity, justice, local governance, communications, tribal elders, local planners, consensus building, Institute type people in another set of panels. So bridging those spaces, I think is going to be so critical to having exciting, innovative out of the box integrated and coordinated thinking. And I think foundations have a big role to play in that and so far, I don't know that that's been happening. Oh, I

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Doug Parsons 49:20

think we're getting some guests participants here, aren't we? So it's, that's perfectly fine. I'm going to leave all this to because this is a nice stuff flavor to like, what's going on here. Okay. And now I have a few more questions. But in regards to, you know, creating the next generation of adaptation planners, I find the university systems in the United States that are really kind of lagging behind offering adaptation theme programs. There's plenty of professors out there like you doing great adaptation work or that you might be part of an institute but actual master's programs or PhD programs. What's Cornell doing it do you approach it from a coursework kind of way? or is it? Are you just bringing in sort of graduate students to kind of work on projects you're on?

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Dr. Linda Shi 50:04

That's a really great point. And this is also one of Susie's big bones to pick as well, is that you're absolutely right. There's so few programs that offer that. And I think Cornell is there are people individually doing some adaptation work, but by no means is it institutional allies across the university. I suspect that some of the state universities and Cornell is actually part state parts SUNY, but some of the state universities in the disaster belts like Texas, or Florida or South or North Carolina, they have more going on in terms of disasters and adaptation programs and certificate work. But a lot of the more elite schools, I don't know that they have taken this topic as seriously. And so even as I think about, like, how would I get this big institution to take this topic seriously, to offer it, it takes a lot of investment and legitimization. That happens. And I also think that it's not just about like having some certificate or program like Landscape

Architecture, Planning, public policy, we come together, we offer some certificate or planning, where I'm based, we offer a certificate or degree program in it, what I think really needs to happen following up on what I said about innovative out of the box integrated thinking is that it needs to be embedded across the institution, like law schools should be talking about this business school should be talking about it. The Ag school is already talking about it in terms of climate resilient planting, and what is happening, what's happening with disasters in rural communities. But honey, I'm talking to somebody else, you're gonna have to go go somewhere else. Okay. So you're gonna have to go, Okay,

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Doug Parsons 51:42

thanks, my youngest participant on the podcast, great breaking barriers here.

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Dr. Linda Shi 51:48

So I think that that needs to happen. And that requires not just even the president maybe caring about this issue, but like all the deans caring enough to then hire faculty in these areas or, or for individual faculty to put aside or to transition from their current academic interests to develop these initiatives. And then to be able to teach classes like right now it's very siloed. Law school students take classes in law school, Dyson's business school students take it in business planners, the more soft side, we take our classes in those areas, there's not as much conversation as needs to happen. And if it's not happening in a more fluid place like a university, then how would that prepare them to go out into the world and be innovative boundary spanners out there in the professional world? So that's my ambition is like in the longer term, aside from tenure track is to try to create that at Cornell. And I hope that others are doing similar good work at their universities.

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Doug Parsons 52:48

Yeah, and I think in the next five years, we're gonna probably see a lot of one year certification programs and those practicums where you can do adaptation, but like full on master's programs and adaptation that are like cross programs like you're describing, I still think we're a ways away. And I think Canada, I hear from them quite a bit. They you know, this University of Waterloo, they have a master's program and adaptation. And I've someone shared with me the coursework is like, wow, I mean, they put a lot of thought, yeah, and I don't know why you as schools are lagging on that. And on that note, before I my last couple of questions with you, you'll you'll find that my my listeners like to reach out to my guest and a lot of students listen to the podcast, aren't you accept students right now, in this kind of field? People are desperate to get into the adaptation profession. How does that work with you? Are you kind of looking for students?

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Dr. Linda Shi 53:34

In terms of graduate students?

D Doug Parsons 53:36

Yeah, like if you you know, a graduate student wants to work on an area that you're working on. I'm assuming that you've got some PhD students working with you?

D Dr. Linda Shi 53:44

I do. I mean, absolutely. I would love to have students. I've had some terrific masters students work with me in the program. And increasingly, some PhD students. So absolutely apply or reach out. If you have questions, or you have things you want to talk about. I'm happy to engage with students who are listening,

D Doug Parsons 54:04

you will probably hear from some people. Okay, last two questions. And these are what I asked everyone in this first one, you can give it a little thought, but in the adaptation space, who has been an inspirational person for you?

D Dr. Linda Shi 54:18

That's a really good question.

D Doug Parsons 54:20

And they might not even be adaptation area, but they've sort of informed you or they've helped you kind of do better what you're doing. I've had guests use a person who and it's not necessarily an adaptation person.

D Dr. Linda Shi 54:32

That's so interesting, because usually I just, I look at pieces of different people's work and then I put it together and it's hard to pinpoint a single person who is like an arch

D Doug Parsons 54:45

someone think about Twitter so when you're just like, You know what, got there. But you know, you know, there's a lot of academics who post on Twitter's like they're doing some really innovative work and or practitioners that you've dealt with in the field or anything like that. That prompting helps,

D Dr. Linda Shi 54:59

I think I admire a lot Elizabeth young here, who is I'm not sure exact title, maybe she's the executive director of our here, which is a community organization in Sunset Park in Brooklyn

executive director of our pros, which is a community organization in Sunset Park in Brooklyn. And I mean, I've seen I don't know her, I've seen her present. And I started follow her on Twitter. And I think for me, like when I'm getting cerebral or critical, and I'm critical of across the board, from the financial institutions is government entities, there's sometimes community organizations. And I always come back to the kind of work that they are actually doing on the ground and being reminded of how no matter how important I think that adaptation is that communities are dealing with such a myriad set of pressures and challenges. And that includes for sunset, places like Sunset Park, incarceration, returning out of incarceration, ice, and immigration challenges. DACA students being returned, housing, displacement, affordability, health and environmental injustice, around pollution, access to transportation, all of these different things, they have to cope with it with such little resources. And yet, groups like them. And all of the most inspirational projects that I've seen, they are always led by women in a community association type of a format, who are leading change because they're invested in the long term, and they're not being paid big consulting bucks to do it. So when I feel like I'm being very proud of myself for some new argument, I always try to check it again. What would they think or what my groups like that be saying about my work?

D Doug Parsons 56:48

Cool, very good. And this is related. But hopefully, you can come up with just a different person easily. If you could recommend one person to come on my podcast that I could have a conversation with? Who would it be?

D Dr. Linda Shi 57:01

If you haven't had Elizabeth, I think she would be incredible. Oh, you

D Doug Parsons 57:04

got to pick someone different. You got to be I tried to get these are people that like my listeners like the look up and they learned a bit more about so I'd like they all have to hear.

D Dr. Linda Shi 57:12

I'm very impressed also with Malini Rhonda Norton. She's a professor at American University in geography, but she was a planning PhD student at UCLA. And she does incredible work in the DC area, as well as in I think, Bangalore, in India, around water governance. And in both cases, she's looking at resiliency, and justice and equity issues. And in the DC area, her work has been to show how resilience has had a more regressive tinge. Like it's just another word that you can label the kind of displacement pressures, you couldn't get rid of these communities through other means. And now while they're in a floodplain, this is a good reason to get rid of them. And then you install some other climate resilient development or district there. But instead, she looks at the kind of much more deep rooted community ethics of care that have evolved in some of the Northeast neighborhoods that have countered all sorts of violence and prejudice and healing through caring for the community and its sense of abolitionist planning, rather than a resiliency planning. And I think that's a really interesting perspective in the midst of

everything that's been happening. And she connects that to other words that she's been doing in an international context where somewhat similar dynamics are happening in water availability and water scarcity in a rapidly developing high tech city like Bangalore.

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Doug Parsons 58:40

All right, awesome. suggestion. Okay. Thank you so much. This has been a fantastic conversation, you are just doing such a wide diversity of work. I hope folks can kind of dig in and you know, you'll share as much I'll have it on my show notes most of the material you have. But yeah, thanks for the great work that you do. And thanks for coming on the podcast.

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Dr. Linda Shi 58:57

Thanks so much for having me. It was really fun to talk through all these issues with you.

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Doug Parsons 59:04

Okay, adapters, that is a wrap. And speaking of that, as a wrap, I got a chance to spend some time with Sean Martin and Anita van Breda from World Wildlife Fund. I stayed with John when I was in DC, and I got to hang out with both of them. And they've been longtime supporters and listeners and they participated in various podcast and we got to talk shop and they were making fun of me of the different expressions I use on this podcast. And so they brought out the heavy guns of things that I say over and over again. And so apparently I say that's a wrap all the time, which I guess is true, but it's my own sort of little trademark. So Shawn and Anita you got quite a laugh out of that, but I'm gonna keep doing it. So I hope you enjoyed that rerelease of that episode. That was one of my more popular episodes and for those who haven't listened I hope you enjoyed it. Definitely reach out to Linda she's very accessible well as accessible as a busy professor can be thanks again to Linda for coming on the podcast even if it was a rerelease. Linda is doing some amazing work. I think we assume adaptation is happening in a just an equitable way. It is not people like Linda are working with practitioners to come up with equitable ways to adapt to climate change. I highly recommend you check out my show notes and dig into the amazing work Linda is doing. Also a reminder check out the show notes for that Patel innovations and climate resilience conference in Columbus, Ohio, march 28 to march 30. And that's 2023 Submit an abstract links are in my show notes. So what's your adaptation story? Do people that you engage with understand what is climate adaptation? Are you finding that webinars and white papers really aren't resonating ways that promote your work? Well consider telling your story in a podcast. If you're interested in highlighting your adaptation story, consider sponsoring a whole episode of American apps sponsoring a podcast allows you to focus on the work you're doing and sharing with climate professionals from around the world. I go on location record the sponsored podcast which allows you a wider diversity of guests to participate, you will work with me to identify experts that represent the amazing work you're doing. Some of my partners in the process have been Natural Resources Defense Council, University of Pennsylvania, Wharton, World Wildlife Fund, UCLA, Harvard and some corporate clients, it's a chance to share your story with all my listeners who represent the most influential people in the adaptation space. I assure you that's the case. After going to the forum last week, I got to meet a lot of my listeners that did I didn't even know were listeners. And it's amazing all the different things that they're doing. So most projects have

communications written into them. Consider budgeting and podcast, podcasts have a long shelf life, that's really important point to make here. They're very evergreen, at least the ones I do much more so than a white paper or conference presentation. If you work in a foundation, maybe you want to highlight the adaptation and resilience work of your foundation or the grantees your funding. There is no better platform than this podcast to get the word out on adaptation to some of the most influential and active adaptation professionals in the world. And if you're interested having me speak at a public or corporate event, please reach out folks I speak a lot and you will enjoy it. I've been doing some keynote presentations and there's a lot of fun. I share stories from the podcasts and my own extensive experiences doing adaptation. I will talk about adaptation in ways that will motivate you and inspire you I'm a great speaker bring lots of humor and the work that is going on out there around adaptation I will make it resonate for your audience you can contact me at the website AmericaDaps.org As for my regular listeners podcast rely on word of mouth please take a moment and plug America adapts on your favorite social media feeds. Please tweet out at me or share with me on Facebook or LinkedIn. LinkedIn is actually really good. Doing a personal plug on a favorite episode is fantastic. So always good for new exposures to your networks. And on that note, I love hearing from you. I mean it just say hi, I just got to say hi to a lot of people in Baltimore. If you have an idea for guests, let me know seriously, it's a highlight of my week hearing from you. I've already had some people from the forum email me with some ideas on potential future episodes. I'm at AmericaDaps@gmail.com. Okay, adapters. And this one is for you, Shawn and Anita, keep up the great work. I'll see you next time.