Conservation Finance Roundtable

November 2-3, 2022 | 21c Museum Hotel | Durham, NC

Notes

Session 1 | Heirs Property & Implications for Funding & Financial Access

Moderator: Mavis Gragg, HeirShares - Moderator
Panelists:

- Brianna Bogan, Center for Heirs Property Preservation
- Alton Perry, Roanoke Electric Cooperative
- Savi Horne, Land Loss Prevention Project

Mavis introduced the session. She began by asking, what is heirs property? Heirs' property refers to generational land, land that is owed by family members who have inherited their shares. They own it as tenants in common. Heirs' property is often a challenge for the tenants in common to manage. The panelists chosen along with their organizations all play an important role in supporting generational family land.

Mavis introduced each panelist and asked them to talk about their work with heirs property.

Savi works for the Land Loss Prevention Project (LLPP). The Land Loss Prevention Project was founded in 1982 to curb land loss of black family-owned land in North Carolina (NC). Over time the mission and the work has expanded to provide comprehensive services for farmers and for land owners. She began her introduction by explaining that historically, African American farmers have been engaged in commodity programs as small producers. When the Land Loss Prevention Project (LLPP) came about, the focus was to be a task force to look at what was going on with land loss in NC, specifically, why African American farmers were going out of operations, and what can be done. The NC association of black lawyers were a driving force in addressing this, especially, GK Butterfield and Angela Bryant. They began to look at how we can use legal tools to arrest the problem and to advance the home share of those sitting with heir's property. With this in mind, they planted the organization strategically and the NC Central School became the organizational home for the LLPP. With this partnership, staff and students were advancing this work. LLPP has been working on the front of providing legal intervention to farmers and heirs property owners. Their work has strengthened as better laws have been put in place.

Brianna works for the Center for Heirs Property Preservation (CHPP). CHPP is a non-profit law firm based in South Carolina. They help families protect and keep their family land, and build generational wealth. CHPP has three buckets of work. The first is education. Education is a very important tool, CHPP strives to educate the communities they serve. The second is resolution for heirs' property through probate, estate claims, title action etc. CHPP believes it is important to enable families to work together to reduce land loss. CHPP assists in consolidation of ownership within families. The last bucket is utilization, this is where the forestry department comes into play. CHPP has two land holdings as a non-profit, showing practices in forestry and providing opportunities for the community to engage.

Alton was recently named the forest conservationist of the year. He works for the Roanoke Electric Cooperative. Roanoke Electric Cooperative was originally founded as an electric co-op, but as of 2013 also includes a sustainable forestry program. The company mission is to enhance the lives of the people they serve. The program has allowed owners to see their forest land as an asset. The sustainable forestry program aims to get African American forest landowners engaged, and using available resources, so that they can see forest land as an asset and engage with these agencies that are available to assist with management of the forest land. Understanding the value of forest land and accessing the resources to effectively manage them in turn enhances the quality of life of the landowners.

Mavis introduced herself. She is an attorney who most recently created Heirs' Shares. Heirs' Shares is an App that helps clear title for heirs' property owners. Clearing title of land has traditionally been very complex as it requires tracking ownership and unanimous decisions of heirs to the property. Heirs' Shares make this process much easier.

Savi made a note that the challenge for land loss is how to get heirs access to programs that exist to help them. The heavy lift was getting law written, but now the question is, how do we begin to use heirs' property statute? Savi suggests that we need to look at alternate documentation to gain access to farm services and conservation agencies. Work in family trusts, LLCs, and Tenants in common agreements, would enable a democratic process for families to determine how to use the land. The big challenges are how to get families the resources they need. She asked how we can get Historically Black Colleges and Universities (HBCU's) to offer schooling in how to help these issues.

Mavis highlighted this sentiment and stated that tracing ownership is a challenge, but proof of ownership is needed to get a track number. She noted that a lot of Savi's work has ensured that in the Farm Bill that there is a note for heirs' property owners to get their track numbers, which would open access to USDA services. Having a track number is also essential for receiving disaster relief should one need it. One cannot apply for disaster relief without their track number.

Mavis asked Brianna to talk about disaster relief, and the work her organization has done to support landowners.

Brianna talked about how resilience is an important topic for heirs' property especially within coastal communities. When it comes to hurricane relief, CHPP helps walk people through the application process and procedures to help landowners get resources. There is a lack of resources and landowners lack trust in the programs that provide services. CHPP recognizes this and likes to go directly to landowners to create relationships. CHPP also wants to make sure landowners are not passing down obstacles as legacy. It is important to ask, how can we be proactive, how can we make sure legacy is protected? CHPP offers free services to help landowners proactively manage land.

Mavis asked Alton to talk about fractionation in heirs' property ownership. A lot of heirs' property owners choose to dissolve disputes by dividing up land and this influences all of us, when it comes to conservation and resiliency. According to a study done by the World Wildlife Fund, families often want to keep property whole but are inclined to divide it up for simplicity, this has an economic effect on the family as well as an effect on the forest ecosystem.

Alton began by explaining that when you look at a map and see thin slices of land it is more than likely heirs' property. This is an issue because you often cannot qualify for certain programs or get into the timber market if you only have a slice. Fractionated land does not result in productive and healthy forests. Defaulting to dividing up land stems back to a lack of education on what heirs can do with their property if they work together. It is complex by default due to social issues and family dynamics. Roanoke Electric Cooperative sits down with landowners and talks about opportunities that exist for them. With more understanding around possibilities and understanding taxation, Roanoke Electric Cooperative aims to give landowners clearer understanding and hope.

Brianna noted that one strategy to avoid fractionation is to negotiate with the individual family members to cluster their pieces of land together. For example, 5 out of 10 kids come together to combine their land for conservation. This allows for opportunities that they would not have with their individual pieces alone. These opportunities open people's eyes to see the value of the land.

Mavis asked the panelist to talk about their thoughts on the relevance of family-owned land regarding solutions to offset climate change.

Savi began by stating that she has been thinking a lot about the heir's property re-lending program. Her mind goes to the nuclear solution – if you borrow the money and you default – what happens? The high-level solution is, why don't we begin to see the lending program as an intro into getting families into conservation. If the landowner borrowing the money could adopt regenerative practices, then this should become a forgivable loan because, you are really trying to catch up – these landowners have been shut out of conservation for a long time, how do they catch up? This would be a good way to do this. Also, reparations. Landowners could see the benefits that would leave open conservation finance in a different kind of way.

Brianna explained more about the re-lending program that is part of the 2018 Farm Bill. She highlighted the work being done by Jenni Steven, an heirs property program leader. She also noted the holes in the lending process, such as heirs' property owners' difficulty to get title insurance. Brianna found it interesting to utilize the Climate Smart Commodities program to expand the reach to small landowners and to assist them in keeping their land, as big agriculture incentives are taking over. The program is helping with technical support to assist landowners in keeping their land. Brianna sees this as a start, it opens the door to areas in the states where replacement is shadowed, enabling cost effective practices that engage communities.

Mavis noted that in the Inflation Reduction Act there is language for forestry and undeserved landowners. She clarified that heirs are not inherently underserved, but that effort in putting money into solutions to offset climate change for underserved landowners is important. She then asked Alton to expand on intersectional partnerships, organizations that have issues that intersect.

Alton highlighted that where there are issues that intersect, partnerships between unlikely partners are formed because of the intersection of issues. This is important because partnerships are key. To a lot of organizations, heirs' property is new, and they are moving through a process they don't understand. Partnerships are key for technical assistance. There are lots of other associated costs with heirs' property, organizations and NGOS can fill these technical gaps. For example, landowners need boundary surveys to move forward with conservation and they often cannot afford it, assistance programs can step in here to help the landowner move forward.

The panel then welcomed questions from the audience:

Phoebe Higgins, from the Environmental Policy Innovation Center, asked, what kinds of policy mechanisms would help challenges facing heirs' property? If you could wish for something that would help, what would it be? What changes in practices or interpretation of property would help?

Brianna wished that for any type of program with proof of ownership criteria, for them to think about how proof of ownership criteria could be unintentionally exclusive. Another wish policy would be to have dollars go to organizations that help landowners that have undergone the most harm. Lastly, property taxes, specifically collection and notice requirements. Often there are lots of owners and only one property address listed, resulting in lots of heir's owners not knowing they own property or must pay taxes, and then losing their land.

Savi wished to keep historic definitions alive in the fight for the Farm Bill. Definition is critical. Lawyers need analysis to get relief for clients. Legacy discrimination and its resolution matters. You can't expect 100 years of race-based law to go away. Definition matters.

Kari Cohen, NRCS, stated that heir's property has the potential to mushroom over time, he wondered how much work goes into proactively working with landowners to make sure there is clear title etc. – the proactive approach.

Brianna's organization goes beyond outreach. They take it to the doorstep but go inside and put it together, going into communities to do estate planning. Protecting legacy. How to provide direct services in indirect ways. Getting trust from the community and meeting them where they are.

Savi made a shout out that on 11/11/22 the National Black Food & Justice Alliance and Fam U are launching the first ever agro-ecology center at a historically black institute. It is an NGO and education collaborative and has a land tenure component. Collaboration needs to be more frequent to pull out resources. This collaboration raises money and provides resources.

Mavis closed by stating that legal communities have not been called to task to do heirs' property work, it has relied mostly on NGOs. She thinks we need to motivate the private legal sector to help with these topics.

Session 2 | Trends in Agriculture, Forestry, & Climate

Moderator: Claire Jahns, Scale LLC

Panelists:

- Katie Anderson EDF+Business;
- Dominick Grant, Dirt Capital Partners;
- Jess Phelps, The Lyme Timber Company

Claire opened by noting the power of subnational government. There are 24 states with active climate legislation to achieve the goals of the Paris Agreement. She noted the opportunity of land work in this effort. She has seen several trends in state policy, for example offsets and carbon accounting. She noted that many people are asking, how we can get to net zero with this actively changing offset landscape. State governments write regulations to support legislation in this space. She asked, how can we be creative and mutually support governments to get the most carbon sequestrations from agriculture and forestry and continue to work in this area to get us all to net zero?

Katie works with food and agriculture companies on climate ambitions, she helps them set and achieve ambitious targets. Katie asked what is climate ambition for the agriculture sector? By 2030 what can we achieve? EDF recently released a report on this topic. The answer: a 23% reduction in agricultural greenhouse gas emissions and a 43% increase in forest carbon sequestration. To do this we need to: 1 – reduce agriculture methane emissions, 2 – reduce nitrous oxide emissions, 3 – halt land conversion, 4 – increase forest carbon storage. We need to think about these buckets in the land and agriculture sector, and direct funding into these buckets. Katie also wanted to make a note on supply chain companies and how food and agriculture showed up there. Companies are being pressured by consumers and investors to set ambitious climate targets. This results in companies supporting farmer transitions and delivering climate smart agriculture. For example, Nestle provides technical and financial assistance. Companies are also providing technological innovation.

Jess works with forest conservation easements. His company is involved in forest carbon projects, mostly in the compliance market. His organization has been thinking a lot about the future of carbon investments, as well as regulatory trends. They have been looking at the economic tradeoffs of reduced harvesting. They are seeing interesting trends in pushback to large scale forest offsets. There are concerns over land enrolled in long term agreements from a land use perspective, for example 100 years. agreements that are tying up land in ways that are undesirable. West Virginia is at the forefront of the following regulatory trends that negatively affect conservation projects: disallowing forest owners from being allowed to enroll in programs; excess tax on revenue from forest offset programs, which makes projects less economically attractive; limit projects to 30 years, which is problematic. This legislation hasn't gained much traction but it's important to note that we could see these trends elsewhere.

Dominic works with farmers on land transactions at Dirt Capital Partners. He highlighted the effects of climate change on production agriculture– illustrating what county wide failed crops look like. Investing in regenerative agriculture is disconnected from the reality of production agriculture, for a couple of reasons. 1. Water! Conversation around water is absent in a lot of this dialogue. We need to think about the role of the actual farmer and land steward in these communities. There are whole landscapes where people are forgotten. Who is going to be implementing practices we talk about in regenerative agriculture? Dominic asked why does that landscape look the way it does? It's because farmers are responding to incentives, incentives driven by policy – 1 out of 4 seasons of crops are successful, the rest are covered by crop insurance - a system being propped up that is failing. We need to think expansively about what carbon finance could look like. Some examples are blended finance or marrying capital (return seeking) with public funding and philanthropic funding. He asked what makes sense from an environmental standpoint? How can we think about the incentives that farmers respond to?

Claire asked about the price of climate solutions. She noted that climate solutions are being sold very cheaply, and that 80% of GHG reductions come from conserving or planting trees. She asked, what prices corporate folks are using in the forest space and are they competing against international projects?

Katie explained that corporations that have supply chains that touch agriculture. The rules of the road are that you need to be doing climate work in your sourcing region. That being said, a lot of these companies are global, and actions in the United States look different than in Africa. Companies are not being transparent about what they are spending per ton of offsets. These trends are all in the insetting space. In the offsetting space, companies usually make a diverse portfolio.

Jess added that we are seeing companies perform due diligence on specific offset purchases.

Dominic spoke from his experience in the international carbon space and noted that there is a general trend away from broker mentality to companies that are forming long standing relationships with their own supply chain, strategic value to that, and a story and process they have control over. Large project developers are catching on to that.

Claire asked about water: Are we seeing companies merge carbon and water? What is happening in the water investment space?

Dominic explained how water is the front-line climate risk, water and temperature. Thinking about project risk, his company serves as a bridge to viable projects, performing extensive due diligence around where water resources are going. Tying it to carbon – regenerative agriculture is frustrated that it always comes back to carbon. What really makes a landscape productive in agriculture?

Katie added that water is critical to agriculture. Companies are thinking about it with regenerative agriculture, connecting it to but not overlapping with climate — nature based solutions — landscape scale approach to corporate action. Companies are being incentivized to focus on their one supply chain, but agriculture is a much wider landscape that needs to be considered. How can we encourage investments to flow at that scale?

Claire asked, what opportunities are there for the government in policy, budget, program innovation?

Dominic began with the idea of environmental infrastructure/natural infrastructure, taking it beyond theoretical, and looking at sources of funding — SRFs, other sources of public finance that historically have been directed toward gray infrastructure funding — thinking about all these pots of money that already exist as public funding, and reimagining what they could be directed to and how they could be infused with a climate perspective. IRA money is a great development.

Katie is excited about learning about public private partnerships in climate smart commodities, bringing forward and getting them iterating as quickly as possible. Another approach is to think about research and development: measure, report and verify. The government can play a role here, making climate accounting easier. She also thinks investing in technologies that we don't have yet is very important. Ex. methane emission reduction is very important but only 4% of public spending goes to research solutions.

The panel then welcomed questions from the audience:

Clare Billet asked Katie, have you heard of the biochar making initiative? The audience member also asked Dominic about the future and climate change.

Katie said yes, they are looking for any solution, so bio char is on the radar and is being followed.

Dominic said that projecting into the future and looking at what is an appropriate land use then working backward from that is important. It is also important to recognize what already exists there. It is not enough to look at a map and say what should be what. He believes there is more happening than people realize.

Andy Cole, New England Forestry Foundation, recalled Dominic mentioning using the PACE model for financing land practices – how could this apply to climate smart forestry?

Dominic thought this was interesting to think about using mechanisms from adjacent sectors, or appropriating mechanisms to solve and think creatively.

Lindsay, Conservation Fund, what are some case studies or good conversations for skeptics if we are gaining traction in that space?

Jess elaborated that in West Virginia, they are showing they are there for the long term, and they are doing the same thing in Pennsylvania. To address concerns over conservation easements they are making investments in loggers, and supply chain, and committed over the long term. Some loggers are opposed because they think it will hurt them, so we need to walk them through these ideas.

John, Croatan Institute, asked, in regard to the California voluntary and regulatory market, why is there not more of an effort for a national regulatory framework that has EPA principles? Why is the reliance on the voluntary market? It's still the wild west.

An audience member added that there is a massive investment in climate smart commodities, so it would be helpful to have some guidance.

Another audience member added that the Vermont Land Trust has been working on a statewide model but hasn't seen replication and is interested in hearing a policy perspective.

Claire responded by saying that we need to be seeing movement from farm to farm to scaled approaches, the government can fill in here. She asked, how do we start building components to get to the north star.

Dominic added that national cap and trade with agriculture is a piece of federal policy. He thinks that the corporate sector has stepped in to make up for lack of clarity in firm government. When it trickles down to farm level, what's important are the financial incentives, this is what people are responding to more than regulation. The agriculture sector has been excluded from legislation, Clean Water Act etc., so this will be a tough act to sell to regulate this.

George Kelly from the EPA financial advisory board stated that billions of dollars in IRA need to be spent. Can we coalesce to look at disadvantaged communities' space, and to tie to the low standard of GHG emissions.

Jess thought we should look at opportunities for co-benefits.

Katie thought we need to stop thinking about carbon markets exclusively. We have a unique opportunity to fill a gap in the system.

Claire added the example of how California used community lead projects to drive the transformative climate communities' program in California.

Session 3 | Introduction to Climate Smart Commodity Initiatives

Moderator: Vincent Gauthier, EDF
Panelists:

- Cameron Wallace, TruTerra;
- Kelsey Billings, Field to Market;
- Audrey Epp Schmidt, Propagate Ventures;
- Andrea Colnes, New England Forestry Foundation;
- Jesse Daystar, Cotton Inc.

The USDA is offering funding and financing for climate smart commodities. There are interesting partnerships by both corporate and non-profit organizations to utilize this funding to address climate changes and promote nature-based solutions. The Trump administration set up the Commodity Credit Corporation under the USDA and the Biden administration is using the same funding – 1 billion has been allocated which turned into an investment of 3 billion with lots of flexibility on how it can be spent. This flexibility also led to increased criticism of this program and has been used in examples of wasteful spending by both political parties.

Each of the panelists had about 5 minutes to make remarks about their programs/applications that utilize this funding.

Andrea from the New England Forestry Foundation mentioned the family forest carbon program and utilizing forestry for carbon sequestration. 84% of all carbon sequestration is on privately owned forestlands. Many publicly owned forestland in the west is at high fire risk. So they proposed a climate smart commodity partnership (for $30 million) to incentivize landowners to use climate smart practices and grow mass timber. Recent modeling shows that improved forest management could meet 30% of New England's carbon reduction goals. Their program aims to use landowner incentives payments to cover costs of climate smart practices similarly to clean water revolving funds. These incentive payments can eventually be repaid when it is time to harvest the wood.

Jesse from Cotton, Inc. spoke about sustainability in the cotton industry at all stages in the supply chain, from agriculture, to textiles, to manufacturing apparel, end of first life, etc. with a focus on finding more circularity. Through funding for climate smart commodities, they are planning to set standards (in a protocol) for sustainability for cotton that can be used by brands and producers to tell sustainability stories. This protocol would set up 3rd party verification, cost-shares for producers to lower transition risks to climate smart practices, data-tracking, and potential to sell carbon benefits to downstream partners as scope 3 emissions reductions. They spoke about how many companies are making science based targets but they don't know how to make those targets a reality. In this protocol there is also preference for working with folks from historically underserved communities.

Cameron works at TruTerra, connected to the Land-O-Lakes 100 year old cooperative and large agricultural business. It is the largest distributor of crop inputs interacting with over 1/2 or a 1/3rd of all cropland in the United States. They outlined that many row crop growers, dairy producers, and associated companies are getting more interested in how crops are grown and what kind of carbon mitigation and sequestration is possible. Their climate smart commodity grant is to move beyond carbon to general soil health and farming sustainability. They want to build a scalable program that increases resources to crop and dairy producers to make them more successful in the climate transition. This can be tricky when many growers are coming from different starting points, some folks have cover crops others have no idea how to do them. One of the challenges is that growers who have been doing climate smart practices for a long-time don't qualify under additionality rules for carbon programs. They also set up a soil health institute to broaden access to soil health assessments and offer technical support to growers. The program with TruTerra aims to partner with underserved farming groups.

Kelsey outlined that Field to Market is an alliance of organizations which includes growers, large agriculture businesses, individual brands, community groups, etc. Their partners in the alliance cover the full supply chain. The alliance offers partners the opportunity to learn from each other about sustainability. They also have a platform for farmers to measure environmental impact for 11 crops across 8 indicators. In 2020, members identified barriers of adoption of climate smart practices for producers – and financial barriers and transition risks were key for them. With this in mind, Field to Market is working on innovative finance opportunities. They have 12 blueprints / methods developed that utilize a range of financial mechanisms including blended private and public funding, sustainable bonds and loans and lower interest rates, risk sharing crop warranties, pay for performance, and leasing incentives with cost shares. As part of their climate smart commodities project they plan to partner with TruTerra for growers metrics and data that can be used in tracking and applications for innovative finance.

Audrey from Propagate Ventures outlined their work in the agroforestry space. For their Climate Smart Commodities project they are using suitability models for agroforestry using GIS, build 30 year financial models, offer financing to plant trees and technical assistance for tree-planting project development. They have an ongoing partnership with The Nature Conservancy and are giving out $40 million in incentive payments to landowners directly. They are promoting windbreaks, alley cropping, silvopasture, and other methods across 30 states. They are building a menu of options for growers as well, highlighting that agroforestry is a frequently underutilized tool.

After each of the five minute introductions, the panel moderator opened with a few questions.

1. *How are producers going to choose between all the new programs and choices? How are folks in the climate smart commodes collaborating or competing?*

Cameron outlined that a farmers first stop is the local co-op or large agriculture retailers. The people there are folks that they trust, so those co-ops can be hubs and clearing houses for these programs. However, there is some competition in the space for talent. Frequently small local communities have few folks with the capabilities and expertise to run these programs.

Andie spoke about how an opportunity for collaboration is coming up with common metrics to measure forest greenhouse gasses, working together on incentives, monitoring, and reporting.

Audrey mentioned that the USDA made all climate smart applicants meet annually. That meeting could be an opportunity for folks to better collaborate and build a conference for partnerships.

2. *Across all of the projects, we are trying to get resources to underserved groups. How can we solve barriers these folks have had in the past with USDA, being left out of carbon markets, etc.*

Andrea mentioned that they are building partnerships with first nations. It is also important to work in rural communities that are resource dependent.

Jessie outlined that it is complicated and difficult to get into farming. There is also a history of exclusion, so few farms qualify as 'underserved'. They are also partnering with HBCU's to build mentorships and engagement in the industry around crop production.

Cameron said that access to technical assistance and financing is a big gap for underserved groups. Also folks can't do all the best practices at once, they need to try one at a time and then only expand if it is successful. This is why it is important to make sure the support is there to ensure success. They are working with the American Farmland Trust to partner with women farmland-owners.

Kelsey is working with the tribal agriculture council to build supportive programs. Audrey is working to build extra qualification points for applications for incentive payments for undeserved producers. They are also working with Tuskegee University and the University of Missouri indigenous groups.

The audience Q&A:

Defenders of wildlife in Florida asked about trends of paper mills closing and it is hard to build forestland commodities when you can't sell the final product. Andrea talked about other markets that can be utilized instead of paper – sawtimber has higher value, there is also mass timber technology that can replace concrete and steel, (cross-laminated timber). Sawtimber is also better for ecological reasons.

There are a lot of food and agriculture companies that are not participating yet. How can these practices and new programs be scaled quickly? Jessie said that as part of the cotton trust protocol they are reaching out to 20 brands and there has been good demand in the apparel space but getting the right targets and matching support is important. Cameron has a clientele of customers already, but they are seeing more engagement from those companies. Some companies have sustainability staff and are farther along while others have no idea how to start thinking about targets and how to meet them. New rules around scope 3 emissions are evolving and driving engagement.

The final question was if each person could wave a magic wand to fix the hard parts of their work, what would it be? Andrea said that many forest projects are not a 5 year proposition - it's a 20 year one - but 5 year contracts are a reality for many smaller landowners. Jessie said that modeling carbon in soil is hard and uncertain and different for different crops, so they would like to have a simple metric for everything. Cameron would want good data for their models – this involves getting good data from farmers into the tools we need. Another challenge is managing the human resources / staffing side of things, where it is difficult to have enough staff time to do everything especially in small areas. Audrey said that it is hard to build forward-thinking contracts that involve scaling up, clustering across geographies, and delay in the maturation of projects.

Session 4 | CDFI's and Regenerative Agriculture

Moderator: Catherine Godschalk, Calvert Impact Capital
Presenters:
- Emily Sloss, Self-Help,
- Tomie Peterson, Intertribal Agriculture Council

Catherine, the moderator is from Calvert Impact Capital who has a history of lending to CDFI's (community development finance institutions). They are interested in how to move capital to have conservation and renewable energy impact. There are ideas to use debt instead of equity and hold the risk that commercial lenders don't take.

Emily spoke a bit about Self-Help, an organization of credit unions, with a new ventures fund, does policy advocacy, and has a CDFI branch. They have 70 branches and over 200K credit union members. In the CDFI space they have been working on food systems, lending to small food businesses and promoting equitable access to food retail. After this they started to move farther up the value chain to work with folks historically excluded from agriculture lending.

Tomie spoke about the Intertribal Agriculture Council which was started in the 80's as an economic assistance network for producers. Currently they are working on policy in the upcoming Farm Bill. They also have a CDFI which works with indigenous agriculture communities and are based out of South Dakota. They currently have a $12 million portfolio and are focused on building wealth for communities more than managing risk.

After brief introductions, Catherine set some CDFI context. There are over 12,000 registered CDFI's with most working as loan funds. Fewer than 10 CDFI's are actively working in agriculture, and most of those are real estate lenders for grocery stores. This means that there are a lot of opportunities for CDFI's to bridge financial gaps and address some challenges previously mentioned like Heirs' property lending issues.

Catherine asked the panelists, *How can we bring finance resources to these programs?*

Emily said that many underwriters for agriculture lending say it is too risky, and that most agriculture producers are considered well-served already. However, this frequently leaves out rural communities of color. Also Internal credit policies don't really align with USDA programs. They require a certain amount of credit in advance. This can be a challenge since heirs titles as collateral while they work to solve ownership paperwork didn't feel sufficient. However, there is interest in changing internal systems and USDA programs so that the constraints can better match.

Tomie spoke about how all reservations are considered credit deserts. A big challenge is a lack of know-how. It is important to find folks who know underwriting and how to teach underwriting. Agriculture is a high capital-intensive industry and many CDFI's have the ability to think about risk differently than traditional banks. They are working to combine grant funds with other lending tools. There is a heirs re-lending program under farm service agency with the goal to help address heirs property problems. However, it is still a challenge to reach the people that need it the most and CDFI's can partner with other organizations to make bigger projects and bigger land deals.

The heirs' property challenges can be difficult to overcome. In traditional lending you cannot get title insurance without clear titles. Many banks have written many folks off as non-credit worthy or too risky. So the ability to take the capacity of financial intermediaries who have capital and history of leveraging public dollars can be the tool to move private capital out to local communities. But, most CDFI's don't know how to underwrite agricultural risk.

Catherine asked the panel, *What are some of the other obstacles in this lending space? How to co-finance with commercial banks to fill gaps?*

Emily spoke about internal discussions at Self-Help to find the right partnerships with other CDFI's, highlighting that peer-learning is a much needed tool. Tomie also mentioned some potential partnerships with a California farm, Virginia organization, and training with other native CDFI's.

There was another question on if regenerative practices are part of the requirements?

Tomie mentioned that some CDFI's can be used for investment models which give agriculture more time for practices to kick in. Building equity is the first key and then giving producers time to use the practices and see the results. Many regenerative practices can be put into balance sheets: helping folks identify if they are saving fertilizer costs and if better soil health can be increasing land value.

Another audience question was on how it can be hard to know the lending resources in the area for forest landowners. Many forest landowners don't know who to reach out to. It can be hard to get a loan for a 20 year crop. The panel discussed how CDFI's could be a tool for this since there is a president of long loans with housing projects, however more work could be done. There was an idea to have a whole mini-conference of CDFI's at the next roundtable.

CDFI's can be more flexible and diverse in types of work than banks. How can farms organize themselves?

Catherine mentioned that their organization does enterprise-level lending to funds or structures or intermediaries. Sustainable agriculture is now a consistent space in the emerging markets portfolio, and is a hot topic in the sustainable investing crowd right now. However, it can be hard for them to find intermediaries to lend to who are doing this work.

There was a lot of celebration in how CDFI's were able to get COVID dollars out to local organizations very quickly who were credit and cash strapped. Now the federal government is trying to get environmental funding out quickly and it may be that CDFI's are the right vehicle again.

When looking at the nuts and bolts of financing to get $1 in gov funding to $1 on the ground requires boring infrastructure. There are people building relationships, underwriters, portfolio managers, etc. The CDFI industry has evolved in a grass-roots way and there is a massive opportunity for efficiency gains in areas that have not been traditionally lended in. Identifying risk and expanding lending infrastructure is key. One of the promising things is that CDFI's have accountability to the communities they are serving as part of their regulatory requirements. Past successes can be seen in how funding from the greenhouse gas reduction fund was utilized. Also the small business administration just gave a lot of money to 7 CDFI's in the rocky mountain region to focus on more rural and agricultural spaces.

Session 5 | Innovation Roundup: New Projects & Initiatives

Panelists:

- Josh Humphreys, Croatan Institute, Soil Wealth Areas
- Jackson Moller and Julia Mettler-Grove, CFN Forest Service Partnership
- Carina Bracer, National Forest Foundation, Innovations for Implementation and ILF on PublicLands
- Clare Billett, William Penn Foundation, Biochar/Fodder-Based Working Stream Buffers
- George Kelly, Quantified Ventures, Earth Recovery Partners

Josh from the Croatan Institute spoke about their soil wealth areas and conservation innovation grant with USDA and NRCS. This new program is based on work from Delta Institute in 2019, and looks at regenerative agriculture across asset classes. They mentioned that there is a growing group of partners involved in the soil wealth community and there is an idea to establish special 'soil' districts that could become place-based magnets for regenerative agriculture investment. This idea would be modeled after or structured like existing watershed districts. This is a $2.2 million project with 25 project partners and 40 farms across the west coast, southeast and upper midwest.

In North Carolina they have run feasibility analysis across the eastern coast, piedmont, and Appalachian areas. By utilizing existing land security financing (that has been leveraged for infrastructure projects in the energy sector) can now be used for more agricultural features. However, there is a challenge of the sheer number of counties to involve, there are over 100 more counties in North Carolina than in California. If we are looking to administer these programs like water districts at the county levels, the number makes it challenging and many farms straddle county lines. However, they are working on governance models and have consultants to set up the programs. Overall, the providers of capital need to know new ways to consolidate things and landowners need to know how to access these different kinds of capital.

Jackson from the CFN Forest Service Partnership spoke about how the challenges of drought, wildfire, flooding, pests, inequitable access, etc. means that the need for money frequently outpaces demand. In the conservation and environmental spaces there is an overwhelming reliance on private foundations and public money. So they are thinking about what kind of new tools and resources can be leveraged for these challenges? One of the common themes they have encountered is that a lot of environmental resource professionals have the skills and expertise but could benefit from a professional coach. These coaches can help professionals understand different financing opportunities with the Cooperative Forestry Program, Forest Legacy Program, Community Forest Program, partnerships with governments and tribes, and utilize the recreation economy for rural communities and financing access. They are also setting up general knowledge sharing across professionals through webinars that cover SRF's, carbon credits, case studies of patchwork financing, etc. They are also setting up some cross-sector solutions that are not in the conservation realm to see what environmental professionals can learn from affordable housing financing.

They offer different types of coaching and technical assistance for webinar attendees including an advisory board and private sessions to help develop attendee projects and ideas. They want to set up a community of practice where attendees can learn from each other and collaborate across different forest practice areas.

Carina from the National Forest Foundation spoke about compensatory mitigation on NFS lands. The National Forest Foundation is a congressionally chartered non-profit to support the federal forest service. They establish partnerships, collaborate, raise funds, hire companies to do work, and get things done. They spoke about their ILF program to restore and establish wetlands in national forest system lands in Colorado. They are using the Clean Water Act process for permittees to invest in offsite mitigation. This process works by permittees who purchase credits for mitigation, then NFF works with national forests to identify projects for restoration, then in 3 years funding is used in a management and maintenance fund.

They are exploring the use of revolving funds as up-front financing to set up restored areas for sale. This restoration is considered ‘low-tech’ such as setting up beaver dams but does require hiring on-the-ground experts and contractors with engineering and hydrology expertise. Compensatory mitigation does require long-term site protection and cannot have non-wetland uses, so MOU’s are established between USACE, the Forest service, and NFF so that everyone can work together to meet clean water act stipulations. It is also a challenge to make sure that credits are not sold before the project has been sited and is well-underway with an advanced design plan. You also cannot sell across service areas, and you have to know the true-cost accounting of the restoration before selling the credits. Water rights are also important considerations, you need to make sure that there can be no water diversions above the wetlands. Flow agreements and long term leases into perpetuity are needed. However, there are a few questions to think about when developing this program – the costs need to include all design, implementation, and construction – nationally owned lands with no land costs may create artificially cheap credits compared to non-federal wetland banks, what kind of other ecosystem services are prioritized, etc.

Clare from the William Penn Foundation spoke about Biochar/Fodder-Based Working Stream Buffers. This program is nested in a 10 year strategic plan for water quality in Delaware river valley. They are aiming for climate mitigation and resiliency upstream and DEIJ work downstream. However, it can be challenging to incentivize the installation of riparian buffers at the commercial scale. There are costs of setting up 100-150 buffers with native trees and shrubs when farmers can get more funding for setting up commodities closer to streams. An idea to create more direct revenue from the stream buffers in addition to the ecosystem services they provide is to utilize the biomass produced as biochar which can be sold to pay for buffer set up and maintenance. Biochar can be used to improve soils, forests, can be buried as a carbon sink, and be used as a building material. However, in any nature-based solution, additionality can be hard to prove and hard to scale across multiple farms.

George from quantified ventures spoke about Earth Recovery Partners which is a financial advisor shop at the enterprise level. They want to build a hub for investment and innovation for environmental enterprises. These enterprises are financially underserved or the funding that they do get can take over the core ownership of the enterprise. So they want to set up a performance based advisory to drive revenue and networks. This hub can be an incubation space for nature-based solutions, environmental markets, and technology that applies to both. They spoke about an example in Cambridge MA called Blue Oyster that processes and aqua farms millions of oysters a week. There is a nutrient sequestering market in Maryland already, so they can get revenue from selling oysters directly to consumers and get funding from nutrient trading. With this new funding they were also able to acquire a hatchery so they became a more secure and vertically integrated enterprise.

George highlighted that the Patagonia business model – of earth as number 1 shareholder can't be achieved by everyone, but the business as usual turf dynamics is also not serving us. How can sustainable businesses be a tool to solve our climate challenges? There is a company in the Colorado River trying to address water scarcity with a gravity fed irrigation system that saves 50% water, uses less carbon, but has large upfront costs. In Europe, some companies are using agricultural waste for floorboards. How can grazing be more sustainable – some companies are using collars on cattle for virtual fencing. How can mitigation banks be used to capture carbon and store it? They ended with the idea that there are a lot of opportunities for enterprise and project focused work to improve our environmental state.

At the end of the session, EDF showed a short video about how farmers in North Carolina are dealing with the effects of climate change (droughts, hurricanes, flooding, etc.) and improving their livelihoods with climate smart farming paired with financial metrics to track climate smart agriculture practice success. EDF partnered with N.C. A&T Cooperative Extension agents to provide technical expertise and farm management plans for cover crops, reduce tillage, (preventing air and oxygen mixing improves soil health), field buffers for major storms, and tunnel infrastructure as season extenders that can control insects and water used. All these practices increased income, reduced fuel usage, cut back on fertilizer and insecticides.

Session 6 | Great Lakes Playbook for Project Origination

Panelists:

- Mike Piskur, Conference of Great Lakes and St. Lawrence Governors and Premiers
- Bill Schleizer, Delta Institute
- Steve Cole, Great Lakes Protection Fund
- Leigh Whelpton, Conservation Finance Network
- Jackson Moller, Conservation Finance Network

Leigh Whelpton introduced the session and the speakers introduced themselves and their organizations who have worked on the Great Lakes Playbook for Project Origination.

Mike introduced his role and the Great Lakes and St. Lawrence Governors and Premiers as an organization. The Great Lakes and St. Lawrence Governors and Premiers was formed to work together to manage the region around economic development and environmental degradation. The Great Lakes are the single biggest freshwater resource in the United States and there is a need for environmental initiatives for restoration and protection. While there has been green investment including from the Great Lakes Restoration Initiative, Great Lakes Protection Fund, and others, the question is how to get more capital involved with funding. About three years ago, the Great Lakes Impact Investment Platform launched with TNC and UM to try to position the region as a hub for both investment and as a region for environmental and climate projects. Mike described the big picture of the playbook as addressing, how to showcase current projects like green bonds and green infrastructure, how to drive additionality, and how to attract more capital for environmental projects. The conversation around the playbook is continual and actionable – it is meant to be improved.

Bill introduced himself and the Delta Institute as a nonprofit and project developer in the Great Lakes Region. He noted that from that perspective, there are “great things” in the Playbook report.

Steve introduced himself as the VP of programs at the Great Lakes Protection Fund and the organization as an impact Investor for the Great Lakes region. Great Lakes Protection Fund invests in “innovations and risky ventures” that may create scalable change in the region.

Leigh recalled that the Des Moines roundtable was used as an open forum for forming the Playbook and for ground truthing assumptions and then gave a brief summary of what the playbook contains. In building the playbook, the main focus was on NGO perspective for how to actually spur project origination. The intent of the playbook is how to support project development to address the most pressing social and ecological challenges in the region. A disclaimer was made that this is a small effort in a very wide, complex set of topics, so the playbook report is a catchall rather than a specific set of guidelines – analogous to a multisport playbook.

Findings included in the playbook are strategies for coordination and collaboration and strategies for systemic change. Strategies for coordination and collaboration include making specialized knowledge more accessible, building up a community of practice around project development, investing in project/partner development, and readiness for project origination and financing. Making specialized knowledge more accessible addresses reducing time and expense of securing alternate forms of capital, and low pay in public support. To-do in this aspect is to invest in some sort of research hub to find sources of funding and financing initiatives. Building a community of practice around project development involves keeping conversations going so that when an RFP comes out, conversations around it are not brand new. This will be a focus in the Chicago roundtable in 2023. Investing in project and partnership development, especially predevelopment support refers to the work before ever getting to an investor. Readiness for project origination and financing includes having projects met underlying conditions and recommendation is to create a project and offset supply facility. Leigh emphasizes to read the report, it covers all these topics in detail and notes surprised to find that EIP and others have put time and funding into project opportunities so there is incentive to spur development before opportunities for return.

Strategies for systemic change include setting a regional agenda and driving incentives around it, prioritizing risk management over returns, rewards for environmental and social benefits, and innovation with procurement, contracting, and related policies. Setting a regional agenda suggested to help reduce staff split and streamline diffusion of skills. Prioritizing risk management over returns addresses the mismatch between the way private capital and NGOs think about risk – how to address risk to get private side advocates without them sticking out their necks. Like a pooled capital or credit fund. A reward for outcomes may not be present, so how to connect rightsize potential market/project activities. Looked at Maryland as a model, how to reduce friction with government procurement and demonstrate success in project outcomes. Leigh then passed the mic to Steve to talk about how they are already funding projects and predevelopment.

Steve replied thanks, in appreciation of the Great Lakes statistics that Mike started with and added more of his own about water use, population, GDP of the region to give background for the region as a national asset. The Great Lakes Protection Fund (GLPF) looks at risk differently than impact investors because they look for a positive impact on the ecosystem, invest in teams generating positive outcomes. There are challenges in the region, some addressed, some works in progress. GLPF tries to be early into projects and solutions to try to get projects moving forward so that they can keep moving forward. The goal is to create markets for policy and social change. Current portfolio contains 22 projects with different theories of change in each one – the goal is to be on the leading edge to address problems that are still being worked on. The GLPF works in three areas today – reducing contaminants from the urban landscape, challenges to the ecosystem presented by agriculture, and invasive species.

In reducing contaminants from urban use, stormwater credits and markets are a current focus, including the storm store system used by Chicago Metropolitan Water Reclamation District and power source tracking by Watt Time. Another focus is green infrastructure and how to finance it through not just capital but maintenance phases because municipalities have a hard time with maintenance values of a fixed asset. In agricultural challenges, GLPF looks at regenerative agriculture in all forms, beyond just soil health. This includes social strategies for retiring farmers to hand over land to farmers committed to regenerative agriculture, forestry agriculture, and regenerative dairy grazing. Invasive species work includes recognizing 25 years worth of work to reduce invasives and slow their spread, and now challenge is to identify and control colonies that could spread, especially in Lake Superior.

Great Lakes Protection Fund has $15 million invested in 22 projects currently. In each one impact is maximized, the Fund is an early investor looking to build community for pathway investment to lead to policy and larger investments. They build strategies so teams' work can be scaled to larger impact – communities of practice are a central part of their investment strategy. They are investors willing to take risks others won't have the chance to see a larger ecological or social impact.

Bill stated that the delta in Delta institute means change, which is unpopular. Delta Institute's goal is to make change in the Great Lakes region easier and Bill referenced a graphic that was then described by Leigh as a snail shell with capital in the middle, playbook strategies in the spirals. Risk capital needed in the region is real, Great Lakes Protection Fund is one of very few investors to take that risk. Bill described his work as running "into walls over and over again" to see what will work and what won't in order to find solutions to problems. The Playbook is a method of making that process more streamlined because many organizations in the region are trying to do the same thing, but not everyone is working from the same book and they all need to be trying the same things. The Great Lakes Region needs a "spine, something pulling the region back together" and risk capital and private-sector buy-in and investment are a big part of that. Once initial work is done, potentially with credit enhancements, investors need to run with it, but not in a short-term tech solution, rather long-term systemic ecosystem management.

Leigh added that the bipartisan infrastructure bill is a big opportunity, but the barrier isn't availability of the money, it's getting access to it. She asks the panel how to think about predevelopment support, risk capital, or "walking around money" that helps a state land trust association ready constituent land trusts for that funding availability.

Steve noted that the infrastructure bill is slightly untraditional and different from SRFs. Obvious in the region that clean water SRF funding has been consumed almost entirely by the largest, richest communities in the region. Equitable access to SRF and infrastructure bill funding is something that GLPF is intentional about – expensive to enter the SRF conversation so how can they help reduce costs to enter that pool. At this point Steve described a project he asked to keep in the room, but will probably be a topic in Chicago.

Leigh part of the Great Lakes Investment Platform was that it was meant to pick up momentum and additionality on its own; if that was version 1.0, what is 2.0 to develop regional scaling?

Mike initially piggybacked on Steve's response about access to funding and how to expand that access before addressing Leigh's question. There is a "club" of groups and organizations who have resources and are able to access those larger pools of funding, so how do we bring these other smaller groups into the club? With regards to Leigh's question, there is opportunity around natural climate solutions like reforestation, afforestation and similar tree protections. He envisions a major initiative around natural solutions and using his organization's strength in creating regional momentum around a goal to push to natural climate solutions. The Governors and Premiers meet every two years, with the next meeting in October 2023, so that's the next opportunity to launch this kind of initiative.

Leigh wanted to pick up on an aspect mentioned earlier about running into brick walls. What she and Jackson coach for project development is trying many alternatives at once, "throwing 17 options at the wall knowing only one will stick" instead of getting stuck on one thing at a time. Capacity building that hinges from that method of trying multiple pathways – comment on capacity and confidence and support for organizations, especially NGOs, to try many projects and fail many projects in order to find a single winner.

Bill stated that from the NGO perspective, failure like that isn't an option. NGOs have to have everything in place in order to come for funding at all, there just isn't the room to fail. He asks how do we get VCs and the tech mindset to fail in the nonprofit world, since this handicaps nonprofits. Nonprofits can't use the same high-risk funding as the private sector, except Steve – ask him for money. There is a systemic problem with money flow, and we don't have "walking around money, the failing forward money" that is needed to solve the issues being dealt with. Nonprofits have to get the investor to trust, as compared to the private sector where it's easy to get funding at the "maybe it will, maybe it won't" stage.

Steve concurred with Bill and is disappointed that more funders don't do what the Great Lakes Protection Fund does to provide funding that allows NGOs to explore and fail and provides that initial capital. Noted that Great Lakes funders see his organization as odd because they don't require a work plan up front, but they're trying to push for a more open mindset with funders to get that upfront capital that is required to even get a project started and to be more flexible in their funding strategies.

Q&A

Comment (no name introduced):

What we're talking about is classic development finance, and these functions are lacking in this country. The ingredients listed in the playbook are integrated into development finance institutions – designed to be low-cost, high-risk tolerance – and we don't have those here. As a community, the Greenhouse Gas Reduction Fund is an opportunity to bring those monies forward into lending places that can serve a lot of the functions we're talking about.

Q (Claire Jahns) for Steve:

Perspective on why he would choose either loan forgiveness, lost loan guarantee, or recoverable grants as mechanisms to de-risk and assist people getting bolder in applying for SRF money?

Steve replied to take conversation offline, but the structure envisioned would be to make loans reimbursable from an SRF grant. Essentially would make bridge loans, but with provisions for forgiveness because not every application for SRF funding is successful. The obstacle is that community risk exists, and how can underserved communities justify spending $20-40k on an application when it may not be successful. He wants to incentivize the application, but the risk is there.

Bill commented that he loves the SRF, but it is not aligned with the goals of on-the-ground projects. There is a disconnect between the formulas for application and what is needed. They are still hard (gray) infrastructure-driven, not towards the change we need like green or natural infrastructure.

Q: Bill Holman mentioned that in North Carolina there is little state and local capacity to go after funding, what is the Great Lakes region like – how can they draw down more federal funds? And for Steve: after hearing for years about impact investors more interested in return than impact, is that still the case with his organization and in the investor community?

For a state perspective, **Bill** said watch what Michigan does to organize. They are "phenomenal" at full-state pushes for federal grab funding.

Leigh suggested looking at flipping the proposal farm, making regional pushes for federal funds, matching funds instead of state-by-state.

With respect to the impact investment community, **Steve** remarked, GLPF is unique. Generally, the impact investing community is looking for a financial return, and may look for a basis point discount in exchange for impact, but still looking for return. That might change with rates increasing at the Fed. The Great Lakes Protection Fund is unique because the fund was created with public dollars, loans from the states created the endowment, which is why the organization is able to not need a return and can focus on impact.

Q: From the audience, **Bill Holman** related that in North Carolina regulatory drivers are important to bring people to the table, what are those impacts in the Great Lakes?

Mike responded, Lake Erie is the best example, there is an agreement among the states to reduce eutrophication and nutrient pollution.

Bill continued, the Great Lakes has unique infrastructure. There used to be a basic training, because even in that region no one understood the setup with international and interstate agreements. This infrastructure is not leveraged enough for outcomes – potentially due to lazy management – and it should be used more to continue to move forward beyond water protection.

Steve added, the Great Lakes Compact is the largest instrument for management, it rides along with the water quality agreement, which then provides direction for investment strategy for the protection fund. Some high-level interstate agreements that direct regional management

Leigh's last question for time is an active brainstorm for what would be meaningful topics to address at the Chicago roundtable in the spring.

Steve's knee-jerk reaction is how to fund and develop projects – predevelopment, planning loans, and planning structures.

Bill agreed with Steve. There is $20 billion in funding from congressional acts, and communities are not ready. There is more work to be done to get places ready to do something, predevelopment is critical. There is a lot to learn from the private sector community and how can we activate that funding and approach?

Mike had similar thoughts – project development and funding for small land trusts and governments, how can they access these funds? Would dolphin tank format work to ask them what their barriers are? Made a plug for a report from University of Michigan on regional carbon storage potential that has both nature-based and engineered solutions, will be posted November 17th.

In the same vein, **Leigh** said the next CFN report looks at Maryland's conservation finance act and what that looks like for speeding N_2O reductions cheaply.

Leigh thanked the panelists and closed the session looking forward to Chicago.

Session 7 | Policy & Agency Updates

Moderator: Mac Cloyes, Blue Forest Conservation
Panelists:

- Tim Wingington, The Freshwater Trust;
- Nathalie Woolworth, USFS;
- Kari Cohen, NRCS;
- Kristin Thomasgard, DoD REPI

Mac introduced the panel and noticed the incredible policy expertise at the roundtable. He noted that it has been an exciting year for state and federal funding.

Kari works for the National Resources Conservation Service and leads the projects branch team. They coordinate the regional conservation partnership program (RCPP) under the Farm Bill, Conservation Innovation Grants, a wetland mitigation banking program and a public access program. RCPP, of 2021's Build Back Better, was a big deal and came back with a vengeance with the IRA. RCPP integrates all the activities of NRCS into a single program. It does a lot of things including easements, and watershed structures – public works activities, flood reduction structures, water supply. It is a cool program with lots of complexity. With flexibility comes complexity, all IRA money needs to be spent by 2031 – which is an incredible challenge. He also noted they need to simplify, with more carrots and fewer sticks. He noted that RCPP will get easier and better to participate in, and it will encourage people to apply.

Kristin works with the Readiness and Environmental Protection Integration program (REPI). REPI facilitates projects that help to ensure compatible land use around military bases. DoD is dependent upon large landscapes to support installation and operations. REPI also does natural resource and habitat work. The density of endangered species on DoD land is larger than on any other federal agency land. REPI can partner on projects on military installation resilience. This includes watershed protection, and green/natural infrastructure that can help the installation but also critical infrastructure that those installations are depended upon. There has been a big increase in climate funding in the DoD. This has allowed REPI to conserve a lot of land. This has looked like going back and layering on restoration activities, resilience projects, on already protected lands. Ex. erosion control measures. Kristin is also the lead for sentinel landscapes. Sentinel landscapes are a collaboration between DoE, DoD, and DoI. It is a landscape scale collaboration that looks at opportunities for NR enhancement, climate resilience, and recreation. It asks how we can do things together on purpose, not by accident. Their authority was expanded in 2019 to focus on resilience. They are now looking at different ways they can leverage DoD dollars. Ex. Predevelopment and capacity building. They have a lot of flexibility. Sentinel landscapes has great capacity building. The pre development fund allows them to go after big dollars, they can fund coordination capacity, to access even bigger dollars. That’s what DoD can bring to the table. They also facilitate several federal partners, ex. the land water conservation partnership - DoD can be a non-federal match. The other place they are looking to make investment is to add climate resilience capacity within sentinel landscapes through climate coordinators. They are getting ready to roll out the next application cycle for Sentinel Landscapes in Western landscapes.

Jonas works with the U.S. Forest Service (USFS). USPS manages 193 million acres of public lands, 9 admin regions. He represents the conservation finance program, a small team of three. There are three focal areas within their program: 1. Enabling conditions, 2. Project development, 3. Capacity building. With so much land comes great responsibility: 60 million Americans get drinking water from national forest lands. Fire risk and recreation are also top concerns for USFS. There is an underlying tension, the agency is undergoing a major shift, they are going from resource scarcity to abundance, and are not well staffed to absorb funding. The money is coming from the Great American Outdoors Act and the IRA. Wildfire risk reduction is the focus of a lot of that funding. He noted some important updates regarding conservation finance: They are launching the Innovative Finance in National Forests (IFNF) program. Solicitation for projects is coming up. This will provide funding and technical assistance for projects impacting U.S. forests. It will use innovative financing models. Projects can be of three types: R&D, scaling, or pilot. They also launched a carbon partnership program.

Tim works with the Freshwater trust. Tim explained what they do through an example on the Snake River. The Snake River has water issues! How do we get to the root causes of those challenges? What is big enough to solve this problem? We need a solution that works. What are those fundamentals? Buyers, people wanting to participate, supply chain, technology. How is all of this happening? Coordination, policy work – the current conservation funding system is not set up to solve these challenges. We have issues of fractional ownership, financial burden in the wrong place, a project by project system. So, what do we do? What is a coherent policy response? Freshwater Trust uses an outcomes-based framework, in particular within the public funding system. How do we make it simple for people to participate? An outcome-based system allows you to unify people and quantify this now. Buyers can come together, then they can apply for SRF funding, and buy projects fast, moving money in the system. We can't afford not to get these results. They have been working with senators' offices to design the watershed results act. The act creates an outcomes fund that uses finite resources and gets results. It gets all siloed funding sources together to form a conservation economy.

Mac asked the panel for one recommendation to improve one of their programs.

Kari thought that the issue of match was important. At NRCS they are starting to rethink it. The notion that you must have money before you can even get into the game is misguided, there are lots of orgs that cannot pull together this kind of money, so it is biased against small organizations and historically underserved communities. As a government they are trying to solve problems, but putting up these barriers before you can even get money is not great. Kari thinks it is important to take the match concept in another direction.

Tim thought the government should treat the environment like you treat the DoD otherwise. It's a national crisis and requires attention as such.

Jonas thought that partnership agreements need attention to enter long term financial commitments where people need most help. If the forest service could put some long-term skin in the game, financially signaling, they are in, it will assure stakeholders.

Kristin thought that DoD can be an interesting partner because they appeal to folks in congress who may not be overly inclined to support climate legislation. If we see a change in congress DoD will continue to get funding and do work on climate resilience. Because it is about risk management, they can appeal to a different audience. She would love to see endowment authority; they can front funds for long-term management of natural resources. This is something that REPI can do.

Question from the audience: Could you comment on resiliency? Does it include climate mitigation? If you do include mitigation in resiliency, are your programs thinking about that?

Kari explained that RCPP language is very narrowly focused. Their project must prioritize projects that sequester carbon and reduce GHG.

Jonas explained that in the USPF, resilience is not associated with things like infrastructure and adaptation, but he thinks the tides are turning internally.

Kristin added that DoD has a huge focus on GHG reduction, but they do not have specific targets yet. The Navy has goals to be net zero carbon. DoD does a lot of things that produce GHG emissions, many are unavoidable. Kristin explained that there are ways to invest in or incentivize additionality in current projects to increase carbon sequestration, but they do not have clear targets at this point.

The **Audience member** clarified that she considers carbon sequestration to technically be mitigation.

Tim added that an outcomes lens is helpful here.

Ken, Sentinel landscapes, they have partners with RCP grants working with landowners on easements who have been waiting for years – when will this be resolved?

Kari offered that delays and slowness associated with easement plague all entities. The Farm Bill created 4 new easement programs which slowed things down, but they are at a point now where things should be moving more quickly.

Josh, Croatan Institute, NRCS is listed as a partner, could you explain how this partnership works?

Kristin responded by explaining that the sentinel landscape partnership is a higher-level coordination. NRCS is an active funding partner. Sentinel landscapes are co-funded by

NRCS at a national level. At all levels, there is effort to co-fund and invest in that capacity across the board. The trick is how it is being integrated.

Michelle Lovejoy, EDF, prefaced her question saying that there are a lot of innovative tools that fed agencies must do to sustain partnerships. Through her experience working with partners, it's always the same partners at the table – is there any talk across the fed agencies on how to do training with underserved communities, to move forward with sustained funding that bigger NGOs have been providing historically?

Kari offered that there is a lot of energy behind justice 40 funding, but it doesn't happen without sustained unique efforts. There are now more mandates to build capacity than they ever have before. We need more and larger orgs that do that work. All he could say was that he can see that there is a lot more sustained energy and importance from higher ups.

Jonas added that he sees two pathways from his perspective. The DEI branch of the national partnership office has been engaged in an inventory process to seek out new programs' partnerships, orgs, and implementing orgs, to dip into gateway communities. This is the nudge they have been waiting for to invite them to the table. He continued to say that conservation finance is a result of local partnerships. These partnerships help the local community access the funding structure and capacity building cycle.

Kristin ended the discussion saying that the DoD recognizes that their challenge is in the outreach. It is hard for them to be trusted and to help landowners sign up for programs. DoD has realized they need to get dollars to the organizations that can do this work to get money out to the people who are in need.

Session 8 | Financing Natural Infrastructure

Panelists:

- Leigh Whelpton, Conservation Finance Network
- Phoebe Higgins, Environmental Policy Innovation Center
- Vincent Gauthier, Environmental Defense Fund
- Tee Thomas, Quantified Ventures

Leigh introduced the session, stating she is standing in for Eric, who just left TNC NatureVest for Macquarie asset management, an Australian bank that owns significant infrastructure in the United States and around the globe. Market signals indicate multinational investment banks are standing up natural infrastructure investment, like the DC Water Environmental Impact Bond in 2017. The DC EIB is a push for green infrastructure over gray and just recently was repaid and is now paying out dividends.

Tee Thomas introduced herself, she currently works for Quantified Ventures and previously was the Water Finance Director for the state of Vermont. While in that position she rewrote the SRF literature to include natural infrastructure in an attempt to “get out of their own way” and use the leftover dollars that were unspent on other projects. She described her team at QV is made up of former SRF directors – the “disgruntled directors” team – all who were frustrated by the lack of resources and lack of capacity present in the SRF program. From their inside view of the SRF, there was no view of conservation finance space as a changing or dynamic space, which was the catalyst for them to jump ship to quantified ventures, who are willing to try “weird stuff” from a financing perspective. SRFs are a black box, there is tons of money in these systems for Clean Water Act purposes that could be used for far more than just pipes and pumps. She stated her goal at QV partnering with Vincent and EDF is to make the connection between SRFs and natural infrastructure, to create that funding connection and financeable repayment streams. The goal of the program is to give loans, not grants, and there are lots of disconnects but there is mission alignment and significant overlap with SRFs. The program is not looking for white papers and webinars, the money is here now, they are looking for watershed coordinators who can handhold through the process of applying for SRF loans and make them more accessible for natural infrastructure. “The revolution is now.”

Vincent introduced himself and is working with Tee and on the Mississippi river one water plan with EDF. The Mississippi one water plan focuses on upper basin agriculture and nitrogen pollution reduction and lower basin flood resilience through natural infrastructure. The focus is on a one-river strategy that accomplishes both goals, and the EDF team modeling infrastructure placement concluded that strategic placement in the upper basin on 1-5% of land can get both flood reduction and nitrogen loading reductions of 30-40%. With Tee and QV, the focus has been on how to get projects to SRFs. On the flip side of that, making SRFs easier to navigate with more practical and easier eligibility for natural infrastructure projects to get more on a regular basis. This includes a list across states for eligibility for natural infrastructure to be constant and so that eligibility is consistent across basins to impact programs. A few SRF deliverables: ensure they can work with lenders, especially private entities (ineligible in NC), providing subsidies for natural infrastructure projects that may not need a subsidy in the future (lower cost pilot), and working on rankings criteria to consider benefits of natural infrastructure to make them higher priority in selection process. In short, project goals are to create a cross-basin strategy for interstate financing and accessibility, and SRFs are engaged directly to move that needle. Ended with a call to please read the EDF and QV report “Financing Natural Infrastructure Solutions in the Mississippi River Basin.”

Leigh commented that the Iowa SRF has one of the most progressive and flexible SRFs in the country and the ability to democratize insight into how the program works could help to collectively improve the SRF process. The importance of practice-oriented insight and the key point of democratized access to insight were underscored.

Phoebe introduced herself and her organization, the Environmental Policy Innovation Center (EPIC). The goal of her program is to speed up conservation outcomes by pulling policy levers to raise the profile of restoration of degraded landscapes. The program goal is to spotlight restoration activities – it doesn’t make sense that restoration processes have to see the same permits as development processes. Encouragement of faster processes and streamlined permits makes more sense. Some approaches include pay-for-success models like outcomes models. Outcomes models essentially allow the government or authority to purchase beneficial outcomes, permitting more private finance into projects. The private sector brings its own financing, the government just buys the end product. The examples given were two Maryland projects: clean water commerce act and conservation finance act, both pay-for-success models that are popular and well-designed. Community assistance is another tactic used by EPIC, and is a method of meeting capacity problems created by the new infrastructure acts coming down the pipe. Education and training for organizations to apply includes how to use SRFs as matching funds – counts as a non-federal match – and using SRFs as loan guarantees. Tribal inclusivity is also key, as tribes are important partners with contributions to make, but policy tends to leave them out of the conversation for multiple reasons.

Leigh commented she was “mind blown” by the fact that SRFs can be used as matching funds – that is a massive bucket of unmatched state funds.

Q&A
Q: Leigh Asked about the role of advocacy in pushing forward natural infrastructure finance.

A: Vincent responded that EDF is a large advocacy organization that has the capacity and relationships with SRF programs or others to engage solutions, so he strongly believes in pushing for policy change. How advocacy manifests is another question, this could be through public affairs teams meeting at the state level with consultants. EDF has strong connections with agricultural organizations and others and can leverage these connections to bring together other players in support of changes to state infrastructure policy. As a large organization, EDF looks to get multiple partners in the room working through concerns to move projects and policies forward.

Leigh refocused the discussion on SRFs, asking about EPA funding for capacity and technical assistance gaps and special funding provisions for water technical assistance to disadvantaged communities.

Tee responded that there are set asides under the Drinking Water SRF for free funding and financing, 50% of those funds have to be free. On the Clean Water side, there is a small amount, on the order of 1-2%, set aside for technical assistance specifically for wastewater projects.

Phoebe chimed in about the DOT culverts program, explaining that the program to replace and restore roadside culverts is a billion-dollar grant program fed through a million-dollar pipe. It will be slow and there is a massive tribal component, particularly in western states, where EPIC is hiring for a position to work with tribes directly on accessing those funds. She connected back to the infrastructure bill, and the opportunities for mitigation banking and credits that are available with that program and how to include tribes in that conversation. The default is to waive sovereign immunity to access federal funds, which is the wrong path to pursue.

Q: Bill Schleizer asked about the new round of environmental finance centers coming under the EPA and environmental and technical assistance associated with them.

A: Tee responded that the new environmental finance centers include $100million of technical assistance and that the EPA has $500million to use shortly, with hopefully more to come, so there will be a lot of technical assistance funds available. There are proposals for natural infrastructure, and some interest in looking at the nexus between natural infrastructure and under-resourced communities.

Leigh chimed in to describe environmental finance centers and what they do, giving credit to the UNC (University of North Carolina) EFC for being more practically oriented where EFCs have traditionally been academically oriented. UNC is actually working outside of academia.

Q: Bill Holman stated that North Carolina will make another run at getting SRF funding for private nonprofits, but what are some best practices for taking advantage of SRFs?

A: Tee responded that every state is different, but in North Carolina's case the SRF is 100% utilized – every dollar spent is loaned out. She recommended that the NC SRF should be leveraged, as it is "a AAA machine" with perfect credit ratings, so leveraging the fund would create some serious money to do lots of work in climate resilience. The problem from her view is that SRFs have been traditionally run by engineers, since that's how the program started, rather than finance people and transitioning from pipes and pumps to innovative and flexible programs would make a significant difference. She pointed to the Iowa and Indiana SRF changes made to be more flexible. The bottom line was that state conversations are unique, so there has to be a unique approach to each working with each one.

Elizabeth Schuster commented that SRF non-application has been a strategic problem from an organizational perspective, there's a gap in strategic partnerships and planning that doesn't have to do with innovative financing. She worked looking for innovative financing solutions with TNC, and was impressed with Vincent and EDF's work on the Mississippi since she and TNC struggled to find resilient natural infrastructure funding.

Leigh closed the session with a call to stay tuned for Chicago and dismissed all to lunch.

Session 9 | Dolphin Tank

Presenters:

- Phoebe Higgins, Environmental Policy Innovation Center
- Renata Rimsaite, Daugherty Water for Food Global Institute at University of Nebraska

Dolphins:

- Tee Thomas, Quantified Ventures
- Vincent Gauthier, Environmental Defense Fund
- Carina Bracer, National Forest Foundation
- George Kelly, Quantified Ventures
- Gary Matteson, Farm Credit

Project 1: Outcomes Purchase Fund for Riparian Forest Buffers in Chesapeake Bay
Phoebe Higgins, Environmental Policy Innovation Center

Phoebe introduced the project, a fund that would be used as a revolving fund to finance riparian forest buffers (RFBs) to filter nutrients in the Chesapeake watershed. The fund has a revolving fund structure, a steering committee, local outreach arms, urban and rural plans, and how-to guides for structuring these kinds of projects. Nitrogen and Total Maximum Daily Loads in Chesapeake Bay are a problem, there are multiple commitments to reduce them, but these goals will not be reached by 2025. The financial model Strawman is the part that she and EPIC really want feedback on.

Barriers currently faced include a lack of regulatory drivers, public funding programs have enrollment hurdles, localized use of other BMPs, lack of capacity for nursery and planting, wariness of private landowners, and lack of initial capital. Most of the work done has already been done on public land, so private land is the next step and this is proving troublesome. As far as regulation goes, there is some MS4 compliance incentive towards water quality goals, and there is potential for clean water acts and programs in several states. Benefits of riparian forest buffers compared to other practices in addition to nutrient reduction include wildlife habitat, flood resilience, carbon sequestration and prop value increase. Only Maryland so far has met their RFB goals, others have yet to hit them, with an estimate of a $50 million annual price to hit nutrient reduction goals.
Solution that EPIC has created is an outcomes purchase fund, capitalized from various sources. The fund would solicit bids from RFB projects, select bids, and complete contracts. Once projects are completed and outcomes are verified, the fund, a state, or agency could bid on the outcomes with the price floor set by the fund's bid. This is designed to be a one-stop shop to not compete with other buyers and to streamline processes. There would be loan carve-outs or another system in place for environmental justice-related priorities. The idea is for the program to be statewide or regional.
Questions that Phoebe and EPIC would like to ask the Dolphins include:

1) What's an approach to establish verified and attractive outcomes for a program like this?
2) How can we help bidders through the project phase? Can the outcomes fund help with front-end cost?
3) How do we ensure environmental justice outcomes? Are there any examples to draw from?

Tee answered first, stating that this kind of project first of all is needed and timely and mentioned that outcomes-based purchases have been made through Pennvest. SRF's can invest in projects but cannot buy outcomes. Contracts could be in place for collateralization, but the contract is assigned so that if there is a bump in the road, the outcomes will still happen. From the water quality perspective, this might be a big opportunity to align statewide goals and get the state as a buyer. She brought up an example where the challenge was that state funding was repayment/reimbursement based, so the project had to be bought and then the state would repay. USDA and SRF funds were used as interim funding, and Pennvest was open to it, but the lawyers were wary of it.

Vincent answered Phoebe's 3rd question about environmental justice outcomes. He asked about the steering committee, is there anyone on it that is representative of the EJ community in the region? If not, that is a spot that needs to be filled, that kind of representation should be built into the steering committee. Another option is to set engagement rules for the fund to interact with the EJ community – set clear instructions for who to talk to, how to talk about the projects, and how to incorporate their priorities and feedback. The goal is not to go for approval, but to create something with those communities. Funds set aside for mobilizing EJ communities also is another option.

Carina added that EPIC could access and work with the populations in question through community outreach to bring actors into the project. She commented that Vincent hit the nail on the head with this. She also added that verified outcomes sound like a tough way to go, there needs to be some sort of global analysis of benefits.

Gary addressed the steering committee as well, asking about the demographics of it. Are there one or two active skeptics of the project or the land use? These perspectives could be instrumental in working with large landowners and in identifying perspectives of agricultural communities and potential problems down the road as well.

Opening things up to the general crowd, **Leigh** addressed the second question. She added that if they are paying for the outcome, then there is some sort of revenue source to help pay back the project phase. There could be an overhead setup that then is recouped paying for the outcome.

Claire Jahns added that she has experience working in this sort of thing through a water fund. The project would recruit money from municipalities and money from the MS4 permits. Essentially they would pay for the outcome, and the municipality would pay the fund back. This is a model that could work and is similar to this idea for getting the nutrient work done.

George Kelly answered with the EEP program as an example, which was one of the first outcomes programs in the country. He then also addressed question one, stating the fund needs to set guidelines for what gets counted and what co-benefits exist. There needs to be guidelines for what's practiced and required, but also that other attributes can be valued that might create liquidity in the marketplace. In addressing question two, creating payments that are at a percentage of contract completion rather than all in could get chunks through at a time as objectives are reached. As far as EJ outcomes, adjusting a price score could be an option. Use a sliding scale from 0-1 and include EJ as a significant factor in project selection, so that a score with an EJ factor would be much higher than one without. This was an effective tool in the EEP program for this same need.

Project 2: Agricultural Water Risk Management Initiative

Renata Rimsaite, Daugherty Water for Food Global Institute at University of Nebraska

Renata introduced her project as having two distinct parts. The first part outlines miscapitalization of agricultural water risk in land values in the western United States. The second part is a water stewardship initiative related to part 1.

The miscapitalization of water risk in agricultural land value is tied to water risk and climate change. Large investment in irrigation and water supplies for agriculture are based on 50-year-old hydrology that is outdated. Areas that are currently farmed are not going to be viable in 50 years, so agriculture will be riskier both to producers and to lenders. There is a knowledge gap, lenders are not incorporating future risks in lending decisions. Access to water and irrigated production is done based on historical and current conditions without impact of climate change, and conservative institutions like agricultural lenders need evidence of higher returns by taking into account change and are unclear on how to structure frameworks to include it. Renata is looking for feedback on 1) finding ways to educate lenders and engage with them 2) finding investors looking for investment opportunities and 3) other options to address this problem.

Part 2 is a water stewardship initiative related to part one, addressing the needs of agricultural producers in the face of climate change. She is part of a team working with Valmont, a large irrigation company, that has the largest data on irrigated agriculture globally. This data includes 90,000 points on irrigation equipment in the United States alone, detailing what is used, when it is used, and how it is used. The task is to figure out how to use this data to generate an ESG program with benefits to growers. Is there a way to generate something like a FICO score for water use in agriculture to quantify good water practices and create a benefit for doing so? Something that could be done to capture and quantify change on a landscape scale and that could be validated. The product could be similar to EDF and the Farm Business Network that provided a stewardship score used to offer discounts on loans. Financing would be through lending institutions and investment funds, costs would include existing loans and a performance based sustainability contract. Questions here include 1) would this approach be appealing to stakeholders 2) who could provide funding and 3) what weaknesses do you see in this project?

Gary answered part one on miscapitalized risk that there is a lot to learn from lenders, and the difference between short-term and long-term decisions on the value of land. Different loan types exist and looking at one or another will change incentives and costs. A short-term approach to repayment capacity might be more suitable to encourage a change in behavior.

Tee addressed part two rewarding stewardship that innovation in western water is in scarcity management. As far as who could provide funding, potential for upstream irrigation district practices changing and selling rights downstream. There could be opportunities if you look for upstream opportunities with downstream rights.

Vincent addressed miscapitalized risk first. He echoed Gary in that educating and learning at the same time is necessary. EDF did a global survey of agricultural lenders to get insights on climate risk and opportunities – where there are gaps in resources, tools, and models to think about future risks – that is coming out soon. What opportunities does Renata's team see for an institution to support borrowers as climate risks become more important. Stranded assets could be an opportunity as well: if a borrower goes to get a loan, at what point does new infrastructure need to be used or need to crop switch due to water availability and what model needs to be used to evaluate the risk of infrastructure to the lender.

Gary added here that how long it takes to pay off the irrigation facility itself matters. For incentivization, could pay the landowner or operator differently. This would de-risk both the borrower and the lender, and could be achieved through private credit enhancement or USDA guarantors for riskier loans. A choice between private and public credit could be given to incentivize irrigation improvements.

Vincent continued with the water stewardship project, thinking that the loan fund could be compared with the farmer's business network. It could be interesting for the lender because long-term relations mean trust and could build the incentive through that trust. A third party would take on the purchase of the rebate if the producer meets the outcome of water use reduction but based on the rebate. If they don't meet it, they still pay the rate or someone downstream could buy the water, kind of like an outcomes-based purchase.

Gary added the criticism of the pay-the-farmer approach is that if you stop paying them, they stop doing it. Could test this theory with investment coming up to provide an incentive to keep saving water. It's a different play than the equity capital side with credit enhancement and may be more reliable through multiple rate markets.

George added his take based on working on the Colorado River. State law on water rights is "byzantine" and hard to figure out and generally when folks benefit instream flows, the water just goes to the next downstream user. These dynamics make payback difficult. Maybe they can create a regional benchmark like a credit score tied to water use of the region. The example given is western slope farmers looking at crop switching from alfalfa to Kernza – what is the benefit and where are the analytics to analyze the change? Same thing with moving to drip irrigation compared to the current method. The benchmark would determine crediting.