Handpicked: Stories from the Field

Season 3, Episode 5 – "Resilient Communities for the Future": A GIAHS Designation for Agroforestry in Brazil"

Featuring Dr. Evelyn Nimmo

Transcript

Speakers
Amanda Di Battista: **AD**
Laine Young: **LY**
Dr. Evelyn Nimmo: **EN**

{[Intro music]}

LY: Hello and welcome to another episode of *Handpicked: Stories from the Field,* a podcast from the Laurier Centre for Sustainable Food Systems.

I'm Laine Young ...

AD: And I'm Amanda Di Battista.

In today's episode we will be discussing traditional agroforestry production systems in Brazil

LY: Agroforestry? What's that?

AD: Right, not everyone has heard this term!

According to the FAO, agroforestry is when trees are used on the same land as other agricultural crops or animals. The different components of the system are connected ecologically providing varied benefits. It's often with smallholder farmers to enhance food supply and income while improving health.

LY: Oh okay, that makes sense! So, what does this look like on the ground?

AD: Well, I sat down with Dr Eve Nimmo, a research associate with the Laurier Centre for Sustainable Food Systems and a member of the UNESCO Chair on Food, Biodiversity, and Sustainability Studies network. Eve works with community partners and researchers on agroforestry projects in Brazil.

In our conversation, Eve told me all about how those agroforestry projects are contributing to ecological resilience and community wellbeing while building better food systems. I'll let Eve introduce herself.

EN: My name is Evelyn Nimmo. I am a Research Associate with the Laurier Center for Sustainable Food Systems. I am also the president of an NGO called CEDErva, which is the Center for the Development and Education of traditional erva mate systems in Brazil. And a

researcher associated as well with a university here in in Brazil called the State University of Ponta Grossa in the Department of History.

AD: So, tell us about what you're working on in Brazil. I know that you've got a big project that you've been working on. I'd love to hear about it.

EN: Okay, well, about six years ago, I started working with these traditional erva mate systems, which are agroforestry systems that are traditionally used in southern Brazil to produce erva mate and erva mate is a tree. The leaves are harvested and roasted to consume as a tea, or some people in Canada, in the United States might know it as Mate, which is the Spanish name for consuming Chimarrão how we call it here in Brazil. And so it's a traditional tea that has been consumed for hundreds of generations, probably thousands of years, first by Indigenous communities and then later by the colonizers and settler communities.

And so, I've been working with these traditional systems from a kind of an anthropological and a historical perspective to start documenting the knowledge associated with these systems, because they're still used on small-scale family farms and in traditional communities and in Indigenous communities as well. So, despite the fact that they are a very old system, they haven't disappeared, they still exist today.

And so over the last few years, through the work of myself with my colleagues at the State University of Ponta Grossa and other colleagues that we have in various institutions, research and community organizations, we decided to put together a project to gain recognition from the FAO, from the United Nations, the Food and Agricultural Organization, to gain recognition for these systems as a Globally Important Agricultural Heritage System.

And this is a program that's offered by the FAO to really highlight those food systems that exist around the world that aren't only important from a food security perspective, because they bring traditional communities or small communities a kind of security to continue using traditional practices for food. But they also have an ecological importance. And also, there's traditional knowledge associated with it, there's cultures associated with these systems.

And so, it's a program that really recognizes the multifaceted aspects of traditional knowledge in food systems, right? And so, we decided that the traditional erva mate systems fit perfectly within these within the program. It started with the characterization of what these systems are, right? And so we had to describe for the FAO as part of our candidacy, describe what these systems are, how they work, who uses them, what's the history, what's the importance, what their impact is today on the communities that use them and also the region in which they exist and why- we have to explain why they're globally important, like why they have an impact not just on the community, but also globally in terms of agrobiodiversity and forest preservation and those kinds of things.

AD: Okay. So why erva-mate systems?

EN: Well, that's an interesting question, Amanda. As a Canadian working in Brazil, I had no idea what erva mate was when I moved to this country. So, it's been a process of learning, a lot of learning on my part. It's a food system that has a lot of cultural significance for people in southern and South America, really. People from Chile, Uruguay, Paraguay, Argentina, Brazil. They're very...

AD: Do you mean like. Like invested or attached or….

EN: Yeah, they're very attached to drinking Chimarrão or mate. Right. So, it's funny, people say that they'll go to the beach here in southern Brazil and you always see Argentineans on the beach drinking mate, hot mate! So, you know, boiled water in the gourd with the metal straw and everything, on the beach. So, it's very much tied to people's cultural identity.

But so, it has that kind of cultural significance for people here in southern South America, but people don't actually know that, first of all, it's a tree.

AD: Mm hmm.

EN: Second of all, that it grows naturally in the forest here in the Araucaria Forest in southern Brazil.

So, I became interested in erva mate because I started doing research on Jesuits from the 17th century who actually as colonizers and people who were doing a lot of missionizing of the Indigenous people in the 17th and 18th century, they created a monopoly of erva mate. And so from an economic perspective, erva mate was crucial to their success, the Jesuit's success in southern, in what was Paraguay at that point, but what's now southern Brazil.

And so, I started getting interested in the history of erva mate, and why it's become such an important economic and cultural factor in southern South America. But I also work alongside people who look at the ecology of erva mate. And so, after many discussions with colleagues and friends who work in the area, we decided to start working together because we realized that studies on forests, studies on the forestry aspect of erva-mate only answers certain questions, right? Because it doesn't consider the human element of these systems because there are systems that occur within the forest, there are agroforestry systems, which are very important for the continuation of native forests in southern Brazil, but they're managed by people.

Erva mate, because it has such a cultural link, and so many people, so many farmers have histories and memories that are very sentimental about erva mate, and in memories of harvesting erva mate with the family, with their grandparents, processing it on the farm, you know, it's these affective memories that people have of the past, but they continue to use these systems, right, and so, despite pressure, a lot of pressure to "modernize" these systems, farmers want to continue using their systems because they do have that cultural and this memory, right, those links to the system in the forest.

AD: So does the GIAHS (the Globally Important Agricultural Heritage System designation) help you protect both ecology and cultural systems that are important in the erva-mate forest?

EN: So, the GIAHS program, it's meant to support, not financially- it's a recognition from the FAO which doesn't actually come with any secure funding, right, so, it's a program that the FAO has developed which helps bring awareness and kind of more attention to these traditional systems.

And so, what the program attempts to do is to support the continuation of these systems in terms of the ecological importance of them, because they're very agro-biodiverse. Not all of them are agroforestry systems. Some of them are. Some of them are- for example, tea in China, in Korea, I think there are several designations for tea production in Asia. There's the ecological aspect of these systems, but also the culture is really, really important.

And not only in terms of the history and maintaining the history of preserving that or continuing those practices. But it's the knowledge associated with it as well, because generally that knowledge comes from the interaction between communities in an environment for generations. Right. And it's an empirical knowledge that that develops over time, which is very different from kind of a one-size-fits-all agricultural system where you can put it in any environment, right, and add as much fertilizers or pesticides as you want, and it will grow. But to have an intimate knowledge of a system, an ecological system, and how to use that system and to manage the system in a way that is sustainable, is something that the GIAHS program really looks to support the continuation of. Because they recognize that, I think with our changing climate, with the changes that are happening and this pressure from the industrial agricultural system to standardize agricultural production, this kind of knowledge is being lost. But it's really important for resilience of communities for the future, right.

And so, there's the cultural aspect, but there's also an aspect related to social organization. And so, these projects are community-led… they're community-based. You know, most GIAHS programs that are recognized around the world are a network of small-scale communities or small-scale farming communities, traditional Indigenous communities with universities, with public institutions, with local organizations. All of the actions that happen within the Dynamic Conservation Plan are based on the needs of the community. And so, they create a kind of solidarity within the community, and there's a lot of capacity building within the community for people to take leadership roles, for people to fight for the continuation of these systems in terms of public policies, in terms of local politics.

So there's the social organization aspect that's very important as well as a landscape perspective, right? Because, just to give you an example, most of the Paraná state was covered with forest until the turn of the 20th century. And now only about 1% of the forest exists as pure, kind of untouched forest in conservation areas. There's about 20 to 25% of the land cover is secondary forest, but it's, you know, never going to reach that old growth forest that existed, you know, 150 years ago. And so, maintaining forest cover is really important not only for the ecosystem services, but also for food security and also for continuing the biodiversity of the region, right. And so that it's part of a cultural landscape that's really important to continue to make sure that it exists into the future.

AD: You mentioned that there aren't any funds associated with the GIAHS program, can you tell me why a GIAHS recognition would be important for people on the ground in Brazil?

EN: So, what's really important about this GIAHS system is because it's community-led and because it's focused on the needs of the community, any impact that comes from this GIAHS designation, is meant to have a positive impact on the community.

And so, if we look at the erva mate systems in southern Brazil, the first thing that it brings is recognition locally. People here in southern Brazil do not recognize that erva mate, first of all, comes from here, is native to here, and that the best product that they can buy comes from here because the whole production chain hides that. And so, there's this kind of invisible-ization or the invisibility of the farmers in the process because the farmers over the last few decades have lost the autonomy to process their own product. And so, it's all done through large industries, which takes a blend of all of the products from the region, packages it up and sells it as a standard product, right. And so, there's no recognition that there is differences in quality, that there's differences in in whether something is organic or agroecological or not. And there's no one is

actually working on exploiting that either, exploiting, you know, in a good way, or using that as a benefit for small-scale farmers.

One of the biggest things, and I think the first thing that will happen is a recognition that these systems exist and that they produce a product that is much superior. That's one of the first things, is this conscientization of people to this understanding that there is a better product available and if the consumer wants it, that they could, they can find it.

And so there's likely going to be economic impacts for this, and so one of the aspects of our Dynamic Conservation Plan is really looking at this production chain that exists within southern Brazil and thinking about how we can create more autonomy for small-scale farmers in traditional communities. How can they be the ones who are processing or doing more processing of the plant rather than shipping the raw material off to the big industry? So how can they take back a little bit of power in this production chain so that some of the revenue that comes from erva mate production stays on the farm? Because right now, their products, they might get 20% more value from an industry because it's a better quality product- because it's organic or agricultural, but that's it.

So, we want to make sure that there is value added for them that is recognized not only because it's a better product, but because it has all of those other biocultural aspects to it. And I think from that, it's an economic argument, but it also creates knock on effects. Because one of the big issues that many of these traditional systems are facing is rural exodus. You know, young people don't want to stay on the farm. They don't particularly want to be traditional farmers or live in a traditional community because society sees them as being backwards and outdated and not modern. Because modern agriculture is conventional agriculture. That's soy, that's corn, that has big tractors and there's pesticides and there's fertilizers. And it's that standard kind of package. And so young people who don't see themselves as being successful if they continue to use the traditional system that their grandparents used, because it's not recognized by society as something that's of value.

And so, I think with those economic changes comes some changes in how people perceive these traditional systems. That they're not outdated. They're not ancient--well they are ancient--but they're not backwards. What we're trying to show with, you know, what is in the Dynamic Conservation Plan is to show that they're actually innovative systems that have a lot of potential and so that young people can see the potential for the future.

You know, they can see a potential for themselves on a farm that's not a life of poverty, but it can be successful. They can be comfortable, have better well-being for their family and for the environment and for the community. And so, I think one of the impacts we're hoping of this recognition is changing people's minds, you know, not only of the consumer, but also of the people on the farms themselves. And so that their food systems do continue, so that they do have a future, that people are willing to continue to conserve the forest and use these traditional systems.

AD: I love that idea of reframing what food system innovation looks like and how we value it. Because I think I mean, as you said, there's in conventional ‘modern’ agriculture, if there's a lack of understanding and if those traditions, that traditional knowledge and like deep ecological knowledge is stripped out, that feels like a real problem. That feels like a real lack of agricultural systems going forward and into the future, especially in terms of resilience.

EN: Yes, exactly. Yeah.

{[Musical Interlude]}

AD: Can you tell me a little bit about what the application for the Dynamic Conservation Action Plan looks like and how long that process is going to take? Is that quite a long process? You said it's very community-driven at this point

EN: Yes. So, the Dynamic Conservation Plan is part of our application package, we are sending to the FAO. And the process of developing that was it was actually quite difficult because we decided to start putting together our application, I think it was maybe June of 2020. So, in the middle of the pandemic, and it was really, really hard to do community-based, community-led discussions about what this system looks like and what are the challenges and what can we do to face those? Because we couldn't go to the communities, right. So, we developed this whole project and the Dynamic Conservation Plan using online meetings, and everything was done remotely, which was, which was a big challenge because there's a lot of… a lack of internet access, especially in rural communities and in Indigenous communities and in traditional communities. But on the other hand, we had the engagement and the buy-in of some very key people in the communities that we worked in who were basically our interlocutors. They were the people who showed up to the meetings, always, spoke for the communities, but they weren't speaking for the communities as someone who was removed from the community, they were someone within the community, who was very connected to the community, who's speaking for them. Because in that situation that we were living through, it was impossible to have those in-person meetings, right?

I think starting in about December of 2020, we started to develop this Dynamic Conservation Plan and it was based on a SWOT analysis that had been done in 2019. So, SWOT analysis is the strengths, weaknesses, opportunities and threats that people do kind of as a group work often in participatory research to highlight those things, the issues with the system, but also the opportunities and things that could be further developed.

So, we looked at all of the threats and the weaknesses in the system and all of the opportunities and tried to come up with actions and activities that would address all of these threats to the system and all of the weaknesses of the system, using the opportunities and the benefits of the system.

To give you an example, one area... we have broken our strategic plan into three strategic areas. So, the first is communication, the second is solidarity economy, and the third is sustainable development and ways of life. So, all of these things are obviously interrelated, but the actions are separated just to organize a little bit, our activities. Like I said, one of the biggest threats to the system is the lack of recognition of the quality of the product. And so, what can we do to solve that? So, one of the actions that we developed, it's actually a project that we've already started because as we were developing this Dynamic Conservation Plan, the communities, the farmers, they didn't want to wait for these things for the recognition to happen because we'd been talking about it for so long, right. So, we actually had to put in place some of these activities, which was a really interesting outcome actually of the process.

So, in terms of communication, one of the things that we are developing is environmental education with children and schoolteachers in we're doing a pilot project in one municipality that's part of the GIAHS candidacy. And so, this project is working with teachers and with students to create digital narratives that showcase the importance of erva mate systems in the community and in small-scale family farming in the community. Because we recognize that young people are told in schools that in order to be someone in life, you have to leave the farm, you have to go to the city, because success is in the city. So, in order to address that, that threat to the system, what can we do? We can start talking to kids in schools about why small-scale farming is important, why erva mate systems are important, why the forest is important, right? And what their family has to do with that. Like, how are they connected to those systems? So that's where the digital narratives comes in because they can talk to their grandparents or their uncles or their neighbours about these systems and then learn from people within the community about why they're important.

AD: So, how's that going? Tell me about that. That's fascinating. How is that digital narrative creation going?

EN: It was a bit rocky to start off with because again, the pandemic, it just made everything more difficult. So, most of the meetings that we had with the teachers and the Secretary of Education in the municipality were done online. But I think starting in the middle of this year, June-July, we started going to the community and really creating from the ground up, this project. And so that's been a really interesting discussion because when you talk to teachers about, you know, most of the teachers are women. And when you talk about, you know, doing a project about erva mate and family farming, you can't get people to stop talking because everyone has a story about their grandfather, about their father, about remembering when they were a kid going into the erval, you know, into the forest and helping to process the erva mate or drinking chimarrão or mate, you know, in the cold winter day, you know, so everyone has a connection to those systems and they were so excited to be able to share that. And the children were so excited to be able to learn about these systems and to talk about as well, their grandparents and their own family connection with the system.

And so, in I think it was November a few weeks ago, two of our master's students went to the community and recorded some interviews with people within the community. And I think the community just kind of fell in love with the project, which is which is really great. And so, we're in the process of putting together a website that brings together those narratives with the photographs that we've been taking so it can become a teaching tool within the local schools.

AD: That's incredible, so it sounds like even though you're still in the application process for the GIAHS designation, there's already been very tangible outcomes, community-based and pretty impactful outcomes for the communities that are involved in the project.

EN: Yes, we've been very lucky. We were lucky enough to get some financial support from the public ministry of labour here in Paraná, in our state. And so, we've managed to hire two technicians who have been working in the communities directly with the farmers, doing farm visits and really helping to recreate this community of practice, right. And so, connecting people within the communities with each other and across communities. And so, we've done several workshops. We've done what we call ‘knowledge sharing network’ meetings where we bring a bunch of farmers together and talk about some of the issues.

And so, one we had a few months ago in a municipality called Cruz Machado, I think about 50 or 60 farmers that showed up. We went to a property that has... the son of the property owner has started growing his own seedlings, right. So, taking seeds from erva mate trees in his forest, in his erval and cultivating them to make seedlings that he can sell, but also that he can replant in his own property. And the process of creating seedlings or growing seedlings of erva mate is not as straightforward as one would think it is. And it's not something that a lot of research and technology has been invested into.

To give you an example, it's only something that really started to happen in Brazil at the end of the 1970s. People really started selling seedlings. Right before that, it was all just taking seedlings from the forest and replanted elsewhere. So, it's kind of a relatively, not new technology, but there's still a lot of questions around how to do it, how to do it right. And still a lot of problems with disease and the seedlings not growing properly. And so, he was, this young man was showing the farmers his area of seedlings. And I asked him to explain his process and to talk about, you know, a little bit about what he does. And then a farmer asked a question, another farmer answered, and a farmer asked a question. Another farmer answered. We created a situation in which these farmers could talk about all of these issues together and share strategies, share practices, what's worked for them what hasn't worked for them, you know, what are some of the things strategies they use to make sure that there's they don't get the pests, what are the strategies they use for this or that?

And so, it was a really interesting dynamic to see that, you know, the researchers don't need to lead the conversation, you know, those conversations, they just need the space, kind of the impetus to have those conversations, which is really a community-building practice, right? Like it's, it's a way to start building those, rebuilding those community ties really.

One of the things that also I thought was really interesting about that event was the, you know, the young man- he said his seedlings were beautiful. And one of the farmers said, well, I buy this really expensive substrate that you're supposed to use to make seedlings. And the seedlings don't grow. They don't look anything like this. And he says, “where do you get the substrate from that you put in the little tubes, you know, for each seedling”, he's like, “oh, I just get it from the side of the road and...” and everyone's like, “oh okay- you don't buy?” “No, it's just from the side of the road” because the erva mate grows in poor soils and the soils that aren't really appropriate for other forms of agriculture. And so, the standardized substrate that you would use to produce kind of a regular seedling doesn't really work for erva mate but it was a really interesting discussion because and it was only later that that one of the technicians told me- it's because it grows well in poor soils. And so, you know, that's a technology, an innovation that most people don't know about.

AD: Well, you know, that example leads really nicely into my next question. And I think this whole discussion that we've been having about making space and prioritizing lived experience and local traditional Indigenous knowledges is really, really interesting. And I'd love for you to talk a little bit more about the way that the project really specifically prioritizes Indigenous and traditional ways of knowing in Brazil.

EN: Sure. Well, this has been one of the... another challenge of this project is really integrating traditional communities with Indigenous communities and family farmers, because these groups of people don't interact with each other. Right? Indigenous communities are particularly ignored when it comes to research and in agricultural food systems. Right. And so, one of the things that

was really important to us is to bring traditional communities together with Indigenous communities and small-scale family farmers, because they all use this system. They all have shared roots of why they use this system, shared history and memories and, in some ways, shared cultural practices and shared knowledge.

And so, it was important for us not only to bring attention to the Indigenous aspect of these systems, because we recognize that the only reason erva mate is a product in southern Brazil and South America today is because it comes from Indigenous knowledges that existed when the Spanish and the Portuguese colonized southern South America, right. And it's interesting when we think about the Indigenous knowledges, because the process of how to collect erva mate, how to process erva mate, how to drink erva mate hasn't really changed that much in 500 years! We can pretty much say that the process is the same. So generally, in traditional communities, in small-scale farms, the erva-mate tree is pruned once every 2 to 3 years, right. Because the tree needs time to regrow the sprouts, right? So, this is a process that a Jesuit recorded in 1610- that the Indigenous people went to the forest and they pruned a tree and left it for three years to come back, and it was a beautifully regrown tree. And so that time period is exactly the same, and it really hasn't changed. The kuia, which is the gourd that people drink the mate in, is an Indigenous technology. That's what Indigenous people are drinking mate in when the Spanish arrived 500 years ago. The process of drying the leaves, which is called Sapcar, which is it's basically a quick drying of the leaves over a fire, and then it's roasted and then it’s ground, is basically the same process the industry uses today, just on a much larger scale and using machinery. Right. But it's all the same process. And so, I think bringing attention to the fact that this knowledge has very deep roots and that it was obviously a very amazing technology because it hasn't really changed is really, really key to this project.

And I also think as part of a process of reconciliation, considering all of the things that have happened in terms of colonization and the decimation of Indigenous communities in southern Brazil, I think it's really important that we recognize that this knowledge was appropriated and that settler communities took on this knowledge, but it became a really important part of their history as well. So, we have to start having those conversations between these communities, right, to recognize that there is kind of a shared history and a shared knowledge, right, and value all of those innovations that have come since. And so, we recognize that this knowledge is ancient and that it has its roots in Indigenous cultures, but also that it has developed over time and in Indigenous communities and in traditional communities and in small-scale family farms. It's a process that's ongoing through the constant interaction with the environment. And so, recognizing that traditional communities and Indigenous communities use the forest and they use the forest in a multiple of ways. They use it for medicinal plants, for foods, food products, for erva mate, for firewood, to create a space for other flora and fauna to exist. And it is conservation for use, right?

And knowing or recognizing and valuing that knowledge that is associated with those practices, I think is really key. And it's been kind of the foundation of this project. And documenting it because that knowledge does not exist- to most research in conventional kind of agriculture, that knowledge is completely ignored and it's not integrated in any kind of systematic way into the research that happens kind of generally in the country. So, putting that knowledge at the forefront of all of the actions that we're doing, I think is really important so that it's recognized that it has a value, that it's innovative, and that there is a future there.

{[Musical Interlude]}

AD: So, what's next for this project?

EN: Well. So last week I submitted the final draft of our proposal to the Ministry of Agriculture, and from there it's going through a final okay. And it will be sent by the Ministry of Exterior Relations, International Relations to the FAO in Rome. We're hoping that in the next few months that the scientific advisory group that that evaluates these candidates will take a look at our project. And hopefully early next year, early 2023, we will get a visit from members of the scientific advisory group to get to know these systems and to see it in real life. Right. Because it's one thing to read the description and it's a very different thing to go in and visit these farms and to see the systems. But while we wait for this candidacy to happen, like I said, we're already putting the dynamic conservation plan in place.

So, we have lots of research projects on the go. We have lots of students who are very interested in working with the system. We have the Environmental Education Project, we have communication projects like the Voicing Change Project that we have with Laurier. So, we're trying to put the Dynamic Conservation Plan in play, I guess, and hopefully we can secure some more funding to continue for another five years.

{[Musical Interlude]}

LY: It sounds like Eve and her team have a lot to look forward to in the next few years.

The part that struck me the most throughout this interview was changing the mindset of the youth to value erva mate and agroforestry methods. How cool is it that an entire generation of growers can come from this?

AD: Yeah, my conversation with Eve was so inspiring, and I am super excited to see how this all plays out for them. Hopefully they hear soon if they will get the GIAHS designation, and they can keep doing the amazing work they're already doing.

{[Outro Music Starts]}

LY: Thanks so much for tuning in for this episode of *Handpicked: Stories from the Field.*

Special thanks to Dr. Eve Nimmo for working with us on this episode.
This episode was hosted and produced by us: Laine Young [**AD:** and Amanda Di Battista], produced by Charlie Spring and edited by Narayan Subramoniam.
This episode also features music from Keenan Reimer-Watts.

AD: *Handpicked* is produced with support from the Laurier Centre for Sustainable Food Systems, Wilfrid Laurier University and the Balsille School of International Affairs.

LY: Please check out our show notes for a bibliography, teaching tools, and links to other relevant information that we used to produce this episode. Make sure you check out our website for other ways to engage with us.

AD: This episode of *Handpicked* was recorded i*n Paraná, Brazil, on the ancestral lands of the Guarani M'Byá, within the territory of the Guarani Nation.*

In Canada this episode recorded and produced on the lands of the Neutral, Anishaanabe and Haudenosaunee people. We encourage you all to check the land acknowledgement link in the show notes to learn more.

As always, I'm Amanda Di Battista

LY: and I'm Laine Young, and this has been an episode of the Laurier Centre for Sustainable Food Systems' podcast, *Handpicked*.

AD: Make sure to tune in next time, for more freshly picked stories from the field.

{[Music Increases]}