

Climate Change Vulnerability Assessment Interview Transcript with Thomas Timberlake

Edited 12/22/20 by Paris Edwards

Paris ([00:10](#)):

Hi everyone and welcome to These Lands, a quarterly production of the USDA Northwest Climate Hub. I'm Paris Edwards, the voice behind the podcast that shares ideas, lessons learned, and other useful information about how to reduce the negative impacts of climate change on our forests, farms, and rangelands in the Northwest. Whether you're a manager, landowner, scientist, student, or just curious, this is a podcast for you.

Today we speak with Thomas Timberlake. Thomas is currently working on a project with the Pacific Northwest Research Station to help managers make use of the information from vulnerability assessments in required forest management planning processes. Thomas, thank you so much for taking the time to speak with us. Can you tell us a little bit about yourself and the work you're currently doing?

Thomas ([00:56](#)):

Thanks for having me. So for the past year, I've been a Forest Service employee. I'm currently on a detail, so it sort of rotation with the Pacific Northwest Research Station and Pacific Northwest Climate Hub and I'm currently working on some efforts to translate climate change science into planning and management practice. But my normal work focuses on managing partnerships between water providers and the Forest Service. So we run a few partnerships between water providers, city utilities, for example, and the Forest Service to reduce wildfire risk to water systems. So that's the work that I normally do, but I have a background in climate change and social science research associated with climate change. And so those are the skills I'm kind of relying on now. I'd say sort of overall, I'm interested in relationships between human communities and societies and the natural environment and the ecosystems and water that the natural environment contains. And then how human communities manage those relationships between the natural environment and in communities through policies and management practices.

Paris ([02:09](#)):

Say a little more about your research. I know that as an academic and now as a practitioner you focused on climate adaptation on public lands specifically, and that's something that I think is unique within the forest service. Can you explain kind of what inspired your interest in that area and how that's evolved into the position that you hold now?

Thomas ([02:28](#)):

I think you're getting at something important here that both, I mean, managing ecosystems, forested ecosystems, and that's a complex task, even without climate change. You add in warming temperatures, more variable precipitation patterns and so that whole uncertainty associated exactly when you're going to see that show up and that makes things even more complicated. And so, I mean, from an academic perspective, I think that complexity is something that really draws people in and got me interested in the topic. And I think I sort of got started on research on this topic at a time when adaptation efforts within the Forest Service and other agencies had been going on for a few years, but we're sort of still very much in the gearing up and starting up phase. And so I was lucky enough to sort of get in at that time and get to sort of track some of these initial efforts to sort of lay the foundation for adaptation .

And now I think we're at this point where things are starting to really kick off in terms of actual implementation of adaptation efforts on the ground.

Paris ([03:34](#)):

You mentioned that your detail with the Pacific Northwest Research Station and the Northwest Climate Hub involves improving the utility of vulnerability assessments. And we spoke in detail about those with Jessica Halofsky and some others, but this sounds like a really big undertaking and also really an important one in order to maximize their benefit and their use. So are there some aspects of this process or kind of some early outcomes that you might be particularly proud of? And I'm also curious about some of the challenges of trying to do that.

Thomas ([04:05](#)):

Yes, let's see. Oh, I guess I'll sort of connect this back to some of the work I did in grad school and I'm a social scientist by training. And so a lot of the work I did involved interviewing land managers about how they're considering climate change or how they're getting involved in developing a vulnerability assessment and partnership with scientists. And I think one theme that came out was this idea that folks needed starting points and needed sort of a little bit of help in terms of connecting information in a vulnerability assessment to the specific decisions that they would be making on the ground. So I think this was something that was just sort of hanging out there and in back of my mind, think about it a little bit, wrote some, wrote some of my dissertation about this topic. And then, fast forward, I got started with this detail

and Jessica mentioned the fact that some of the recent vulnerability assessments that they'd been working on certain management partners had requested some additional help in terms of pinpointing how you might use the information in the vulnerability assessment in the context of specific planning tasks, for example. And the managers that they were working with and that now I've been working with expressed this need for some sort of product or additional document that would connect the vulnerability assessment to planning and management tasks. So that's where I came in. And I think we've been kind of referring to this whole process as "cross-walking." Essentially, that means that we're "cross-walking" or connecting content from a vulnerability assessment to some of required tasks that managers and planners would have to do, sort of in line with some of the big policies that guide decision-making.

Paris ([05:49](#)):

Would you say that there's, you know, you're feeling like this process has been fairly successful? I know we're in early stages but have there been some sort of challenges in trying to make this work?

Thomas ([05:58](#)):

I think the big challenge with this is you don't quite know how successful the product is or how successful, I mean, I think this, this idea might even apply to climate change adaptation as a whole. You kind of don't know how successful it is until there's sort of what you're doing actually gets tested. And so I think we're at these initial stages of let's put together products that are gonna support forest planning, but I think to really see how successful they are, we're going to have to see if and how they get used in the context of actual forest planning processes. And then I think more generally, I mean, climate change adaptation, in some sense, you're preparing for something that's going to happen in the future and you don't always know how well what you're doing in the present day, how successful that is until you actually sort of run into that climate change disturbance, or fire or flood. Maybe that's a personal

challenge I'm grappling with in this work, but I think it's also something that's kind of inherent to adapting to climate change,

Paris ([06:59](#)):

But it sounds like what you're saying is this is going to be, necessarily, an iterative process, and that there may not be some instant gratification in terms of, you know, check a box we've been successful. But perhaps in feedback along the way that will help guide future changes.

Thomas ([07:14](#)):

Exactly. Yeah. Yeah. I mean, I think all of the frameworks for adapting to climate change sort of rightfully identify this iterative process. You go and try something, you monitor and you see how you're doing, and make some changes. And I think that's true of, these sort of science translation efforts that we're working on as well.

Paris ([07:34](#)):

So you mentioned this process of national forest system units. They're starting to update and revise some of their existing land management plans to be in line with more recent 2012 Forest Service regulations. So I mean, it sounds like this is a window for managers to put vulnerabilities assessments to use. Has this informed your approach to improving the accessibility and utility for use?

Thomas ([07:57](#)):

Exactly. The term "planning" obviously can apply across a wide range of different sorts of scales. I think in this context, what we're talking about is land management plans that guide management on the national forest unit. So I mean, anywhere from, I don't know, one to 5 million acres, so pretty, pretty big landscapes and then over 10 to 20 to even 30 year time periods. So there's this longer, longer term, larger spatial scale of decision making processes where I think that sort of lends itself well to taking into account climate change. I mean, land management planning is something that's required by statute, right? The Forest Service at several points has developed regulations, guidance for specifically how national forest and national grasslands will develop their land management plans. So in 2012, before the Service promulgated regulations, which we generally refer to as the 2012 Planning Rule, that guides sort of contemporary land management planning. And what was interesting or unique about these regulations is the fact that the 2012 planning regulations explicitly require national forests to consider climate change.

When developing plans, the regulation sort of described climate change as a system stressor and driver that's sort of affecting ecosystems. It's affecting multiple uses and sort of a social and economic sustainability associated with managing public lands. And so there's this real need to consider climate change in the context of land management planning. It's really written into the regulations and it's maybe the sort of explicit argument to consider climate change is less apparent in other types of decisions. So it's really an important element of forest planning. And so how that shows up in the cross walking guides and sort of translational efforts we're working on is that I think we're really trying to clue in on what does the 2012 Planning Rule require? Where within that process that you're going to be doing for a land management plan, where in that process might information from the climate change vulnerability assessment fit in? I think we're sort of operating under the premise that vulnerability assessments include a lot of good information about climate change and its impacts on forested ecosystems and other resources, but they also include some sort of other information that isn't always explicitly about climate change, but nonetheless is useful scientific information that can inform planning

decisions. We're hoping that sort of bringing these two things together might help planning teams down the road when they're sort of starting in on a plan revision process and might want to use a vulnerability assessment to inform that.

Paris ([10:37](#)):

So if I understand correctly, you're using information in the vulnerability assessments, and then linking that. And as you're saying, using those linkages as a crosswalk, so that you're really trying to build efficiency in finding information that's needed to satisfy a specific request.

Thomas ([10:57](#)):

Exactly. And it, I think it's, it's sort of in some ways a roadmap where we're saying, all right, you're working on this particular requirement, let's say, you're trying to figure out what sort of, how to plan for "ecological integrity," a required concept in the planning role and you want to consider climate change when you're trying to make sort of ecosystems that have this ecological integrity. Where in a vulnerability assessment, what pages, or what chapter might you want to look at to sort of do some reading to inform this planning process? And so it's kind of this roadmap making those connections. I think we're not trying to be prescriptive. We were not saying, this is how you should do it. What we're doing is saying, all right, here's the quick shortcut about where you might jump to in a 200, 300-page scientific report to help you think through this particular planning task. I think at the end of the day, I mean planning, like many public land and national forest management decisions, is one where it takes applying local knowledge and an understanding of the context where you work, and then also some of this sort of scientific knowledge written into the literature and in scientific reports, and how do you sort of marry the local knowledge with the sort of higher level scientific knowledge? And the hope is our cross walking guide will help managers do this, but we also sort of recognize that planners themselves, having worked in a particular area, knowing the landscape, knowing the stakeholders, they will also have some sort of creative ideas and have some sense of how to do this as well. So we're kind of helping them in that process without entirely sort of prescribing how they should do that.

Paris ([12:41](#)):

I see, so focus on efficiency. And I think most people can appreciate the concept of a shortcut where efficiency is the goal. So, can you recommend where users might find these guides, these cross walking guides once they're available?

Thomas ([12:58](#)):

We'll be distributing them or making them available through a few different channels. I think first and foremost, we'll be using some of the internal websites to share these. I think we'll also be posting them for example, on the Pacific Northwest Climate Hub's website. And then obviously I'm happy to respond to emails if folks want to reach out to me. I think we're also thinking about down the road, publishing the guide and some sort of general technical report through the Research Station so that folks have an additional way of getting ahold of it. And in that context, I think we can provide some of this sort of background motivation and sort of described exactly what this guide is accomplishing and sort of connect that to some of the other science that's out there about climate change adaptation.

Paris ([13:44](#)):

Excellent. Well, thank you. And we'll make sure that your contact information and the links that we can anticipate are provided when available.

Thank you, Thomas. Thanks so much for your time.

Thomas ([13:45](#)): Yeah, no problem.

Paris ([13:46](#)): Thinking strategically about how to help users understand where to find information of interest and how to utilize it for specific planning processes is helping to maximize the benefits of climate change vulnerability analyses and improve their uses on the ground.

I want to thank my guest and remind listeners that several links with more information about today's speaker and details about where you can find vulnerability studies and related information are available on our podcast website.

From my makeshift sound room that doubles as a blanket fort, the Northwest Climate Hub sends thanks for tuning in to the final episode in the series. Join us again soon for more discussions about climate change adaptation in the Northwest. This podcast is sponsored by the US Department of Agriculture Forest Service. The USDA is an equal opportunity provider, employer, and lender.