Susan Crawford Charleston

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SPEAKERS

Susan Crawford, Doug Parsons

D Doug Parsons 00:00

Hi everyone this is America adapts the climate change podcast Hey adapters welcome back to another exciting episode. Joining me is Susan Crawford. Susan is a law professor at Harvard Law School focusing on climate adaptation and public leadership. Susan has a new book out Charleston race water in the coming storm. The book explores the intersection of race and climate change adaptation in Charleston's infrastructure planning, highlighting the challenges faced by marginalized communities. The racial history of Charleston plays a critical part of her book. We also discussed the city's reliance on tourism, the disparities in planning and federal funding and the importance of community engagement. We get introduced concepts like raging politeness and benevolent paternalism. This was a fascinating discussion covering controversial ground focusing on one of the cities on the frontline of climate change. What happens in Charleston will be closely watched by many other cities starting their own adaptation journeys. I hope you enjoy this riveting conversation. Okay, upcoming episodes. I'm traveling to St. Louis, Missouri to cover the US Department of Defense's climate resilience workshop DoD invited me to cover the event and I'm looking forward to sharing what that federal agency is doing in the adaptation sector. Also, I'm working with the Natural Resources Defense Council on bio programs related to flooding, we'll hear from experts but also residents who went through the bio process let's just say for some it was not a pleasant experience. Great stuff on the way. Okay, let's join Susan Crawford and take a journey down south to Charleston, South Carolina. Hey, adapters, welcome back to a very exciting episode. Joining me is Susan Crawford. Susan is the John A Riley, Clinical Professor of Law at Harvard Law School where she teaches courses about climate adaptation and public leadership. She's written a new book Charleston, raise water in the coming storm. Hi, Susan. Welcome to the podcast.

S Susan Crawford 01:51

Hey, Doug. It's great to be here.

D Doug Parsons 01:53

I have been spending a lot of time on your books. I'm very excited to talk about it. But let's get some of the basics here. I've mentioned some of the things you teach at Harvard. But can you expand on that? What are you doing there at Harvard?

S Susan Crawford 02:02

Well, you know, you've had a couple of law professors on recently who have come at this from different directions. Mark Nevitt, with his wonderful background in the Navy is a real planner, and Madison Condon background as an engineer, my background is in internet infrastructure. So I came at this from a background of knowing a lot about the line between public and private planning in the United States and where that leaves populations. And at Harvard for several years, I had been teaching courses about city uses of technology and about communications infrastructure. And that got me interested when I visited Charleston, in the infrastructure planning, they're going on for sea level rise. So long winded way of saying I'm another law professor with a different kind of background, also very interested in a political planning for the future.

D Doug Parsons 02:51

So you'd mentioned a little bit about your background before you got to Harvard. But could you expand on that you worked in the Obama administration? What were you doing there?

S Susan Crawford 02:59

I did, I was special assistant for science, technology and innovation policy. That's a staff position of a National Economic Council. And at the time, the country was heading into an economic abyss, and I was focused on how tech policy plays or doesn't play into the choices made by the country.

D Doug Parsons 03:17

I don't suppose you happen to cross paths with Alice hill when she was I know she was on the national security, but we were crossing paths at all.

S Susan Crawford 03:23

I didn't cross paths with a thin but I've been crossing paths with her a lot in Washington recently. And she's just terrific.

D Doug Parsons 03:28

Yeah, she's been on quite a bit. So I always enjoy having her on. She has a very interesting history. So let's jump into this book. It's getting attention. And when it first came across my radar, I'm like, I get a lot of book offer. Like you don't want to come talk to my author. And I'm

just like, Oh God, no, this and if it's not directly related, but then I was poking through and I'm just like, wait a sec, this is right up my alley looks really interesting. And of course, you as the author who wrote it, I'm like, this could be a really interesting conversation. So here we are. I thought the best way to do this because you touch upon race and climate change this to non controversial subjects. But first off, let's just ground people in the basics, even though I think we all assume people know what Charleston is. Can you just give us a little bit of background about Charleston obviously don't go into too much detail, but I want to give people can have a flavor. What is the city?

S Susan Crawford 04:14

Well, that the Charleston that tourists visit is largely the historic Peninsula that was settled in the late 17th century, and built 60% of it overfill over the last few decades. Charleston also sprawled, expanded its suburbs over marshy areas to the east and west of that historic Peninsula. Today, it's a metro area of about 800,000 people, many of whom live at 10 feet above sea level or less. And there's very little ground in the Charleston Metro that is 20 feet or higher above sea level. So it's very, very low and much of the residential area was built overfill

D Doug Parsons 04:50

Yeah, that was really interesting part about the book when you were really describing that early history I'm in the interest it's landfill is a lot of what Charleston is and I think it's an issue. There's a have an issue of smells even to this day, right? Because it's just been filling in things for a long time.

S Susan Crawford 05:05

Look, it was madness to have a city there in the first place. And the people who funded that first expedition begged the explorers to move 30 miles inland to a safer place. But they were just determined to live right on the ocean. This is the same story for New York City and for Boston, probably wiser people would have built inland in the first place. But as it is, these places are profoundly threatened by sea level rise,

D Doug Parsons 05:27

we got a little bit of the history of Charleston. Now let's talk a bit about rising sea levels ground us in some of the fundamentals there. And then just about flooding in general, it's dealing with a lot of flooding now. And obviously, they're worried about a lot more flooding in the future. I think there's just flooding issues. Even if there wasn't sea level rise projected or happening. It's just an area that gets flooded a lot, right.

S Susan Crawford 05:46

It's an all hazard area, the ground waters really shallow, just a few feet below the surface. So that's rising when they get rainstorms. Because there's been so much development, that water just sits around and doesn't have a place to go. They're always threatened by hurricanes this

just sits around and doesn't have a place to go. They're always threatened by hurricanes this past weekend, every day. So a high tide flooding on the peninsula. And in 2019, they had 89 days of high tide flooding that affected traffic and moving around the city of Charleston. So they're constantly seeing the effects of just daily flooding in the city. And they're facing a lot more as the decades roll by.

D Doug Parsons 06:21

And it was interesting how you describe the city I've been you know, I was trying to think I've obviously been to Charleston before I don't know if I've been twice lovely city but I mean, you make a point in the book. It's like I'm Exhibit A of this why Charleston's popular these tourists are coming from out of town they want to eat in those fancy restaurants and go through the historic areas. Can you tell us a little bit more about maybe the economy there? I mean, is it primarily tourism,

S Susan Crawford 06:44

I'd say the Charleston economy is based on tourism and real estate. So about 7 million tourists visit every year, people come for those wonderful restaurants and many come also to go out to the barrier islands and see the swamp grass and the water sweeping in. It's a lovely place over the last 40 years, that entire tourist economy was developed quite intentionally by former mayor Riley who brought in cultural events and lots of restaurants and made it a mecca particularly for white tourists to visit. So its economy is heavily based on sort of pleasure, I would say and many people have moved there from the northeast and other regions, seeking that gentle quality of life that they perceive from the tourist advertisements.

D Doug Parsons 07:29

I'm sold when I went there, I had a great time and it had to be but I'm not sitting there knowing the history and it was really interesting. Alright, let's pivot a little bit here. Let's talk about the history of slavery. And then we're going to really talk about dig into the issues of race in Charleston. But Charleston had a unique role in the slave trade, right?

S Susan Crawford 07:45

Sure. alone among the English founded colonies in the United States, enslaved people were part of the population of Charleston from the beginning. And there are many periods in Charleston's history where there were more enslaved people, and also free black people living there. And then white people by far, it was the place where at least 40% of the enslaved people brought forcibly to America first step short, and it was a center of the domestic slave trade after slavery was outlawed, or the transatlantic slave trade was outlawed in 1808. It has the hidden pain of a tourist area, you can't see the vestiges of slavery while you're there. But if you know anything about the history of this country, the fact that Charleston was the place where the first state seceded from the Union and launched the Civil War. It was the place where hundreds of 1000s of slaves were brought through into this country and its entire economy, dependent on large plantations were that were built on the backs of enslaved people for most

of its history. Today, it is this has a sort of a historical and Asiatic quality. It's a place of southern hospitality, I think that's the way white people perceive it. And although there are still black residents of Charleston, they've been largely priced off the peninsula, which about 40, or 50 years ago was 75, or 80%. Black and is now mostly white, though,

D Doug Parsons 09:14

I thought was really interesting part of the book, when you're talking about the race, that there's this nuance that even people in Charleston, like, I want to go between African American and black, and I'm going to try to be consistent, but that there's this genteel nature that even the people of Charleston need this would describe him describing the book, I obviously don't have my own experience, that we're going to handle things as sort of this family and we're not going to look back on these really negative things. It's not going to influence and there won't be this overreaction. And I guess, please describe if I'm getting that completely wrong, but it that plays into how everyone's going to respond to climate change, right.

S Susan Crawford 09:50

I was fortunate and working on this book to be afforded a lot of time with black residents of Charleston who were very generous with their time and talk to me about what it's like to be a black president of Charleston Reverend Darby is a main character in this book. And he says that Charleston is a place of raging politeness that there's a benevolent, benevolent paternalistic sort of we know what what's best for you people attitude of the local government there, I perceive it as an outsider as a kind of blindness and some amount of complacency on the part of leading white citizens who just believe that they have a peaceful forgiving society in which they're living. But if you spend a lot of time talking to black residents, they will say in their own voices, that they experience racism or second class treatment, all the time living there that it feels very strange to live there as a black resident that plays out when we're talking about responding to adapting to climate change, as it does in cities around the world because of historic patterns that have excluded poor areas, areas, marginalized populations from investment in flood protection, and often excluded them from property ownership. In many ways, the effects of the ravages of climate change will be felt disproportionately by marginalized populations, people of color, lower income people, and that's true in Charleston as it is around the globe.

D Doug Parsons 11:18

My own history, you know, I'm from Florida, which a lot of people don't consider the real south but I lived in Georgia for five years and this raging politeness I appreciate because I had friends you know, I at the time, I'd get went to church and and a churchgoer now, but people would say with a straight face like southerners, they're white Southerners, the war of Northern aggression, and em Of course, it was a tongue in cheek and happen like they they're still this kind of semi resentment about North and I get it I when I was reading your book, I'm like the seething on my part, because it's just this notion of, oh, well, we're just gonna handle this politely. And you go through a lot of history where the white community fought tooth and nail

against even little like taking away the statue of Calhoun that you get you talk about that here, which was fascinating. I mean, that should have been a no brainer. And they fought that until, like the bitter end. And that, yeah, I you can kind of see through that.

S Susan Crawford 12:09

People do things for good reasons. And often, statues are kept in place, because the people in power belief that they don't have a legal authority to move them or that they're more representations of legacy and history. But if you're a black resident of Charleston, looking up at that spooky former statue of Calhoun, you saw a threat, an implied threat, really, you know, the totemic representation of white supremacy. It turned out in the end that the city of Charleston did have the legal authority to take down that statue, and it came down in June 2020. The current mayor, Mayor tecklenburg, feels very warmly towards the black residents of Charleston cares about them a great deal and often visits black churches and pays attention. Nonetheless, there is ongoing a feeling among the black residents of that city, that they will always be left out of consultations, and in the end will be treated badly by whatever decisions get made.

D Doug Parsons 13:09

And we're gonna get to that I want to get back to that, but I guess still get a bit more of this background. And you talked about a little bit what motivated you to write this book. And so we have race, and we have climate change. Really, what were some of those key moments, you're like, Okay, you're just writing a book is a big deal.

S Susan Crawford 13:23

I got into this book, because I came down to Charleston to interview former mayor Riley. He'd been America's favorite mayor. He'd stepped down from office after 40 years, and I was there actually to talk about Internet access infrastructure asked him about fiber. I got a tip from a local journalist that it would be interesting to ask him about another kind of infrastructure. And that's water. I said water. Okay, I'll ask him. And I asked Mayor Riley about the water any sort of clammed up, he said, it'll be very expensive. That's about all he said to me about it. And it seemed to be that there was a story here some quest I wasn't sure what it was. The city was embarking soon after that on a series of meetings with Dutch landscape architects that Dutch dialogues, and I got very interested in that. And I was lucky enough to be in on those meetings during the summer of 2019. I had really exclusive access to a lot of the people who were coming from the Netherlands to talk to Charleston, they were the various highest quality landscape architects and I began reporting on the story as one of real local government triumph. I thought that the city of Charleston was going to be able to act on the recommendations coming out from those landscape architects and make transformative changes to their city that would anticipate the future and protect residents. As the reporting went on. I got interested in the racial questions that were being brought to my attention. And I noticed in the September 2019 meeting held to announce the results of the Dutch dialogues, there were very few black people Pull in attendance. And I just was curious about that. So I started asking around, I guess, Doug, what I'm telling you is that this has been quite a journey for me it started at place a and ended up at place D. And I don't wish to condemn the City of Charleston, I think that they are doing the best they can, given the complete misfit of programs

and funding and everything else that you so amply discuss on this podcast in trying to address sea level rise. But nonetheless, they have a long way to go, as does the rest of the East Coast, in facing the phase change that's really coming in the next few decades.

D Doug Parsons 15:39

Okay, we're gonna talk a bit more about what the adequate planning are not adequate planning of Charleston. And I guess just a little bit of a shout out to Charleston when I was reading your book, and just, even these Dutch dialogues, I did a lot of adaptation planning in the state of Florida. And we were doing some of the first of its kind and you know, Miami has been doing stuff for a while. But if like, this is South Carolina, and this is a southern state, and the fact that they even had Dutch dialogues, I'm like, you've been dealing with the recommendation, their states where they're not even allowed to talk about it. It was fascinating to see that Charleston had done and engage that much. And you know, they do I'd mentioned, we talked earlier about Dale, Moore's chief resilience officer, I mean, there should be a chief resilience officer in every coastal town in the southeast. And that's certainly not the case. And so just, I guess, a shout out in the sense that they were setting the pieces in place, but I guess when it comes looking under the hood, what's going on there? There's a lot more to be done. And I guess that's how I want to pivot with you. Now. It's just can you tell us a bit about some of the adaptation planning that they're doing based on what your own research into it is, like what so people can visualize when people think adaptation plan, they don't necessarily know what that means?

S Susan Crawford 16:45

Well, let's start with a very positive moves that Charles was taking, they have outlawed building on Phil, which is a big step. You know, when you build on dirt that you've trucked in, the neighbors of your development will be flooded. So they've said that can't happen. And the longer they are working towards planning elevation based zoning, changing the nature of new developments that can be built on the very lowest land in Charleston, they haven't yet adopted that set of zoning regulations, but they're moving that way. And that's more than many other cities have done in America. Nonetheless, they're placing a lot of faith in a plan that they're working on with the Army Corps of Engineers on a wall to be built around the Charleston peninsula, which would protect the highest value assets in the city, that hospital district, the College of Charleston, other valuable pieces of property that are on that historic Peninsula, not to mention the tourist economy that depends on it. And that wall, like the wall that was rejected by Miami a couple of years ago, is planned to a pretty low level of survival and also won't protect 90% of the citizens of Charleston is really only for that small peninsula and won't do much to guard against high tide flooding, or the groundwater rising, or the rain pooling or all the other things that Charleston faces. It's designed to deal with storm surge for the catastrophic effects caused by hurricanes. It's built to a level there's the Army Corps, assuming 14 to 18 feet of sea level rise over the next few decades. 1418 inches, I'm sorry, sea level rise over the next few decades. And so the City of Charleston has the same assumption in its planning for the wall. The problem with that is that it's likely that the wall will be overtopped by storms within a matter of decades. It certainly won't, you know, last 100 years. And there's a real risk that it represents a form of Mount adaptation. That is it'll create a kind of moral hazard that people will feel more comfortable on the peninsula when that wall was built. And so we'll continue developing and we'll sort of build back up to the level of risks that would have existed

absent the walls creation. So I focus a good deal in the book on the planning for the wall. Charleston is also doubling down on development planned on the peninsula. Tonight, there's a meeting about the union pier development, which would be built on the east side of the peninsula and would have 1200 condos, 600 new hotel rooms and half a million square feet of commercial space. All of this in an area that in the 18th century was squarely in the Cooper River. So lots of things going on in Charleston.

D Doug Parsons 19:32

And you have a lot of great maps and the old legs, sketches of the city. It's really good in the book and helps you visualize, but I couldn't quite visualize the wall. And I know Miami famously was going to do how high is it? I'm trying to think like, is it like 50 feet off shore is 10 feet, and it would be just an aesthetic disaster, right? I mean, just the people would be like, Okay, it's protecting us, but we're looking at a wall. Why are we even living in Charles? I mean, how does it work that way? I'm trying to visualize it.

S Susan Crawford 20:00

Well, a few points on that the city is saying that they will work with the Army Corps to make it an aesthetically pleasing wall as currently planned in order to pencil out in terms of his cost benefit analysis, the wall would be built directly on land on the peninsula, walling it in, it would be eight feet tall and mostly made of concrete, it would have a lot of gates that would have to be opened and closed, to permit traffic to come in. And those gates would, of course have to be maintained by the city forever, which is enormously expensive. But the city is saying, Look, just work with us, we're going to try to make sure that the wall looks nice. It's hard to tell what the walls ultimate appearance will be as planned. It's just a concrete wall, eight feet tall.

D Doug Parsons 20:47

Okay, that's great. That's very ugly, but I just held I was thinking like 50 feet out in the water, they're building a wall or something like that. Now, one of the points you make to and again, I had to keep rereading, and I wasn't quite understanding it. And, again, to Charleston's credit, that they're all these big projects. And they're like, well, the responsible thing would be to do X, but it's going to cost a ton of money. So the Feds need to be a partner. So even if they're paying a percentage 2030 40% It's still too much money based on the size of the city and the budget that they have. But there's this notion that if a hurricane hits the city, then they get access to a lot more money to maybe do some of these projects that they'd like to do, but they currently can't afford. Did I get that right?

S Susan Crawford 21:27

That's about right. Look, we have more than 30 agencies at the federal level focused on disaster relief, to some extent, and very, very little money coming in for planning ahead of time, something like just 12% of FEMA funds are spent on preventative measures, the City of Charleston is doing the best it can to attract federal money in the form of this Army Corps project and is assuming at some point that it's planning and it's actually said that it's likely that

the money will come in after a disaster to build the wall. Because we do it that way. The United States, we often have these off budget appropriations that are made in the wake of a disaster. Well, my big point in this book is that we need a dedicated federal agency a dedicated source of funding, actual plan that looks forward decades into the future and sets priorities at the federal level for how we're going to spend money, rather than constantly reacting to disasters. Mark never its fundamental point is that the legal structures don't fit and he's right. Madison Condon's point is that the data we're relying on might not always be reliable. My point is that absent federal leadership, every city will be left on its own the way Charleston is, at this point, just doing its best to cobble together a plan. In the face of really uncanny threat coming in a matter of decades, not centuries,

D Doug Parsons 22:52

you had the opportunity to talk to some of the black communities there in Charleston. And I'm curious that how are some of them doing? I mean, not every neighborhoods, the same and adaptation plan, you might have a neighborhood that's gained to do more, but they're not necessarily doing it because they don't have funding? How did that work? Is there a particular area that they're like, Wow, they're on this they're doing it? Or is it just they're mobilizing the people better? Can you give us some examples

S Susan Crawford 23:13

from what I could tell the civil society infrastructure for black residents of Charleston is relatively thin, the NAACP is active there. There's a group trying to organize the people who live in public housing, the cash and green housing, residents, but there is very little pushback against or in connection with the Charleston city's planning. The city attempts outreach to its black residents. But that outreach is pretty thin itself, when in talking to the people I connected with in connection with this book, several of whom are real leaders in the city of Charleston, their sense was that there isn't of substantial middle class in Charleston, in among the black residents that is gathering together and agitating for change X or Y, that there's more a sense that not enough is happening. And that in the end, the black residents will get the short end of the stick.

D Doug Parsons 24:11

And on the flip side, let's say some of these wealthier white neighborhoods, I find that okay, low income neighborhoods, they're not really getting exposed and not necessarily doing a lot for a lot of good reasons. The other wealthier neighbors aren't necessarily they're not aware, do you feel like in Charleston, they're unique because a lot of times with adaptation planning, it's still in the realm of in the know planners and government officials. And it's not this groundswell of support, even from the wealthier neighborhoods or the organized or these wealthier areas where it hasn't they just kind of going along with what the city's saying.

S Susan Crawford 24:40

There's quite a lot of organization right now in connection with this union pier development plan, that cities already received hundreds of comments when usually they get a dozen or so

plan, that cities already received hundreds of comments which usually they get a dozen or so about the plan to do this massive development on the east side of the peninsula. The residents of the barrier islands are quite aware of the risks they face. There are a lot of conservationists who are interested in what can happen to the grand old houses on the battery. So I'd say the wealthier residents of Charleston are pretty well organized and interested about adaptation planning, the risks, I think, are known. And yet, at the same time, and I know, Doug, this is hard to understand, there's a certain amount of complacency, you know, Charleston has always flooded. That's what life is like there. So people are sort of used to it. What I've tried to point out in the book is that it would make sense to look decades ahead, and to be planning as a region, for a strategic relocation of people on a community wide basis, to high dry connected places, dozens of miles inland from this place, Charleston itself is really a concentration of risk where it is right now,

D Doug Parsons 25:53

this is a struggle, I think, for a lot of coastal areas that and I think you mentioned this in the book is that a lot of the people, the owners of the homes, they might not even be residents of Charleston, they might just come in for a little bit of the year, or they're renting it out for Airbnb. And when you have people that not to say that they don't care, but they have less interest in sort of long term management of the area in Florida is notorious for that. I mean, is that a component of the people there? Oh,

S Susan Crawford 26:17

definitely. I have had many long term Charlestonians tell me that the people living on the peninsula now and those big houses on the battery are not for Charleston, they're largely Northeastern residents who they are very infrequently. There's not much sense of community down in those beautiful houses, there aren't kids running around in the streets, there wouldn't way there would have been 50 years ago, or a lot of non resident second home owners there that said in those suburbs outside Charleston, there are a lot of regular people whose entire wealth is in their homes, and they stand to lose a lot as the waters rise as well. So it's a complex story. It's not black and white. It's not all dictated by race, a lot of it is dictated by means what is likely to happen in Charleston, will be an example of the Matthieu principle inaction, sort of the rich get richer and the poor are left behind. Unless something quite dramatic and transformative happens at the national level. We will see a lot of relocation from Charleston areas like it up and down the East Coast. But it will be haphazard, ad hoc, unplanned, and wealthier people will be very safe and go off to other houses, and people whose entire wealth is in their homes or who have no particular means will be stuck and will be miserable.

27:42

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D Doug Parsons 28:17

All right, I think I already know the answer to this, but you'd mentioned there's some outreach to the black communities. But is there any sense of like an all hands on deck community and you hear me say this on the podcast? Like a really strategic communication plan around adaptation? Do you feel the City of Charleston? Alright, folks prepare, you know, in Miami has they put those poles in the water? And so this is what five feet of sea level in just not at public meetings, but all hands on deck. This is what's happening? Is there anything like that going on?

S Susan Crawford 28:46

Well, certainly, the mayor will talk about water all the time. And it is the very top of the list of this of the city's priorities. And it is the number one threat the city will say at the same time. They don't necessarily want tourists to be spooked by talking about, you know, catastrophizing would not be popular in Charleston at the local government level. As you know, it's not popular for anywhere up and down the coast to talk about to put all the risks on the table that are facing that locality. Like all cities in America, they depend on property tax to keep their city rolling. And they need to keep growing in order to keep paying for police services and everything else the city provides. So they're stuck in that spiral that Jessie can describe so eloquently, that they need to choose growth over putting all the risks on the table.

D Doug Parsons 29:41

So this is where it gets complex. Did you mention that the area's probably going to be most impacted these, you know, black communities and you even talk to some people here and let's just say the city does the right thing across the board. Here's all the funding you could possibly need. Here's outreach and awareness. That doesn't mean people are We're going to move out of harm's way. And I think you use this example of the Queen and I'm blanking on her name of the Gullah Geechee community. And if people aren't familiar, it's just African American historic. They've lived in the coast of Georgia coast of South Carolina, she had an interesting quote of just, they've been lied to, and convinced to leave their land for a variety of reasons. And all of a sudden, developers will come in and take advantage of it. So there's a lot of skepticisms saying, okay, even the notion of like managed retreat, which I want to get into more a little bit later, but she was basically implying No, we're not going to move is that accurate description of what she was kind of saying? Yeah, she

S Susan Crawford 30:36

said, Unless you told me that the people on Hilton Head and the people in Cuba are moving, we're not going anywhere. Because, look, we have a horrible history as a country, when it comes to relocating populations, we're awful at it. And often, it's done in order to move in some wealthier population to allow for increased development that happened after Sandy, land was cleared, and then made available for rebuilding by what ended up being much richer populations. What I'm calling for in this book is a much more thoughtful, holistic, forward looking set of planning arrangements coming from the federal level that encourages long

conversations with communities about voluntary community wide relocation efforts. This is not easy. It's just the better solution than the worst, which is completely haphazard, Mad Max, like relocation, where everybody's in it for themselves, we have two big myths about climate in America. One is that it's all changing someday in the future, but not right now. And the other is that it's all a matter of your individual responsibility. And neither one of those myths is true, things are actually changing rapidly now. And we shouldn't leave it to individuals to try to assess whether the risk is worth it or not to stay rather, we should help them through wraparound services, make a voluntary decision to leave, because we support, pay for encourage help whole communities to retain their culture, and then decommission the land that's left behind. One way of doing this would be to create a series of land trusts for property owners, you donate your land to the trust, you get a break for property tax, you can live there for your lifetime. In exchange, the land trust will decommission the infrastructure left behind as the waters rise, all of this is difficult, and it will require a lot more planning capacity that we seem to have right now.

D Doug Parsons 32:41

Yes. My initial reaction to this that is like, again, I agree, I hope that happens. I also my personal view is it's a fantasy at the moment, it's not not saying you're fit, but it's just I think of how our own history of doing these kinds of things. And and I think there's this tension to see you're talking to a community that you want them to move, and you're talking about doing it in a very thoughtful way. But there's this other driving thing too, is that, okay, we want you to move, we want you to go places where there's jobs and everything. But there's also this reality that you're you're, you're putting yourself in danger if you stay here. And those are two potentially different motivators for someone who's trying to sue the federal government that wants to help. It's like we're trying to force evacuation from a hurricane zone. You see what I'm getting at, though, it's just this notion of okay, we can a very thoughtful way try to get ahead of this. But at the same time, there's this dire situation coming your way, if you don't move that in itself has its own motivations.

S Susan Crawford 33:39

Look, very few countries are even able to talk about this. Right now, the Netherlands has retreat as one of its four modes of recovering from sea level rise. They're the only country I'm aware of that has a plan for two meters of sea level rise by the end of the century, that does involve relocation, if necessary. It's a very delicate subject, but they know that it takes decades to plan. So it would have been better to start planning a while ago, but the second best time is now. And I think that if we have clear communication about the risks facing these areas, and clear way of saying, you're not alone, we are all going to face this together. We are capable of carrying out this kind of planning initiative, it will probably take a series of disasters up and down the coast, separated by very little time, or the bankruptcy of a few coastal cities to force this planning into reality. But my hope is that we'll get there sooner rather than later.

D Doug Parsons 34:43

I lost track because there's just so much coverage there. But with the you know, the housing market in Charleston, which is still just ridiculous. A lot of these black communities have been priced out of historic neighborhoods, where are they going? Are they going actually to higher

ground? Is it a net positive in that Respect, not that I'm encouraging that approach. But where do they go?

S Susan Crawford 35:03

Well, there's been a tremendous amount of relocation displacement of black residents of Charleston to the adjacent city of North Charleston, which is on higher ground. It also has the highest rate of eviction in the nation. We learned not too long ago, it North Charleston right now is beginning to experience explosive gentrification, as more people are moving in to that area, because it is on higher ground, and is relatively close to the city of Charleston. So their black residents are being displaced further and further afield. I suppose you could say that that's better for their health, welfare and well being but it means that residents become farther and farther away from jobs commute farther have lower standards of living, where they end up. And I guess the message of the book is that what hasn't happened through gentrification is likely to happen through climate change. And wouldn't it be better if there was a good deal more thoughtfulness about how these processes rollout

D Doug Parsons 36:02

to cynical thought, I'm having just this notion of like, well, we're getting these people out of harm's way by pricing them out of harm's way. Oh, that's just cynical. But that's actually what's happening in Charleston. And I'm sure it's happening. You know, Jesse Keaton's work in Miami, some of the things that are going on in that area. Oh, that's just so cynical. And just the lack of planning right now that I think it's gonna be this passive adaptation that happens in a lot of coastal areas. Oh, Doug, don't be so cynical. That's terrible.

S Susan Crawford 36:30

Yeah, I mean, the reality is, as Jesse Keenan points out, that left to its own devices, the private market is adapting, in a sense for us, they're building in luxury areas inland, they know they see the data, they see the risks, and we should have a sense of either moral horror or economic wastefulness, that kind of adaptation planning going forward. This is a place where the public sector should have the leading role should be thinking ahead about how to help people lead thriving healthy lives away from places of enormous risk. We're not doing that planning at the moment. And that is mostly because of a failure of leadership. And also, because as you've documented, we have such trust in private property as the dominant mode of thinking about what our democracy is.

D Doug Parsons 37:24

So you'd mentioned buyouts, which are like a tactic or what you think of managed retreat. If people aren't familiar with managed treat, I've covered it before, but I need to cover it again. And there's a big conference coming up in New York, I think you're going to be speaking out, I think you're going to read from your book. It's really an amazing thing. And sometimes I think it's too academic, just because we want people thinking about it. But it's just like that stuff needs to get out into the practitioners hands. But this notion of buyouts and I think that's a big

part of what you're talking about in the book. And I think the city of Charleston would say, even if you have a successful program, the idea of buying out even just a small population is just too expensive. What would you say to that? Like, that's, you know, you've seen some of those examples from Louisiana. It's like a million dollars. Family, or Simon Says something ridiculous to move a small population. How does a city even think about that, even if they want to do the right thing, here's the perfectly designed buyout program, that's part of your strategic management treat, and they have no chance to even come close to funding it.

S Susan Crawford 38:20

You know, you're right, I don't think city should have to do this by themselves. This is why I'm so interested in federal leadership and federal funding. And right now our processes are unbelievably miserably painfully slow. It takes five to eight years, a lot of people give up because they can't wait for the buyout, and they just sell the property, and then it gets rebuilt again, which is, you know, a disaster and all all kinds of ways. So we need to scale up programs, make them much better funded, make them much easier to access and have them on a community wide basis rather than matter of individual properties, and then have a plan for what happens to the land that's left behind. I agree, I don't think city should have to be leading in this area. And we need much more federal leadership.

D Doug Parsons 39:05

Again, when these I agree, but I do think of being in the city's positions like, Okay, I'm gonna spend $100,000 per family and I'm just throwing that number out to move someone off of my tax rolls, guys, that must be just painful for them to contemplate, you know, in an effective program. So, really, the only solution is, alright, here's some big pots of money from the federal government to like, let's say there's a, they're still gonna be accessing tax revenue will give you if you move a family, we're still gonna give you five to 10 years of like the sort of diminishing tax. There's creative ways that economists can kind of get around this. It's just again, that sort of thoughtfulness that isn't happening. Exactly.

S Susan Crawford 39:43

Every system is perversely pointing in the wrong direction. we incentivize people to live by the coast. We rely on property tax to fund city services, but we have all kinds of strange programs that don't fit together and put a city A very awkward position of having to double down on growth just to keep his operations going. And at the same time, it would make much more sense not to have people continuing to live in floodplains that we know are becoming increasingly risky, or the science is very strong and getting stronger. And we should spend money on things that we care about, rather than now adaptation in the form of billions and billions of dollars. armoring small portions of the coast while leaving everybody else behind.

D Doug Parsons 40:28

You know, my brief conversation with Dell Morris's chief resilience officer in Charleston, I think I had mentioned earlier, I'm very impressed with a lot of the things that Charleston has done, are they doing all the responsible things in regards to like, okay, we're looking at these datasets

they doing all the responsible things in regards to like, okay, we're looking at these datasets from NOAA about sea level rise, they're trying to be as thoughtful as they can with Waterman, like, you mentioned that development ordinance, hopefully, that's going to be finalized. And these are all steps that you can take. But the thing that I really just briefly mentioned to him as if the city was being really responsible, they wouldn't be encouraging additional growth, right? It would be like, Okay, we're gonna take care of the people of Charleston today. And we're gonna do all these things. And we expect him to live here for the next 200 years. At the same time, they are doing everything they can to encourage growth. And so I would argue, and I think I was trying to make the point to Dale, this, they're being very irresponsible, I mean, who doesn't want to encourage growth, I get it. But it's hard to give you much credit when you're just okay, we have people that are in a danger zone. And now we're just waving the flag saying, alright, we want more of you here. And we're not quite sure how we're gonna manage for you to

S Susan Crawford 41:33

look, I chose Charleston, because it has been a magnet for growth has been one of the quickest growing areas of the United States. And it is so attractive, those millions of visitors. So it's a good vessel for telling the story. But, you know, we don't need to single Charleston out every city is developing is continuing to grow. In the face of phase change in climate risk, which is coming, NOAA says that flooding is going to be five to 10 times greater beginning in 2050. Up and down the East Coast. NOAA says that by 2070, there will be three feet of sea level rise, EPA says by 2070, we'll see more than that. And EPA says six more than six feet. By the end of the century, FEMA uses these very high levels of sea level rise in its own planning for communities, Charleston, just happens to have seized on a particular parameter for the wall, which is 2050 and 14 to 18 inches, which is indeed a NOAA number. But what I'm trying to point out is that it has no particular incentive to look further out into the future. And nobody up and down the coast is doing that. And we're sort of lolling citizens into a sense that somebody's doing something seems to be some talk about, you know, adaptation. And so as a result, we don't need to have any longers frame worries about whether it'll make sense to live where we do on the east coast, the United States. And I'm saying that it is time to begin that many decades long planning process that will be required, because of what we know is coming to help people live in different places in the United States.

D Doug Parsons 43:14

Yeah, I tried to make a point to in Florida. I mean, you see building cranes in Miami to this day, and quite honestly, I'm from Florida, I don't know where they're building, that whole area was built out. But to me, the responsible thing would be for the mayor to say, Stop moving to Miami. If you live here, we'll take care of you. But we don't need anybody else. And I know that's not going to be a popular tagline for a city. But that to me is like if someone's saying they're doing responsible adaptation planning, the idea of well, we're building in for 40% populated that, that doesn't seem because everyone's sort of complaining about the uncertainty with models about projections, well, then maybe they need to build in a bit more responsibly. They think they can just compensate for all this additional growth and population to which, yeah, they can't have it both ways. So

S Susan Crawford 43:58

yeah, and it's, again, it's not their fault, because they have to rely on property tax, they are stuck with this way of acting. And so it's not just Charleston, it's everybody. We need to rethink how we fund cities. And if it's always rely on our growth, we will get exactly this kind of emphasis on development. Just because we can build in floodplains doesn't mean we should and those Dutch landscape and architects who came in 2019 they were horrified that America allows people to build in already existing floodplains. Now even going on to mention the risks that are coming as the seas rise.

D Doug Parsons 44:36

Yeah, I'm reading your book about race in Charleston and just like, a lot of bad behavior by the white population there for the longest time. And there's going to be these coastal communities all over the place and the notion of managed retreat at scale, if we're gonna get there, we talked about oh, we'll never get of course, we're gonna get there because the oceans are rising. That's just it's going to force it upon us in a very thoughtful way or unthoughtful way and yet, we're not gonna be able to help ever In the community, and then the notion of which communities do we help? And he's just reading your book about Charleston. It just got me philosophical about. All right. If I had to pick and choose what cities to help, even though I love Charleston, I think it's a beautiful city. It's just like, Alright, does your history weigh into it? Does your efforts at planning weigh into it? And again, they're way ahead of so many other coastal cities, but I think we're gonna have a lot of those uncomfortable conversations where, okay, we don't have a $10 trillion check to help every single city in the United States along the coast to have managed retreat.

S Susan Crawford 45:31

The challenge for the adaptation community is to somehow talk about this subject in a way that isn't preachy, isn't catastrophizing, much more, the way that Mark never talks about it, that these are risks, they're known risks. We can't allow our people to live in such risky situations, because it's unsafe for everybody and cities have to maintain infrastructure at enormous expense to keep communities going, rather than thinking long term about where they should be relocating to, you know, I understand that it's unthinkable uncanny to imagine a different kind of planning framework. But I also think, ultimately, if there isn't political government intervention, we end up with just an ad hoc, unprincipled, everyone out for themselves future for the country, which can't be the right idea.

D Doug Parsons 46:24

So I want to pivot to the final part of this conversation we're gonna have and just to wrap up what we're talking about with the book, obviously, you had goals, when you wrote this book, if people had a takeaway, or if they're interested in reading this book, what were you really trying to accomplish with this,

S Susan Crawford 46:36

I want someone in the Biden administration to wake up every morning and worry about where

the dedicated funding is going to come from, who the lead agency is going to be, what the policy framework is going to be in the face of accelerating climate change, especially along the coast. That's my goal here, that would be the redemption moment for this book, is to have a change in federal policy.

D Doug Parsons 47:00

And I know some of them are listening. So pick up this book. All right, I want to pivot just as we kind of wrap up this conversation too. But a little bit about your work, your background is fascinating, but you're getting into the adaptation space in a big way. And I think that your book is a big statement of where you're going, I want to talk a little bit to as you'd listen to my recent episode with Madison Condon, and you want to talk a little bit about climate modeling what stood out for you in that

S Susan Crawford 47:23

I thought Madison Condon was terrific. And the fact that she is in conversation with all these climate scientists who are just throwing up their hands at the quality of supposedly fine grained recommendations being made by third party consultants, based on inadequate data from what the client sciences can tell, that was terrific. She's saying, we need an agreed on basis for the decisions that we make about sea level rise. Otherwise, we're making policy based on sand. And she doesn't believe that federal authorities, including Fannie Mae and Freddie Mac, are adequately aware of that. So that was just a terrific episode. I also thought that Mark Nevitt did a great nonpartisan problem solving job talking about the legal frameworks that are completely out of step with the public leadership that will be needed to move us through this phase change. That's up ahead. So two law professors both coming from different cross disciplinary backgrounds, grappling with what they see. And both noticing, as I do, that there's enormous student interest in these topics that we need to be opening the doors of law schools, to people from public health, and business school and public policy school and urban planning, and computer scientists and everybody else that's interested in this gigantic phase change at, you know, getting the best minds to think about these planning problems. That is the role of universities today. And we're all seeing it. And we're all working across boundaries,

D Doug Parsons 48:53

how you law professors all stick together, and there's your favorites, I get it. You know, I guess I have done quite a few in the last three to four months. And so but they're always fun conversations, because you guys are there to probe these ideas and really deep ways. So I enjoy talking to law professors. And it was interesting, too, about the modeling. And I think about in relation to Charleston, I, you know, I think they're using the NOAA data from 2070. I don't know, I don't know if you've dug around, but like, are they using some of these climate analytic groups? And if they are, okay, they're taking a responsible action. But the whole notion of Madison's episode is that well, what if there's a bad projection on the low end or on the high end? And does that impact their adaptation planning? And are they at fault for that for trying to do the responsible thing and again, I think that was Madison's point with that episode is just boy are we going to hold against Charleston because they went with it what you thought was a legit analytics firm. To trust

S Susan Crawford 49:42

this credit, they are using NOAA and IPCC data to the best of their abilities. They really are. The problem is that there are high risk events extremes that occur even with linear rises in sea level rise. So put another way sea level rise may be inching up no is saying that only through 2050 doesn't have high confidence in his predictions, but there are low confidence but extremely risky scenarios that they cannot rule out the point of many climate scientists when you're planning for human life, and for human well being, you have to take those extremes into account, you have to worry about things that are unlikely, you know, why would you get on an elevator if you thought it was likely to, you know, be safe nine out of 10 times? Probably not. We actually need to be planning for what's, you know, the thick tails of extremes that are coming at us in the next few decades, again, don't want to single out Charleston for particularly bad planning. But in looking at the wall plan, they really did seize on 2050 and did not talk about years after that.

D Doug Parsons 50:54

Yeah. And I certainly don't want to give the impression that I'm not going on Charles I mentioned, wow, compared to so many other communities, they are light years ahead. But this is a nice exercise of like, Okay, now let's see what you're doing here. Because expectations are only going to rise in the years ahead. Okay. What can you improve upon? Are you doing mal adaptation or adaptation? And so that these are the conversations I think we have to have? That's right. I mean, I didn't want to get back to Charleston. But I was curious about you. You're doing this pivot to adaptation. And I'm curious about that process. How does that manifest itself with you? It says, you teach adaptation with your law students and stuff, what does it look like?

S Susan Crawford 51:29

I'm offering a course called the law of climate adaptation. Many of the issues that Mark was talking about in his podcast, what should be the scope of federal or state power to rezone to help people move all that there's a lot of legal questions that come up, and really, the structures don't fit. I also do a big class for first year law students on public leadership and bring in lots of people to inspire them. I've watched more and more Harvard Law students to go into the public sector, often they are kind of funneled because of debt and other concerns into working for the private sector, particularly in the beginning of their careers. And at least opening to their minds in the first year, the idea that their careers should include at some point service in the public sector is also part of my mission. at the law school, I have been teaching a lot of courses about technology policy, and I'm pivoting away from that at this point.

D Doug Parsons 52:20

And so you're going to continue just to delve deeper into the application space. That's the goal.

S Susan Crawford 52:25

You know, it's never ending, it touches on everything. And I think it's a strength of mine, that I have always been interested in how things work, I was very interested in how fiber optic technology work, I wrote a whole book called fiber about it, and understanding the science behind sea level rise, understanding its effects on human lives. And then most importantly, thinking hard about the line between what's appropriate for the private sector to do and what's appropriate for the public sector to do. That's the through line in my career. And I've come to believe over the years that infrastructure, public works, that really is for the public sector and planning for the future of where cities are, that's really for the public sector. And then we provide a platform for the private sector, to carry out its dreams on top of those policies, but to let the private sector drive the entire conversation, as they are doing now in the adaptation space seems to be inappropriate, and ultimately short sighted.

D Doug Parsons 53:24

Now, do any of your students listen to the podcast? Oh, yeah, I

S Susan Crawford 53:27

assign podcast elements to the students.

D Doug Parsons 53:32

Harvard class assigning America dabs. Susan, I can't be sharing that with my wife tonight. I'm like, Ah, excellent. Listen, you got to take these little victories when you can. So that's fabulous. I don't know if it made the final cut. Because I know you I got a galley from you. But I didn't know in advance when you shared with me. But there was a reference in your bibliography. One of the episodes, I think the management cheat episodes did that. Did that make the final cut?

S Susan Crawford 53:56

Absolutely. That's in there. ciders. And Jesse Keenan, I met at Harvard. And I listened hard to them when they appear on your podcast. Okay, well, that's

D Doug Parsons 54:04

great. I had the PDF. I wasn't like, Oh, I wonder if I made the final cut. And I still have folks listening out there. I'd invite Susan on because I saw it there. I saw that after we had agreed to do this. Are there any conflict of interest there? Susan, you know what's coming here. My last question, if you could recommend anyone to come on the podcast, who would it be?

S Susan Crawford 54:21

I don't think you've had Jeff Peterson on Jeff Peterson from the coastal flood Resilience Project.

He is just terrific. And he's been very helpful to me. He's ex EPA, and really working on sketching out the kinds of national policies that are needed for the strategic relocation conversation to advance so I hope you can have Jeff on

D Doug Parsons 54:41

look him up. I don't know I haven't had him on and I'm just not familiar with his work. So that'd be very interesting. Susan, this was a pleasure. I love having these conversations. And congratulations on the book. Just a big accomplishment and I think hopefully driving a lot of adaptation conversations there at the local level. And thanks for coming on the podcast.

S Susan Crawford 54:58

It's an honor to be here, Doug. Thanks. for everything you do, and you're right to ask people to sponsor you, and this is a terrific podcast.

D Doug Parsons 55:04

Oh, thank you for that little plug at the end okay, it afterwards that as a wrap thanks to Susan for coming on the podcast. It was a fascinating conversation and perfectly encapsulates the challenges we face doing community wide adaptation planning. Although the conversation might have sounded critical. I definitely applaud Charleston for all the adaptation work that you're doing for city in the south. They are definitely leaders. Some of the topics Susan covers are controversial subjects race and climate change. Definitely hot button issues. I encourage you to learn more about what Charleston is doing by visiting their website and definitely getting more of their perspective on the work they're doing. I think a lot of cities will be watching Charleston and learning how they try and thread this adaptation needle through equitable planning practices. I obviously think the much bigger issue for these coastal cities is that they are still encouraging growth in the regions. Yes, I'm looking right at you, South Florida. There's still so much uncertainty on what climate change will mean for existing populations in these at risk areas, even with significant adaptation planning and funding. Encouraging people to come into these regions with such climate uncertainty is incredibly irresponsible, decoupling economic growth with population growth should be a major climate adaptation area of research. Alright, guys, if that's your area of expertise, get on it. Thanks again to Susan for coming on the podcast. Okay, so I don't do this every episode, but it's something you'll hear more from me about in the coming months. As many of you may not be familiar with the behind the scenes efforts required to produce and sustain America daps I'm making a heartfelt pitch for your financial support America ADAPT is a small nonprofit organization centered around the podcasts. And while I do receive sponsorships for specific episodes, I also rely on individual donations. In the past, I haven't emphasized this avenue of support, but now I'm revisiting it because I truly need your help. Some generous donors have been contributing $10 per month, which is tax deductible since we are designated as a 501 C three organization through the social good fun, I want to thank some of my recent donors, I'm blown away by your generosity. Thank you. I deeply appreciate those donors. But I need more of you to contribute. You may have heard similar requests on other podcasts that depend on listener support. I'm not the best at making these pitches. But after doing this for a while, I know that many of you gain tremendous value from the podcast people have shared how they binge on episodes to grasp the essentials of climate adaptation. So in addition to the professional value received,

please consider donating to help raise awareness about adaptation. We're all passionate. We're all passionate about this issue. And I created the podcast precisely because I wanted to communicate the importance of this field the podcast reaches influential individuals worldwide. And by supporting it, you become part of that valuable contribution if we can spend money on $5 lattes without hesitation. Please think about making recurring donation of a similar amount to support America adapts. The reality is that I won't be able to continue publishing the podcast without sponsorships and direct support from listeners like you. Some might assume I have hidden funders. But that's not the case. Why have explored foundation support those efforts haven't been successful. Therefore, I rely on episode sponsorships and support from individual donors. Let me reiterate that I genuinely dislike making these appeals and I'm not particularly skilled at it. However enough you have expressed how much value you derive from the podcast, you've changed careers and approached adaptation differently. Because of the remarkable experts featured on the show. Over the years. There is simply no other platform where 1000s of adaptation professionals can gather and learn like they do on American apps as podcasts is my passion just as adaptation is. And together let's keep making a difference. We all know that climate adaptation will become increasingly important in the years to come. And the stories we can tell are limitless. So I invite you to join our community of changemakers and help shape the future of climate adaptation by supporting the podcast in sharing these stories. Okay, that's my pitch. If you're interested in donating, you can find the link in my show notes or visit America daps.org Thank you. Finally, as the host of America daps. I'm always eager to connect with my listeners and hear feedback on the show. Whether you want to share your thoughts or suggest to guests you'd like to hear from I'm open to it all. Your input not only helps me improve the show but can also lead to exciting new opportunities. It's critical to know who's out there who's listening and what you're doing. It's very valuable. I can be reached at American apps@gmail.com I look forward to hearing from you. Okay, adapters Keep up the great work. I'll see you next time.