Actuaries in Climate Change with Sharanjit Paddam

Interview Transcript

Julia Lessing: Hi, everyone. Today we're talking to Sharanjit Paddam. Sharanjit is a leading expert in climate change, as well as being an actuary with 30 years' experience. He's a fellow of the Australian Institute of Actuaries and also the UK Institute and Faculty of Actuaries. He's done a TED talk, and he also currently co-leads Finity's Climate and Sustainability Risk Practice. Sharanjit, thank you for talking to us today.

Sharanjit Paddam: Hi, Julia. Thanks for having me on.

JL: So emerging leader Laura Zhao actually nominated you for this podcast, and she's got a question that I'll ask you a little bit later. But I thought for those of you listening who haven't heard Sharanjit's story, I just want to start by asking, what prompted you to make that move into climate change? Because it's not an area, especially when you made that change, it's not an area that's historically been a, you know, a known space that actuary's play in, although you've been changing that certainly over the last few years.

SP: Yeah, Julia, it's an interesting question, because a lot of people kind of assume it comes from like maybe a care about the environment, or a care for the future of humanity perhaps. Actually, I mean, I do care about those things, but they're not actually what drove me to working in climate change. You know, I'm not really been an outdoorsy kind of go out in the woods kind of person. I've always been, you know, I like my TV, I like my dishwasher kind of person. But what it was, was I was editor of the Actuaries Institute magazine. And the Actuaries Institute sat me down and said, you know, you can write whatever you like, just maybe don't mind about climate change. And they said, well, you know, we don't have anything against climate change or anything. But what happens is when people write about climate change, we get, a lot of complaints, particularly from some more senior being around for a while actuaries.

JL: Wow.

SP: I was like, ah, so I think there's two things about that. So one was that part of their complaint was this isn't, an actuarial issue. Like this is, you know, this is politics. And that was just seemed, you know, someone working in general insurance, seeing natural disaster, seeing floods. I was like, no, this is an actuarial issue, very much an actuarial issue. And the other part to it is someone told me I couldn't do something, and I'm afraid I'm that person who when someone tells me not to do something, I'm like, why? What's going on? I want to know more about this.

JL: Yeah.

SP: And actually, that's what propelled me into looking into climate change and wanting to write a paper about it saying, no, no, this is really important for actuaries. And up till then, I kind of hadn't sort of put my own effort into it because, you know, there are lots of people thinking about it and doing it and happening. But yeah, it was, it was A, the absurdity of it. And B, someone told. me I couldn't do it.

JL: So it was like, so it was like a red rag to a bull when they said, no, you can't write about climate change. And you thought, oh, you're not going to tell me what to do. What not to do.

SP: And that's right. And I actually have to think that, you know, I've got to know a few actuaries that I've admired. And a lot of them are like that. I think it is an actuarial trait where we're really curious people and we want to know. And, you know, we're suspicious when things aren't transparent. And that kind of instinct drives us to kind of dig down, often causing a lot of problems and chaos, but, but oftentimes uncovering important things and ways of doing things. And on that note, I think there's, there's another bit to this, but, you know, that's maybe why, how I got started in climate, but why did I stay in it? It's a different question.

And I think part of this is another kind of actuarial instinct or certainly an instinct that I have, which is I love solving problems. Like, for me, that that's the fundamental thing about why I'm doing my job and why I love my job and why I love my career and I feel very blessed to have what I have is because I get to solve problems every day. Now, you know, they can be from why isn't this Excel function working to, you know, how do we get this organization to shift from A to B? And so, you know, all of that, that type of thing really interests me and gets me to work to do this stuff. And if you're looking at the world today, you know, the biggest problem, I think the biggest challenge we have is climate change. And so if I'm going to devote my life to looking at a problem, I'd like to do a big one. Thank you. And that's probably why I've stayed in it.

JL: Yeah, wow. So, so it wasn't just that you were told not to write about it. You could also see what a problem it was and how it actually overlapped with the actuarial profession and how it was going to impact, like you said, you're not a greenie and, you know, just all wanting to care for the environment, but you're also seeing that financial impact as well. And there's nothing wrong with the greenie side of things, of course. But also, but also that you can see the financial impact of climate change and how that was overlapping with what actuaries are doing in terms of pricing and understanding risk. And that those are the sorts of problems that you like to solve. So that's what's kept you in the space.

SP: Yes. And hard problems like the harder the problems are better. I get I get very easily bored, I'm afraid. So, you know, I have, you know, don't like people telling me what to do. I get very easily bored. Not necessarily great characteristics, but they have driven some of my career choices. I like to say that. Yes. So, I do like hard problems. And I do like looking at difficult things and pushing forward with that.

JL: Excellent. So that's a that's a good introduction to the question that Laura had for you, Sharanjit. She she'd like to know what was the biggest challenge on climate change related work that you've faced and how you addressed it and whether or not you'd address it differently if you were faced with that same challenge again?

SP: Yes. So, perhaps this is not the answer that Laura expected, but I think it is actually the most honest answer, which is that the hardest thing about working in climate change has been getting people to do something about it. You know, I started quite late on in the game in the long scheme of things. But I think, you know, I started looking at climate change about 10 years ago and it wasn't quite on the agenda for many companies. And there was a way in which, you know, it was very hard. It was very hard. I would have lots of people who would want to talk about it, more interested, show concern.

But when it came to actually, yes, please do this piece of work for me and I will pay you to do that piece of work for you. It was really, hard. Yeah. And to the extent that I laugh at myself, you know, I say, you know, you thought you were solving the hardest problem in the world, which is climate change, but actually you're solving an even harder problem, which is how to get people to pay you to do stuff like climate change.

JL: Right. Right. Yeah. Convincing people that it's worthwhile investing in helping to change, to address these problems. And that's a big challenge. People can agree that there's a problem, but being willing to actually put some money to it towards helping to solve it is quite a different matter.

SP: Yeah. And I think I grew up very quickly in my in my actuarial practice and my consulting. Right. When I realized that. So a lot of the work that actually is a traditional doing, a lot of work I've done up to then had been, you know, very much everybody agrees it has to be done. It's just someone to do it and someone to do it well. And you're just going to do that. Whereas acting on climate or getting companies to think about thinking about the financial impact of climate and what it will do for their risk and what's their strategy to manage it. And those things, there wasn't a requirement for anyone to do that. I think, of course, there's a requirement to do that. But anyway, there wasn't a requirement.

So it got me thinking a lot about how do people actually make decisions? What drives organizations? How do people think about this? And I think, you know, once you step into that world outside of traditional actuarial domains, it becomes a very interesting place. And, you know, a lot of the things that we strive for in actuarial work, like scientific rigor, rationality, evidence, data, they don't really drive the rest of the world in many ways. So you have to compete in that world. And you're having to think about and I'm having to think about all of that is doing this. But I think one of the other things that really made me kind of change my view was so I've got a very bad analogy. And I beg your forgiveness.

JL: Analogies are always good. Go for it.

SP: So, I think what, you know, a tree, let's use the tree as an analogy. And actually, you know, actuaries are a very good at like building the roots of trees, right? We're very good at

going down, being. really robust in our thinking, robust in our modelling, and robust in our data, assumptions very, you know, we'll go down to the nth degree, and we'll have deep roots in what we do. But actually, most people only see, or dare I say care about is what's above ground. And even then, some of them may be interested in what's in the trunk and branches, but actually, most of them just want what's the fruit at the end of it. And so, I had to so stop, stop, stop talking about the roots, right? Stop talking about which GLM you're using now and start talking about the roots. And start talking about you, you can, but you can't let go of the roots, because you want to build something, you know, you want a tree that will be resilient, they won't fall.

JL: You need the foundation.

SP: You need the foundations. But and I think a lot of a lot of things that have happened, you know, how do I talk about the fruit, knowing about the roots, but not talking about the roots?

JL: Right.

SP: Right. And so I think that's kind of a really important thing, what has been really important for me moving into sort of non-traditional areas, right? Because no one, no one cares about the fact that we as actuaries can build great models or can understand the data and can figure out how to interpret the science and apply the science, which is a lot of what we do. What they care about is how does that then benefit them? And how what are the fruits for them? And so I think that's been a really, you know, like I said, I grew up very quickly in that timeframe of talking to people and saying, you know, going in with a very naive belief that people understand that this is risky, and that they're going to lose money, they'll want to do something about it. That was not always the case.

JL: Yes. So it sounds like the biggest problem for you was then how to communicate with maybe non actuarial stakeholders and convince them to engage you to help them without just talking about what it is that you would do or the tools that you would use. And I can certainly relate to that in my work in health and human services. You know, often I don't even say “I'm an actuary” because my clients don't often know what an actuary is. And you have to get good at sort of talking about the fruit, talking about what it is that how that you can help them rather than saying, well, I'm great at coding in this coding language, or I'm great at, you know, doing these Excel functions. They don't care about that. They're interested in what you can do to help.

So when you made that realization, how did you change the way those conversations went? How did you address that problem to turn the tables? Because you're not still trying to, you know, get people on board or convince people about the importance of actuaries being involved in climate change. I mean, in fact, you know, you were Insurance Leader of the Year last year in 2022. So you've got quite a high profile outside the actuarial profession. How did you start to change those conversations? What was it that shifted as you say, as you grew up in your consulting and had different conversations to get people on board?

SP: Yes. So I think part of it, a lot of it was actually thinking about what it was that the individuals I was talking to cared about? And what was it, what were their objectives? And how did I show that this would help them achieve their objectives? So, a lot of it was very tactical at that level, and probably not very generalizable. But certainly the whole thing about listening, thing about understanding where someone is coming from, and what their what their concerns are, what their values are. And in a way, you know, I went at that point, I was going back to my problem definition has changed, but it's still a problem. It's still an interesting problem. And I still want to solve it. Right. So that was that was also part of it. I didn't lose that way of doing things. But understanding that, you know, the Chief Risk Officer will think about things like this, the Chief Financial Officer will think about things like this. There's no actuary in sight.

And so these are the people making the decisions, right. So that's not a card that I can play or necessarily would advantage me playing that. So it's much more about understanding the drivers, understanding one of the biggest drivers for action on climate change is actually external to companies. It's what their investors are concerned about. It's so a lot of what I did with climate change work was started to talk about cost of capital. Right. And that's that brings it back to an actuarial space, but also a space that the CFO, the CRO, the CEO all want to talk about cost of capital. So companies acting on climate change insurers acting on climate change is actually was actually driven and has been driven by what investors are talking about. And if their cost of capital, because the investors say, no, you're not managing climate change, you've got an extra risk, we're going to charge you for that risk either through a higher cost of capital, or, you know, we're not going to pay for your shares as much.

That's actually what drove a lot of decisions and changes. And so converting that conversation about risk to saying, well, actually, yeah, it's not just a theoretical conversation, we know this is happening in the market. So that was a really good way of driving that and thinking broader terms. And, and again, that's where the actuarial skills fitted in, because you could show the cost of capital you could show, but we can show how we're doing what we're doing and what we're putting in place to manage that risk. And then we're convincing our investors and lenders that we've actually got this risk under control.

And that becomes a business benefit. I mean, in the market today, like, the there are now concessional rates, so concessional cost of capital, the less the smaller cost of capital companies that are acting and are doing well, the European market and for sustainable finance is amazing. And investment capital is flowing rapidly towards sustainable product products. And that ultimately drives a lot of the businesses that actually are involved in certainly the people who make up my clients.

JL: And that's certainly there's that international momentum around climate change and how we allow for it and how we included in that cost of capital and what we need to be making allowances for and what investors care about. It's not we're not back in the sort of still having that debate, although I suppose in some circles, we still are having that debate about all these climate change real. But it does sound like the corporate world has moved

on from there and accepting it as a risk and needing to quantify it as a risk. And you can go back to the foundations of your tree and go, well, I've got the tools to help you do that. And by putting yourself in the shoes of your customers, those CFOs and others who are needing to engage your services, you're able to then speak their language and then go back to the roots of your tree and draw on the tools that you have from your actuarial training to be able to help them.

So it is a challenge getting stakeholders in persuading stakeholders that an actuary can help. You've certainly done an excellent job of raising your profile within the actuarial community and beyond in terms of how actuaries can help in the space. I wonder though, how do you find as you're growing out a practice of actuaries working for you, how do you find supporting those people coming into the profession and wanting to make a difference? And maybe they are more motivated by caring for the environment as well. How do you bridge that kind of gap? Because I know sometimes actuaries say to me, oh, you work in health and human services, what pricing do you do? What reserving do you do? And I'm like, no, no, no, no, no, we're not doing traditional things here in this space. And I imagine to start with at least you wouldn't have been doing traditional things in climate change.

So how do you nurture your team and support the career development of those actuaries coming and working in your practice area?

SP: Yes. So I mean, one of the things I do a lot when I'm working with people and engaging with people is to start where they are and help them walk to where I want to take them. So don't just stand where you want to be and talk from that space. Move to where people already are. What do they already understand? What's their language that they use? And start from there with them and then start to move and walk with them towards what you can see in the distance that you want them to get to. And that can often be interesting. So, someone who is very motivated, so for example, activists within the sphere do the opposite. They stand on their hill and they shout out and they raise it. And that is, I mean, it's a really important part of the whole system of change. And I completely support that. But it's very hard then for someone who's down the bottom here or can't see exactly how they're going to get there, right?

So the way that I try to work with people a lot and the way I just generally work is to come back to where they are and take the steps forward. So with actuaries a lot of what solving climate issues or how we look at climate problems is very much going back to the real basics.

It's very much saying, can we figure out where the cash flows are? Who's paying who and what and under what? And what are the conditions that drive that? And what are the probabilities around that? And can we add them up correctly in the right order to make it all work? And that simple thing that we're taught in Actuarial 101 is still what I use today and still fundamentally where when an actuary comes to work with me, that's what I keep taking them back to because that's what I trust they know how to do. And then the questions really come like, okay, have you figured out where's the money moving? How's the money? Where's the cash flows? Who's paying who what because of this? What are the conditions

driving that? What are the, and that's where you get into pricing, like, you know, what can affect the relative probability of this happening?

And then we can go to that kind of area, right? And then we can add it up in discounted and then we're moving into reserving skills, right? Yeah, nothing has really changed, right? And, but what I have to often unteach them is, you know, necessarily go into a lot of detail in one specific thing and say, think about what are the big drivers for the final number? What are what are the things that really matter? Let's focus on those. And let's not worry too much about these little ones. So skills like sensitivity analysis is, you know, constantly using that, right? And once you have that idea, then it works forward. And then climate change, a lot of it is about scenario analysis, because we don't know what's going to happen in the future, we can't actually make rational predictions about it, because they depend on political action, what's going to happen.

So, we need to do scenario testing. And so that's, again, how do these scenarios change the cash flows? How do they change the probabilities of those cash flows? How do they change, you know, what's the relativities happening in here? And fundamentally, we go back to that. So I tried to talk that because I know that my actuarial audience will engage with that. And then they start to see, okay, well, this is a really important factor over here. And we don't have much data. Okay, great. Find the data, think about how it will affect it. And that will prove the answer.

And you've already done the sensitivity testing that says, it's worth digging down here, because it's just changed by 1%. Our answer blows up by 100%. So, we need to know that number. And so, all of that is Actuarial 101. And all we're doing is applying it in a different way, with a different bunch of people paying a different bunch of people money on different circumstances. But it's still fundamentally that.

JL: Yes, yeah. So it's still going back to your Actuarial 101. It's still going back to those foundations in the tree, the roots of the tree. It's just that instead of growing an apple tree in general insurance, we're growing an orange tree or something slightly different. It's a slightly different application.

SP: Yes.

JL: Yeah, yeah. That's amazing. How lucky for those people to be working in your team, Sharanjit. And I can see as I'm listening to you, I can also see the enthusiasm and hear the enthusiasm in your voice about why this is an important space for you. Because you said at the start that you're a curious person, you like to solve problems, you enjoy solving different new challenging problems, not just doing the same thing over and over again. And it sounds like working in this space allows you to draw on those fundamental skills, but to apply them in different ways and to take that curiosity that you were talking about. And where are the cash flows going? And don't have a prescribed way to solve these problems. It's really going back to first principles and being curious and testing things and seeing what's happening and to be able to make decisions based on that and to navigate a less clearly defined problem solving path maybe than if you're in a traditional area.

So, okay, so we've talked about, we've talked about how you navigate outside the actuarial profession and how you speak the language of important stakeholders who might engage actuarial services to help. We've talked about how you engage with your team and how you develop actuaries in this space as well. I'm busting to ask you about your TEDx talk because I mean, that, you know, that's a public audience. It's a wider audience. You don't know exactly who's going to be listening. You know, often we think, Oh, who would want to hear a TEDx talk from an actuary? Cause you know, people don't know what actuaries do, but how, what was that like for you? And how did you design a talk? And I've listened to it. I'll put the link in the show notes. It was a fabulous talk. How did you design a talk that was so engaging for such a wide audience outside the profession, even outside financial services, but more of a community audience? What was that like?

SP: Thanks, Julia. And I'm glad you enjoyed the TEDx talk. I have to say, I find it hard to watch because I, you know, it's, I can see all the things I did didn't quite pull off and all that.

JL: Nobody knows that, Sharanjit, only you know.

SP: I know, I know, and there is part of that. So, I have to say it was a lot of fun. It was just ultimately, like, it was a lot of fun. And like, again, it was a new problem. It was a new shiny thing. I'd never done this before. Like, how do I communicate with a general audience about a topic? And I have to say that the team at TEDx was fantastic. They coached you through, and we had to do a lot of iterations. I'll put it that way.

Because the fundamental challenge was if they wanted a talk to lay person about climate change, then I would have been fine. I would have lots of things that could talk in a language. But what they said is no, they didn't want me just to do that. They wanted me to talk about, you know, what does it mean for banks? What does it mean for insurers? How are these guys looking at it? And how are they using risk management tools to think about all this stuff? And that's how they found me because they were saying, we want to talk, the theme that they were curating. I don't remember the full details of it, but it was beautiful.

And they wanted a risk expert to come in and talk about it. And they wanted someone to engage with the financial services industry in the whole tapestry of things that they were creating. And that's how they sought me out. So, they wanted that. But you know, I didn't really want to talk to them about cash flows and probability and stress testing and scenario analysis. That wasn't going to work for the general audience. And I did try a few creative ways to make that work. But as I said, we iterated beyond that one. So that was the fun challenge of that.

And I think what you see at the end is that kind of trying to balance it, trying to find ways to, to help people understand how it affects their world, but also to walk them towards how the banks see the world and how the insurers see the world and how they make decisions. And what is it that how can those two things interplay? Like what can you do to influence what the banks do? And how can they do things to make it to solve some of these problems? So

that, that was it. The biggest challenge though, I mean, that was one challenge. Like how do I navigate this audience?

JL: And it sounds like you had a lot of, it sounds like they kind of coached you through that as well. You had a lot of support to sort of make sure that it was on message for that audience. Yep.

SP: Yeah. And I requested it. And you know, people have different experiences. Some, some don't want, some people who speak know what they're going to say and would rather the TEDx people didn't give them any coaching. Other people like me were like, help me! And then, but what actually was really interesting for me is that I think I'm a good communicator, right? I know what I need to say. And one of the things that happens to me is I don't, I don't overly prepare. I don't have a script for my presentations. I don't advise my staff to do this. I tell them, no, go away, practice, have a script, know what you're going to say. But for me, I think I've got a point where I actually do worse when I have a script.

JL: Feels too rehearsed.

SP: Feels too rehearsed, doesn't come across. And I think engaged, the way I like try to engage with and understand who the individuals in the audience are, where are they coming from and adapting to them, getting myself to where they are and then start to move to where I want to take them to, doesn't really work in a TEDx talk as a way of doing things. And it was much more of a performance with a script that you knew. There was timing around what I was doing. They asked me to change something and we discussed a minor change at the end, it changed the timing by 30 seconds. That was a huge issue for the stage management.

You know, they were going to have to bump things up and down to make it work. And so, I was like, oh, okay, I'm going to have to sit here and learn the script. And I was terrified. That was the bit that when I watch it, I see, oh, I flubbed my lines, I flubbed my lines. And that was actually the hardest part for me, because I don't do that very well. You know, I'm not an actor, learning the script was really hard. They did allow you to use cards. When I do get, sometimes watch it, I watch how cleverly they edit it out and they move the camera back when that's the bit where I was looking frantically at my cards.

JL: Oh, really?

SP: Yes. I bless the power of editing. Editors are, you know, great people. So yeah, so it was a great experience. And like I said, I learned a lot and it put me well outside my comfort zone and I loved going there and I was terrified but it was fun.

JL: I can only imagine, but I mean, what a great thing to have done and what a great experience to have been through. So, and from my perspective, what an amazing outcome. I thought it was a fantastic talk. So yeah, well done. Thank you for doing that and putting the actuarial profession on the TEDx stage.

So Sharanjit, we've talked about why you got into climate change, what you love about it and how you enjoy solving problems and being curious and to, you know, make your life's work in this important space. We've talked about how you engage with non-actuarial potential buyers of actuarial services and how you've had to sort of flip the script to engage with them and to be able to understand their problem, to be able to help them. And we've also talked about how you mentor and train your team of actuaries and how you meet them where they are and you sort of help them by starting with what they know, but then also prompting and helping them to do some of that problem solving that's required to apply those actuarial fundamentals in a new area. And we've talked a little bit about what it was like doing a TEDx talk, which I personally think is just absolutely amazing. So thank you so much for sharing your thoughts on that.

Before we finish, is there one tip that you would share for actuaries who are listening, who are working in a traditional area of actuarial work, but would like to move what tip would you have for someone that's in that space thinking about that move?

SP: So I would say that you need to learn the language of climate change. You need to understand what are the problems people are trying to solve. And it doesn't take a lot of research or hard work to do that, but you do need to have that basic fluency. And I do look when I talk to people or say, if I talked about an RCP, would you know what I was talking about? And those types of things, right? So yeah, do your basic research and think about that.

And you don't have to be a climate scientist. You don't have to go up and do a Master's in climate science. And in fact, that's probably not what we need. Actuaries have been doing this for many, many years, even with life insurance, where we all started, is that it was about, we've got health information and we didn't have to be doctors to do something about that, right? We didn't have to be doctors to understand how long people will live and how we can create products around that. And it's the same thing with climate change. You don't have to be a climate scientist, but you need to understand the science. You need to be able to apply the science. And that's fundamentally what we're doing. So, I would say that piece.

The other part is, there's a lot in our actuarial training, particularly these days. And I sometimes think, would I have gone through this if I was a young person? I probably answer, no. That actually gives us a lot of methods and processes to apply and pathways to getting things done. And that's great. And that's important. It's useful. And it's the development of our profession and science over many, many years. But I think you also have to be someone who has an instinct to say, I'm going to throw that away and go back to fundamentals and first principles and rely on that. And for some people that's really exciting and that's really interesting. And they thrive in that world. And for some people it's terrifying and people freeze. And that's perfectly fine because you can do other things that are just as hard and difficult.

So I think it's really important you know yourself if you want to do this. You want to know, is that who I am or not? Because ultimately there's nothing else to test you with. I don't have questions I can ask you about applications. But I need you to have a mindset that says, I

understand the fundamentals. I love problems. I'm going to figure this out. I'm going to use data. I'm going to use science and I'm going to stick it all together, which is what actuaries have done for years.

JL: Great advice. Great advice. So know yourself, know what you want to do and learn the language. Exceptional advice. Thank you so much for your time today. It's been a fantastic chat. And I'm sure that our listeners will find this conversation very, very informative and insightful. So, thank you, Sharanjit.

SP: Thank you very much, Julia.