

# The Future

## *Mobilizing Women in Forestry to Save the World*

BY EDIE SONNE HALL

*Rachel Kline and Edie Sonne Hall spoke at the panel “Women’s Legacy and Future in Forestry: Paving the Way for Progress” at the Women’s Forest Congress. Edie’s presentation followed Rachel’s. This article is adapted from that presentation.*

**M**y name is Edie Sonne Hall and I’m here to talk about the future of women in forestry. I am going to make the case for why women in forestry are needed to lead the way to help harness the benevolent power of trees to save the world.

Before doing so, I want to give a shout-out to the past. Rachel Kline did an incredible job highlighting the largely unappreciated contributions women have always made to the field of forestry. But it goes without saying that these contributions are largely unappreciated because women were not allowed to be in the jobs that had the most public influence. But I also want to acknowledge the more recent past. I want to acknowledge all of my mentors and all the women in the recent decades who have had to put their foot, toenail, or whatever they could into that weighted elevator door that went to the leadership levels and said: “Excuse me, I believe there’s room for one more.” You have shown that women *can* do any job that a man can do. Thank you for all the work and sacrifices you have made to get the

room ready for us—because look at all of us here today. We are here, and we are ready!

First, a little about me. I love trees. I love trees so much I named my kids after them. But it is the scale of forests and landscapes on which I have focused most of my career. I founded and run a woman-owned small business. I work with organizations of all types—from nonprofits to industry associations to government to individual companies—to help bridge the gap between science and policy and management. I am also a woman tree farmer, with some land that has been in my family for generations as well as some land that I recently purchased with my husband. Some of these trees I love have been purposely planted on abandoned agricultural land in South Carolina, on the land of the Chicora and Waccamah. Others have naturally regenerated around the old stone walls of failed agricultural lands in upstate New York, on the land of the Kanyen’kehà:ka (Mohawk). Still others have filled in and burned after multiple decades of fire suppression and, more recently, fire in north-central Washington in the Syilx tmix (Okanagan) territory of the Confederated Tribes of the Colville.

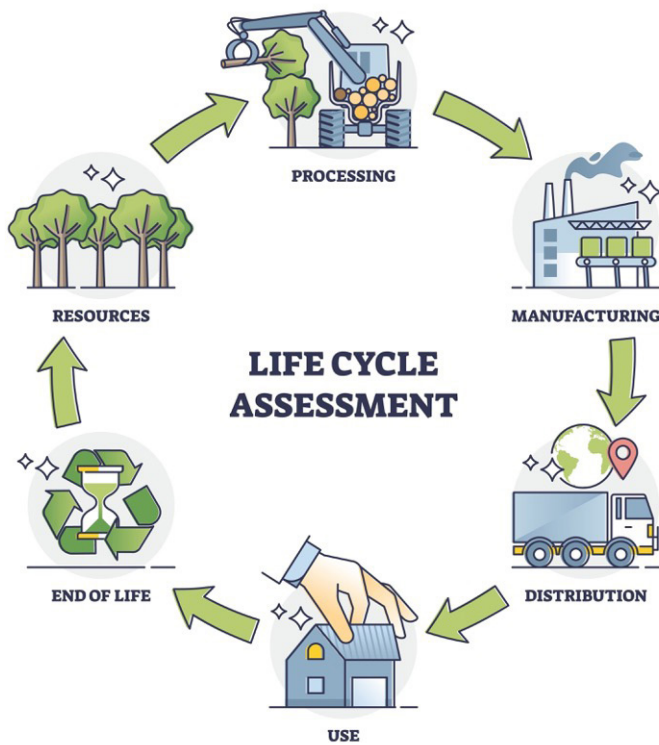
Being a family tree farmer is one of the reasons why I chose a career in forestry, and it certainly provides an important perspective.

Through my jobs and my land and my hobbies, I have studied trees and forests at many different scales—from global projects with the World Business Council on Sustainable Development down to measuring microfibril angles in wood cells when I worked as a wood quality research scientist. I have spent the past twenty-plus years focusing on climate change and how forests and forest products can help reduce atmospheric greenhouse gas emissions. I also follow closely how climate change will, and in many cases already has, altered forests around the world. And every day I am more and more convinced of the power of trees and their ecosystems to help us. I mean, *really* help us.

So what is the problem? We have a planetary resource constraint issue, and we have not been very strategic about it. Currently, the world extracts a hundred billion metric tons of natural resources annually, which we use for society’s needs, from housing to transportation to food. The quantity of natural resources extracted annually increased twelvefold between 1900 and 2015 and is expected to double again by 2050.<sup>1</sup> Currently, seventy-four percent of annual resource extraction is of nonrenewable resources.<sup>2</sup> Forty percent of global carbon emissions come from the building sector.<sup>3</sup> Eight percent of global emissions come from concrete alone.<sup>4</sup>

However, much of society’s needs can be met with renewable alternatives. Almost anything that is currently made from fossil fuel—from chemicals to packaging to plastic composites, fabrics, and personal

## Wood Uses and Their Fossil-Based and Fossil-Intensive Substitutes



Almost anything that is currently made from fossil fuel can be made from renewable resources. This graphic, adapted from Verkerk, et al., *Role of Forest Products*, shows some of the ones made from wood.

**Wood foam** can be used as insulation in walls, furniture and doors, and packaging and can replace fossil-based polystyrene and polyurethane.

**Textiles (made from wood pulp)** can replace polyester, polyamides, acrylics, cotton.

**Composites (made from wood chips)** can be used in decking, siding, roofing, furniture.

**Engineered wood (e.g. CLT, LVL, made from sawlogs)** used in buildings can replace fossil intensive concrete, steel, bricks.

**Bioplastics (made from pulp by-products such as tall oil, wood sugars and lignin)** used in packaging (including food grade) can replace fossil plastics.

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benefits of using just twenty-five percent more wood-based building materials over the trend line would be the equivalent of 1.9 gigatons of carbon dioxide (CO<sub>2</sub>e) in 2050. In addition, the carbon stored in wood products increases the mitigation benefits by another 1 gigaton CO<sub>2</sub>e, which together gets us more than ten percent of the way toward the reductions needed to meet a 1.5°C-degree temperature stabilization.<sup>5</sup>

Forests also provide other essential services. They provide drinking water to more than 150 million people in the United States—that’s almost fifty percent of the population.<sup>6</sup> Six percent of U.S. forests are within one hundred feet of a water body.<sup>7</sup> U.S. forests support 17,464 native species: 15,256 vascular plants, 1,014 invertebrates (that we know), 459 birds, 233 mammals, 226 reptiles, 216 amphibians, and 60 freshwater fish.<sup>8</sup> Forests also provide flood control, air purification, and shade in cities. And, of course, my favorite—recreation. “Nature Rx” is the real deal.

The bottom line is that trees and forests can do everything! So we have the solution, right? Then why is this so hard? Well, trees are dynamic over space and time, but they do not provide all ecosystem services on every acre or continuously over time. This makes it harder to plan.

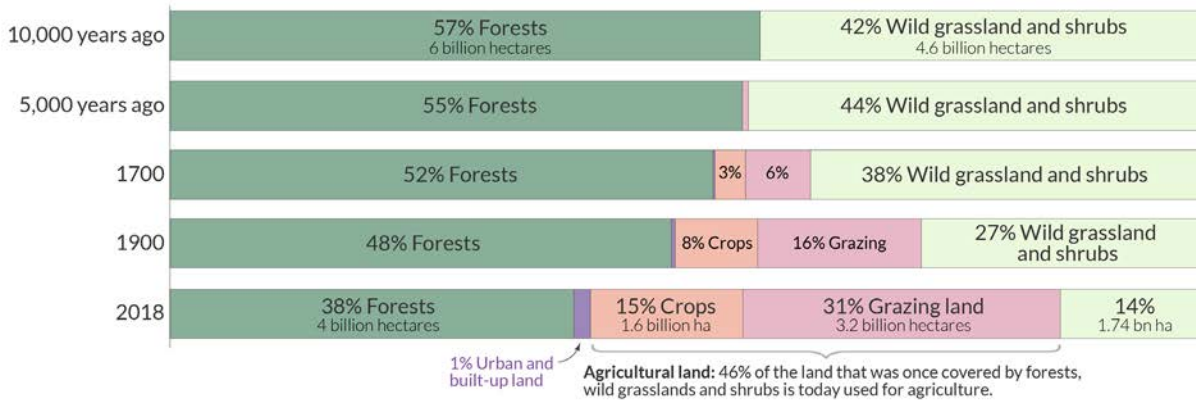
Until recently we haven’t really had to plan, since Earth is large relative to our population and resource needs. Earth has 10.6 billion hectares of workable land, and that is a fixed asset. However, we have a growing population, and we already overshoot our annual planetary resource allocations. We are now at a point where our population is too large to have inefficient uses of land. This is a reality. But what is also a reality is that we have been really inefficient

care products—can be made from renewable resources, including wood. Not only are forest resources the solution to resource scarcity, but they also can play an essential role

in providing low-carbon and even negative-carbon products and energy.

The Food and Agriculture Organization found that the global greenhouse gas (GHG) substitution

**Historic and Current Land-Use Percentages**



Over the last 10,000 years, one-third of the world’s forests have been replaced by agricultural land. Half of this loss has occurred in the last century alone.

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about our land-use management and allocations, and we have not been applying systems thinking.<sup>9</sup>

This is where the natural strengths of women come in. What are some strengths of women? Women tend to be optimizers versus maximizers. Women are good at incorporating trade-offs and managing for both the short and the long term. Women also tend to have compassion and seek cooperation. Maybe it is because women have more practice with all of these. Look around the room at all of you. Over the past week, likely many in your row have been juggling work, arranging carpools, scheduling dentist appointments three months out, and deciding which are the essential actions to meet short-, mid-, and long-term goals. Or caring for your parents, kids, and community members and making sure that no one is fighting. You are all trying hard. And you sometimes fail.

But you are thinking about how to balance it all, and how to find

practical solutions to give everyone what they need, including you. I’m not saying that one person needs to do everything—but as a whole, the system must consider everything. And if you are smart, you are enlisting the help of others—your village, your support network. This is important because teamwork and cooperation are what are needed to help harness the power of trees. No one person is going to solve this.

The old saying goes, “For every complex problem, there is an answer that is clear, simple, and wrong.”

We know there is not a simple solution. We know that we need to consider context, sustainability, resilience, and the latest research. If we do all these, we can absolutely have a world with healthy, resilient, productive forests that are providing renewable resources for a growing population.

So how do we get there? Here are key elements that will help us help harness the power of trees. Courage.

Communication. Teamwork. And balance and joy.

**COURAGE**

You have information in your brain, based on your set of learned knowledge and experience, that is important to put on the table. It is important because it is likely not already on the table. You have to speak up, even if you don’t have the entire answer. And if you don’t have the entire answer, say that! Wouldn’t it be fantastic if we could all clarify our statements with, “I feel eighty percent confident about what I am about to say.” Some people, by the way, absolutely do this, and I think it’s a great practice. So speak up, even if you don’t think you know everything.

**COMMUNICATION**

Figure out how you best communicate and what your weaknesses are. Some people provide information only when asked. If it is hard for you to find the courage to provide the information

you know, then find an ally who enjoys being the “butterfly.” Align yourself with great partners and allies and appreciate the different strengths of different people. There is not one person who can do everything, so partnerships and teams are essential.

## TEAMWORK

A team works well when there is a common goal, when there is trust, and when people care about the goal and about each other. I have been on some incredible teams, and it sure feels good. It is like the energy that comes from within each person coalesces together into one giant superpower. And you know the saying, “There is no ‘I’ in team”? It’s absolutely true.

I’ve also thought a lot about what our team is in the larger sense. If we are on “Team Trees,” then why does it seem like we have so much fighting or miscommunication even among the wide spectrum of people who work with trees, from environmentalists to industry folks across the broad value chain to academics and government officials? We share a common goal, right? We all want healthy, resilient, productive forests, and we all want humans to have the resources they need to live well.

Perhaps we are so accustomed to teams of the people we know—the people we trust. Just as we must embrace diversity of management types over space and time, it is time to ask ourselves, Who is on my team? And what are we fighting for? I’m here to tell you to make room on the field because we are all on the same team, and we are fighting for our planet to not only survive but thrive.

## BALANCE AND JOY

First, find your balance. We *all* need this reminder in an age where we are constantly tethered to our phones

and on-call for responding to work 24/7. No one is productive 24/7. You need to find the outlet that recharges your battery. Yes, yes, yes—get a hobby, or five. Get rest, get exercise, meditate. But also find the joy. Do something that makes you laugh unexpectedly. Do something foolish, silly, wacky. For example, I spent time leading up to this congress rewriting the lyrics to “Timber” by Pitbull featuring Ke\$ha. I was audibly laughing at my desk and then laughed with every person I shared the information with. And you will, too, if you know this song.

Of course, my go-to place for finding joy is in the woods. Which leads me back to forests. They are always the highlight and always the center. We are in awe of their resilience and we are in awe of their longevity. But we are also in awe of their dynamic nature, and we want to figure out how to have ten billion people living well within the limits of this planet. We can’t do this without harnessing the renewability of trees. We are at a point where our population is too large to have inefficient uses of land.

In her talk, Rachel quoted the illustrious Pitbull, “To understand the future, you have to go back in time.” She helped us understand the incredible ways women have always influenced the conservation thinking of forest and natural resource management. But we had to be sneaky and pretend it was someone else’s idea, or prove that we could do anything the same way a man could do it. Now it is time to let our strengths shine. Let’s look at the whole system and search for the win-wins across time and space. And you know that room where it happens? That room that we have worked so hard to get into? Perhaps it’s time to redecorate it.

*Edie Sonne Hall is the founder and principal of Three Trees Consulting, which provides expertise in forest carbon accounting, ecosystem services, green building, life-cycle assessment, and sustainable forest certification.*

## NOTES

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