

Conservation Finance Practitioner Roundtable

April 25-26, 2018 | McKnight Foundation Offices | Minneapolis, MN

Day 1 – Welcome and Introduction

To begin the Conservation Finance Practitioner (CFP) Roundtable, Kari Cohen of the USDA Natural Resources Conservation Service (NRCS) thanked Leigh Whelpton and Allegra Wrocklage for their hard work putting together the 5th convening of the Roundtable in Minneapolis, Minnesota on April 25th-28th 2018. He also thanked the approximately 60 attendees for taking the time to participate. Kari then spoke about the new and exciting ideas coming out of the Conservation Innovation Grant (CIG) program.

Leigh Whelpton of the Conservation Finance Network then addressed the crowd. She thanked the McKnight Foundation for hosting the Roundtable in their beautiful offices, and the CIG and NRCS for bringing together recipients of the awards, as well as other leading thinkers and practitioners in the field. She noted that the next Roundtable will take place on September 20th - 21st in Washington D.C., and that everyone in the audience should mark their calendars.

Leigh remarked that the Roundtable is a forum for exchanging ideas. This session is bringing together CIG recipients and other innovators to share, learn, and work through common challenges. The aim of the meeting is to support early project models, and so the audience can learn how to better foster early stage projects. Leigh noted that the content in the Roundtable meetings is additive, and the conveners are always trying to figure out how to build on prior collective lessons. Yet, it is important to constantly bring in fresh perspectives and ideas. In fact, 70% of the room is new to the Roundtable series. The general concept of the 5th Roundtable is to collect insight from foundations, agribusiness, and institutional investors on where there are opportunities to embed conservation values.

Everyone in the room then briefly introduced themselves.

Opening Remarks

Speaker: Kate Wofford (President – McKnight Foundation)

Kate started off by welcoming everyone to The McKnight Foundation offices. She spoke about the significance of the old mill building that houses the McKnight Foundation offices in relation to the lasting impact that agribusiness has had in Minneapolis. The McKnight Foundation looks at this relationship as a model example of how foundation investing should be thinking about their impact. In 2004 McKnight made a big change in how it deploys its \$200 million in investment capital. They decided to apportion 80% of their portfolio at market rate and a smaller portion for concessionary high impact but lower financial return investments, known as PRIs.

The Foundation has committed a full 10% of its portfolio to impact investing, and 1 in every 4 dollars within its total portfolio is mission aligned. This is a departure from traditional models of Foundation investing, where most of the mission related work is contained to grant-making and typical PRIs. Most foundations used to invest their endowment with an eye only toward finances and returns - investments may not have been in line with the values of the foundation.

Foundations are beginning to lean into market investing as a finance-first strategy while also driving more sustainable outcomes. This shift toward aligning more investments with mission

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provides more ways to engage with foundations. When coming to foundations with ideas and opportunities, you should understand the different financial entry points and associated risk-comfort levels.

Kate shared that The McKnight Foundation has found that they can get strong, competitive financial returns while driving better outcomes and have made it a goal to continue to align endowment investments with the foundation mission (MRIs). Kate noted that there is a lot of talk in the world right now around impact investing, with a lack of action to back that talk up. When thinking about endowment investments, the returns have to be at a market standard. In order to deliver environmental and sustainability investment ideas to the foundation investment committee and investment staff, conservation finance advocates must be able to demonstrate real returns. Kate emphasized that the Roundtable participants in the room should not underestimate the clear and present opportunities to change large markets with their work – she sees new, large investors constantly arriving in the impact space looking for investable opportunities. Kate concluded by saying that in order to accomplish significant environmental and social goals, change will have to happen “not with the tugboat” but “at the tanker level.”

Session 1 – Corporate Engagement on Agricultural Conservation

Moderator: Adam Chambers (NRCS)

Panelists: Jerry Lynch (General Mills); Jason Weller (Land O’Lakes SUSTAIN); Bill Buckner (Noble Research Institute); Ryan Sirolli (DanoneWave)

This panel was put together so sustainability leaders in the agribusiness space can share how they have created and used innovative tools and models to engage with farmers in their corporate supply chains. Adam gave a brief introduction and spoke about how the relationship between soil health and farming is increasingly becoming a mainstream topic.

Jerry (General Mills) related the tragic Minneapolis mill fire to the actions that agribusiness needs to take in order to create better access, knowledge, and technologies to advance sustainable farming practices. After the mill that makes up the offices of the McKnight Foundation burned down in 1878 and killed 18 people, the owner of the mill pioneered research into better worker safety technologies and spread those technologies to other companies. He put aside competitive business tendencies in favor of improving practices for the good of workers and their families across the industry. Jerry sees a need for similar thoughtful, visionary stewardship in agribusiness. This story serves as an inspiration for the kind of pre-competitive collaborative work GM is increasingly involved with. There is a call for industry leaders to find and deploy best practices across their entire supply chain and not just within their companies.

General Mills’ sustainability efforts are concentrated around 4 key platforms – ecosystems, farmer resilience, climate change, and water – and is focused their work on 10 of their priority ingredients with the largest footprints to make the most impact. They are thinking from seed to landfill, not just in operations. They are particularly interested in emerging soil health concepts because it is one of the few levers that can affect a lot of their key forms. GM is engaging with their important row crops at the farmer level with assistance from the likes of The Nature Conservancy and the Soil Health Institute. Working with farmers within those 4 platforms is beneficial for all parties involved. In the long term, GM is thinking about how to scale their

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partnerships and practices across their supply chain, and how to best leverage their supply chain capabilities into impact.

Jason (Land O'Lakes) opened by speaking about the importance of being vocal with government representatives about funding conservation initiatives, especially since the House is currently debating the next Farm Bill. He noted that the current House draft of the farm bill still includes the CIG, and that it is imperative that it makes it through to the final version.

Jason next shared his experience with Land O'Lakes SUSTAIN. Land O'Lakes is a cooperative owned by growers, and SUSTAIN is a business initiative within the company tasked with improving farming sustainability practices and maximizing positive impact on the environment. SUSTAIN is constantly looking to see what innovations can be injected into the company supply chain, and what inefficiencies and externalities can be monetized. The way Jason sees it, conservation is all about efficiency. Pollution can be seen as diffused value damaging the environment that should be put to work growing food. Jason posed the following questions: How can conservation drive efficiency and farm profitability, and give farms these tools for success? How can we identify problems, create opportunities, and scale those opportunities?

When discussing potential changes in practices to farmers, Jason has learned that farmers will respond with the following questions: How much does it cost? When do I see return? Is this a fad? Will it involve the government? And, once again, how much does it cost? Agricultural retailers, trusted partners of farmers will ask: Who is going to pay? What does it cost? What is the rate of return? Will this confuse my supply channel? What is the rate of return for sales hours? Does it involve government? It is important to be able to account for the needs and realities of the people that proposed management practices will effect on the ground. If you cannot answer these kind of practical questions, your initiatives will be over before they start. Jason cited a journal article that asked farmers who they trust for industry advice. The top response was their seed dealer followed by their chemical dealer, then another farmer. NRCS was ranked high, but not in the top three.

Some of the tools that Land O'Lakes and SUSTAIN have introduced include a farming practices recommendation engine for farmers that delivers results in terms of profitability and yield – metrics that farmers really care about. They have had farmers use the Agren SoilCalculator to show how changing practices can lead to less soil loss. Jason found that using visceral pictures such as a soil loss heat map can transform how farmers think about their soils. Doing so can help sell farmers that inefficiencies like erosion are comparable to burning money. SUSTAIN is training machines to identify conservation practices to micro target their outreach and engagement – part of how they are evaluating how to upgrade the “conservation delivery engine.”

Lastly, Jason described how Land O'Lakes is the first dairy cooperative to deploy their own equity into conservation finance. Finding affordable financing for dairy is really difficult in today's financial markets, so Land O'Lakes is providing loans for conservation projects including manure separation technologies, water reuse, and solar panels. In this initiative, farmers can get points off of their loans if they are willing to share data that will contribute to Land O'Lakes conservation initiatives. The results feed back into the organizations robust scientific and metrics initiatives.

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DanoneWave is currently the world's largest public benefit company. Ryan spoke about how a large part of DanoneWave's focus is on how to better engage with dairy farmers. For instance, they used to have only 2 dairy buyers for yogurt brands whereas they currently have over 40 buyers because they are intent building relationships with farmers. They are thinking differently about their economic model as they work to source directly and fairly, and are constantly thinking about how to better their long-term relationships with farmers. DanoneWave has instituted the first cost-plus model in dairy. Ryan shared that the company found that over time the cost of production and the price received for dairy are about the same. So, by using a cost-plus model DanoneWave takes the short-term volatility out of market transactions with farmers. As a result, they can focus on long-term payback strategies and value generation. The strategy works for all parties involved - DanoneWave sees stable budget pricing, and farmers see stable revenue. With stable pricing and long-term commitments, farmers are more amenable to sustainability ideas. Initiatives including improving animal welfare, carbon emissions reduction, soil health and carbon sequestration, biodiversity protection, and water preservation become more realistic when farmers are not as worried about their bottom lines. With cost-plus, DanoneWave takes away the fear of the unknown and the inherent instability of management practice change transition periods. When relationships are focused on the short term and transactional, every party attempts to wring out a premium. They have found that after getting over the 2-3 year change period, the long-term partnerships pay for themselves. How to evolve the business model and getting through that change period is the key.

Bill of Noble Institute discussed how the organization is working to close some of the gaps in soil health research. They want to remain farmer facing, advance soil health metrics, and enhance coordination in the space. A big strategy that the Institute is thinking about is how to establish soil carbon sequestration plans at the ecosystem level. Additionally, Noble wants to build a trading platform for ecosystem service credits and allow them to be stackable. Some questions that Noble is thinking about include: How can these complex protocols be made accessible to at the farmer level? How can private land ownership see greater participation? How can systems for credit trading be built with an eye toward simplicity and scalability?

Session 2 – Advancing Conservation Through Mainstream Farm Finance

Moderator: Maggie Monast (Environmental Defense Fund)

Panelists: Mollie Aronowitz (People's Company); Laura Gentry (Illinois Corn Growers Association and Precision Conservation Management); Samuel Bunz (CropPro Insurance)

Maggie of the Environmental Defense Fund (EDF) began the session by posing the following questions prevalent in the conservation finance space: What are the best ways to quantify and monetize the value of conservation? What are the best ways to bring these valuations to scale? Maggie shared that EDF has engaged with farmers to answer questions about how conservation practices affect farmer budgets. They partnered with K Coe Isom to look at the finances of adopters and non-adopters. The savings from implementing conservation practices can be seen in pieces – small savings on fuel, labor, fertilizers, etc. These cost savings add up over time, but incremental savings are tough to measure and demonstrate. She sees looking at the whole farmer budget as the best way to capture all the effects of conservation-oriented management changes.

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Maggie then asked, how can we work with farmers to take the long view, especially when farmers bear all the cost and risk? Buyers and insurers that regularly work with farmers and don't recognize the importance of conservation practice implementation inherently de-incentivize adoption. As such, the case for how conservation helps farming practices needs to be made to farming orienting supporting businesses as well, to order to help build the case for farmers on the ground level. Maggie noted that the panel is made up of three fresh faces to the Roundtable session.

Laura spoke about the work that the Illinois Corn Growers Association is doing in partnership with conservation groups, Walton Family Foundations, and the University of Illinois. Their program is farmer focused – they want to see more farmers adopt more conservation programs on more acres. She threw out the question – Why would a commodity organization start its own farmer facing program? The answer, she posed, is because of regulation risks and demand from supply chains to claim sustainability commitments. Her group works at the grassroots level with soil and water conservation districts using precision science data to target farmers one-on-one with identifying, addressing, and managing risks. Laura asked, why should farmers even begin to engage with this kind of conservation work? She then posited that there is a demand for it at the agricultural supply chain level, as well as fears of tighter government regulation.

Mollie discussed the work that The People's Company is doing to work with farmers to address their financing needs. Mollie highlighted that in the last 15 years more capital is going toward equipment than land because of technology gains. As a result, farmers need more access to investors to lease land. At the same time, there is a lot of blame going to the farmer for regional level conservation issues. Mollie works with farmers to think about the long-term appreciation of their land as an asset, and how they can implement practices and to keep soil on the land. Many farmer's rent horizon is too short to allow for long-term thinking, and she works to convince farmers that conservation practices are better overall. Mollie said that farmers should look at investing in their land on an annual basis, and thus need access to technology and data that can help them make informed decisions. She has found that often, farmers can only afford the time and effort to address the most sensitive areas. After years of collecting data, People's Company can show farmers that by implementing conservation practices they can get a premium for rent later on down the road.

Sam talked about how his company, CropPro Insurance, is a public-private partnership. Crop insurance is federally subsidized and covers claims up to 85%. CropPro has the opportunity to differentiate themselves to their clients with the 15% difference from 100% in coverage. CropPro is venture funded, so they have a highly embedded relationship with technology. For instance, they will cover above the federal limit if the farmer will use certain technologies or prescriptions that the company knows will help them limit risk. In this 15% insurance coverage margin, there is great potential to help get farmers on board with conservation practices. Thus, partnerships with crop insurance companies could be an excellent way to get farmers on board.

Summary of Q&A

Q: What are some of the barriers to conservation value integration?

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Sam – CropPro serves the conventional market and many farmers are skeptical of practices that they are not familiar with. They don't necessarily tell farmers that they should go full organic immediately, but they can implement different practices that will help them in the long run. This is especially the case as compliance will get more onerous into the future. It's tough to communicate that their yield might drop but they can create an income from insurance, especially if risk of increasing regulation isn't so present at the moment.

Laura – There is a lack of understanding of the risks and uncertainty associated with conservation values. For instance, the 2nd most expensive agricultural input is nitrogen. You can save \$8-12 per acre on pinputs every time you don't till your field. If farmers reduce nitrogen application and lose a little bit of yield, they can still come out ahead in terms of profit. However, many farmers are only concerned with pure yield numbers.

Q: How are farmers that members of the panel are working with thinking about organic or non-GMO certifications?

Panel – Farmers will inevitably say, what is the incentive? The panel feels that they can get farmers to move in the direction of certification if the people helping farmers can help answer their questions about supply chain concerns.

Q: Can we develop insurance products around implementing conservation programs? How can we make insurance work for conservation?

Sam – there is the potential to allow for higher coverage if farmers follow a certain plan that the insurance providers want to see put into place.

Q: How many farmers are focused on the next bushel vs. the next dollar of profit?

Laura – the whole system is built on yield, yield, yield and not profit. Farmers are competitive. Studies have found that optimal nitrogen application is usually 15-20 pounds/acre less than actual applications, but farmers over apply because they are fixated on yield. Farmers also want to spread out their fixed costs – they need acres to justify their equipment. As a result, they are more focused on just breaking even and keeping their acres productive.

Session 3 – Foundation Investing

Moderator: Peter Stein (Lyme Timber Co.)

Panelists: Elizabeth McGeveran (McKnight Foundation); Tom Mitchell (Cambridge Associates); Arthur Pearson (Gaylord and Dorothy Donnelley Foundation)

Peter kicked off the discussion by noting that foundation program related investments (PRIs) are an excellent source of low cost, concessionary financing. For instance, he has seen foundations lend money to land trusts, that then have partnered with Lyme Timber to execute deals that they

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would not normally be able to undertake. Peter asked, how can the conservation world continue to leverage foundation money to spread their values in agriculture?

Arthur noted that his foundation is very attracted to capacity building grants – they want to supply funding that is going to bring additional value to mission based work. They have also used PRIs to provide bridge financing for work such as purchasing land that the foundation is not able to do with their grant money. Arthur shared that The Gaylord and Dorothy Donnelley Foundation has an ambitious target of preserving 1.4 million acres of land in the Chicago region – where half a million is currently preserved. The foundation is looking to accomplish the goal on the program side, so they are constantly looking for ways to better activate their dollars.

Part of Tom's work with Cambridge Associates is in foundation asset management, and helping to inform foundations what they do with their MRIs and PRIs. He has seen that foundations are increasingly interested in aligning their investments with their missions – a departure from how things used to be done. This can be a tough goal because many foundations are concerned with growing their endowments as often there is no more family money coming in. Foundations also increasingly want to be consistent across their portfolio. Tom then noted that in order to attract foundation money, conservation investments will need to be market competitive. For instance, funds such as Lyme Timber have found ways to add other cash flows to their models such as easements and payments for ecosystem services – the question is how to get these kinds of models into farmlands investments.

Elizabeth started off by noting that not only does the McKnight Foundation have \$200 million in impact investments, but they have also been able to better align their investments with their mission across the full endowment. Elizabeth and the investments team regularly thinks about what the functionality of each investment is within the larger portfolio. So, when talking with foundations about investments it is important to know which part of the portfolio are you attempting to access to better make the case. She noted that PRIs in the McKnight Foundation are originated by grant makers, and that there is difficulty in messages translating from the programmatic side to the investments side when mission related work may have moving outcome targets. For her to sell her message to the investment committee, she needs to be really passion about it.

McKnight thinks of their program as having 4 points of leverage to affect change. 1) As institutional investors they are owners of assets. 2) They have the leverage as a large financial institution and large customer. 3) They can look to the shareholder space. 4) They are a market participant and as such can submit comments to the SEC.

PRIs are a low performing part of the endowment. Other foundations may be willing to take on more risk than McKnight can with their greater portfolio. A living donor who doesn't mind disposing of money is better for risky investments, versus McKnight which has much tighter risk tolerance. She emphasized that it is important to understand how the institution that you are asking for money from uses their money – risk profile expectations are going to differ across foundations.

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Peter then noted that organizations asking for money often ask for the wrong kind of money at the wrong time. CIG projects need more money than just the grant money they have received. PRI money usually expects a modest amount of return for a lot of impact, whereas other types of money are finance first. Some project proposals may be ready for high risk, general endowment type capital but wait too long or ask for PRI investments. To increase chances of accessing foundation investment, proposals should make an honest assessment of their risk-reward profile. It's not great for the field to have lots of under-informed proposals submitted to financial partners. It is important for project managers to get insights into how specific foundations make their investments so they can align priorities.

Q&A Summary

Q: How can organizations best prepare when asking foundations for investments?

Proposals should come with a one-pager with 2/3 of the page devoted to risk profiles and other financials. The other 1/3 should be about impact – spend more time and effort on the financial narrative. We get the environmental part – can you hit it with just a few pointed words? The proposal needs to be easy to look at. Be upfront and comfortable with your own risk levels. The more honest you are the more comfortable the foundation investment team will be with you. Spending time on the financial narrative is really important. Additionally, it's never too early to conversation with the right place-based and relation-based foundation.

Q: How can the field move beyond pilot projects?

The ag space places a lot of emphasis on pilots – questions are emerging on whether there are any successful pilots. Is there capacity in the wings to fund pilots, then to line up someone else to scale and prove to the world at large? Is there capacity with regional governments?

The key could be to line up investors in advance that would be willing to move to the next phased after pilots. Philanthropic capital would be more excited if there was a clearer path to institutional capital. Intermediary infrastructure could be an effective application for this. Those intermediary structures could hold the creativity and risk taking and present a path to scalability.

Q: Philanthropic capital's role is to take the early risk other investors won't, but a lot of foundations become risk averse because they don't want to lose their funds. How do you balance that when trying to put the impact in impact investing?

McKnight is guilty of this, a lot of it comes from the mental state of accounting money. When interacting with an institution it's important to understand how the different pots of money are conceptualized.

Q: Elizabeth, are you not spending PRI/MRI money out of budget because you do not want to cannibalize the main budget?

Yes, we want impact investing to seem additive. Nobody wants to feel like they are losing money.

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Miscellaneous Notes from Discussion

An abstract question was proposed: could there be a recoverable grant mechanism that could be thought of as a level of investing between the grant and PRI levels? In response to that thought, Peter noted that the Heron Foundation has integrated their grants and investments teams – they are now making bigger, more concentrated grants. This way the foundation is better able to trace investments as they move along the philanthropy – PRI – MRI path.

Peter later stated that CFN started from jealousy of the development of community development financing. If you want to work at scale and not just do random acts of conservation, you need finance from other resources other than just wealthy individual. We wanted to bring that thinking from the community development space to conservation finance. The New Market Tax Credit program was not created with conservation in mind, but has been reapplied from community development.

An audience member noted that the Doris Duke Foundation got a better understanding of who was matching their land conservation grants and helped those organizations to lead ballot measure infrastructure to generate more public matching money. They worked to better establish infrastructure that can further activate their dollars.

A question was posed: what would it look like to incorporate impact into investment staff compensation packages? This could be an important structural piece for aligning endowment with mission. McKnight was able to move quickly in their endowment transition because they did not offer incentives to their CIO staff, they are all in it for the mission.

A consensus arose that there is a need for government stimulus in the field. The community development world has the New Market Development Tax Credit to spur institutional investment – what can serve as the tool to garner interest in conservation investments?

A final question addressed a method for attracting institutional capital: could there be a way to aggregate small pilot projects to attract institutional dollars?

[Session 4 – Copying the S-Curve: Lessons from Other Sectors](#)

Moderator: Peter Weisberg (The Climate Trust)

Panelists: Catherine Godschalk (Calvert Impact Capital), Ben Healey (Connecticut Green Bank), Sean Penrith (Gordian Knot Strategies)

Leigh spoke first to give some context for the next panel. She said that we've talked about innovations in other sectors for years now, but now we need to try to bring those in to conservation finance. For this panel, we have settled on affordable housing and energy efficiency. Specifically, how intermediary structures can make the wheels turn more effectively.

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Peter kicked it off by describing what the s-curve is – a general conceptualization of growth in businesses. He then introduced the panel by discussing how intermediaries have become experts and represent important knowledge bases in other fields. Peter asked, to grow the conservation field, how can knowledge be deployed to better nurture innovations that unlock scaling mechanisms? The goal of the panel is to talk about the “plumbing and tools” from other mission based fields that can potentially be replicated in the conservation space.

Ben of the Connecticut Green Bank led off by drawing a diagram incorporating everything he had learned that day from the roundtable participants. He said that one of the fundamental problems he sees is a mismatch between supply of capital and investable opportunities. The “dumb money” is in the capital markets – what everyone in this room is trying to access. They do not require an understanding of the entire ecosystem to invest because risks are laid out to them in plain financial numbers. So, to assess how to close that gap he wanted to examine the entire supply chain of agribusiness. Farmers have off-takers, so in conjunction with their 85% federally guaranteed insurance should not have much credit risk. This kind of insurance coverage is not present in other sectors – he would certainly like it in his area. Given the conceptually small credit risk, Ben suggested that intermediaries may be key in better aligning conservation incentives with investible dollars – such as CropPro in their insurance work.

The Connecticut Green Bank is an intermediary – they have expertise within their ecosystem and work to connect institutional money (“dumb money”) with the system that they work within. They simply apply their expertise repeatedly to source funding for projects. Ben emphasized that when it comes down to it, all the bank does is create alignment by using capital as a leveraging tool. They also assume some risk by taking opportunities onto their own balance sheet. They have shown for years that there is a market there. They help allocate and distribute risk effectively. Risk can take the form of loans, guarantees, leases, etc. Ben believes that the 85% federal insurance discussed by Sam from CropPro has so much potential as a leveraging tool. He concluded by acknowledging that regulatory context is also a critical leverage point.

Catherine pointed to the differential between the capital market facing intermediaries and deployment intermediaries. She has seen success unfold previously in the community development space when an organization such as a non-bank financial institution can help identify targets for investments. Catherine proposed that the goal should be to find areas where projects can be truly replicable, and to embed innovative pilot projects there. She noted that the people in the room are very far away from direct access to capital markets because of the scale required. The beauty of the intermediary infrastructure is that it has the ability to leverage the well-functioning mainstream capital markets.

Sean of Gordian Knot Strategies put forth the ESCO industry as a great model for how the commercial sector can approach conservation investments. ESCOs were able to standardize an approach that had mass adoption appeal. Originally, the ESCO was a developer that would finance implementation and operation of energy efficiency projects in return for a cut of the savings. However, it was difficult to verify that the ESCO’s actions were directly responsible for energy savings outcomes. The process required unification on measurement requirements. Another issue was that ESCOs did not have the robust balance sheets that institutional investors wanted to see and so could not amass capital fast enough. As a result, in effect the industry

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pioneered the now popular idea of pay for success. All ESCOs had to do was guarantee the savings and they were on their way. Sean emphasized that the ESCO is an example of an intermediary that assembled standards and as such could attract capital. Farmers and savings from conservation practices similarly need intermediaries to attract capital and scale. Sean envisions a farmland type ESCO organization that implements changes wholesale then can take a cut of the profit. However, this all hinges on the idea that conservation practices will in fact lead to better, more efficient yields. Additionally, there could be a lot of legal issues and transaction costs to harvest savings from efficiency upgrades.

Sean sees long term regulatory drivers and subsidies as another issue for conservation-farmland intermediaries. The business potential needs to be reliable and long-lasting or there is no point in businesses entering the market. However, the potential for bundling farmland efficiency projects at scale could be enormous.

Discussion and Q&A Summary

In the discussion that followed, a consensus built that additional subsidies are necessary to push wholesale changes into place. It has successfully happened in the community development sector with affordable housing. The answer will likely lie somewhere in the Farm Bill, and must be more expansive than the CIG program.

Q: Are people in the room thinking of ag tech investments as the vehicle to reduce friction in agricultural transactions?

An answer came that the scientific community needs to come to a more complete agreement on standards – there's a lot of technology out there but no dominant label to rally around.

Q: It seems like the cost of intervention on farms is costlier than the benefits. If we bundle the benefits, then will the big money players realize that we have something going on here?

Yes – that is spot on. We need to make the value greater than the cost on aggregate.

Another issue that was brought up during the discussion was the question of land tenure. Farmers often lease their land, so implementing land management changes become more complex when the owner does not stand to benefit long-term from land based changes. In this area, Black Dirt Capital is already serving as an intermediary – they focus on farmers that have already made conservation changes because there is inherent financial risk in the transition while deploying new practices. Other REITs only invest in farmers that already have organic experience.

Ben noted that in energy, the savings from the customer from energy efficiency is often not huge – for example, on average 15% of bills are energy and you can save 10% of those costs with efficiency. To realize those savings, you need a third party that cares more about generating those savings to prompt action.

Overall, the capacity for intermediary work in the space exists. The question of whether projects can scale is tied up in the question of how many clients are willing to transition to conservation

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practices, and how to standardize reporting on outcomes to bundle projects to enough scale that institutional money becomes interested.

The sessions then concluded for the day.

Session 5 – Copying the S-Curve: Lessons from Other Sectors

Moderator: David LeZaks, Delta Institute

Presenter: Drew Lein, Pipeline Foods

The next morning, David LeZaks of the Delta Institute introduced the session by discussing the organization's work in mobilizing investment and finance in regenerative agriculture. David sees a mismatch between sources of capital and the arrangements of farming infrastructure that can allow soil health agriculture to scale. David introduced the speaker for the first session coming from Pipeline Foods, a company that is filling a needed role of expanding the availability of non-GMO organic supply to food markets. Pipeline is an example of an intermediary organization that can help bring alignment between what institutional capital wants to see and farmers' needs on the ground.

Drew of Pipeline Foods then gave a brief introduction on how Pipeline Foods came to be, and what they are doing that is different. He said that Pipeline is bringing unique investment opportunities to financial stakeholders in a demand driven marketplace. Pipeline has an asset heavy strategy, such as buying elevators that they convert to organic. They strive to bring successful organic strategies to a wider base, and also provide procurement solutions to their partners. Pipeline is working on developing strong ties with financing partners – the transition to organic takes time and patience and investors will need to be on board with the mission in order for the transition to happen.

One issue that Drew has seen in the marketplace is the lack of consensus on a regenerative organic standard. Regenerative as an agricultural concept is currently in its infancy. Drew asked: how can regenerative practices be categorized? What is the demand? Is regenerative the “next organic” in the marketplace? Pipeline uses the Rodale Institute's standard, but without a market-wide standard creating a scalable supply chain is quite a challenge. Drew said that once there is greater consensus on what is needed for regenerative organic standard, the time will be right for significant business opportunity and impact in the field. Drew shared that the investment community is looking for alternatives to business as usual agricultural investments. Additionally, agriculture markets actively need more companies like Pipeline to connect capital with farmers interested in regenerative methods in order to systemize the process and take the guesswork out of the market.

Drew also sees a lot of interest around stackable payment schemes such as carbon and water credits. For one thing, if there is a price on a resource like water farmers will react positively. How can you monetize the transitional period for growers – can we do something like RECs? For another, more potential revenue streams would help ease the management practice transition.

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Drew mentioned the Renewable Energy Credit and Blockchain as potential examples and resources around which to model and tokenize organic transitional credits.

In line with the intermediary discussion from the prior afternoon, Drew sees a great need for crop consultants that understand local practices and that can share regional-level technical knowledge with farmers.

Session 6 – Structuring Workshop

Next, Leigh briefly introduced the structuring workshop. Recipients of the NRCS Conservation Innovation Grant will present on their business models to a panel representing large institutional money. The panelists will give feedback on the projects and insight into how their decision-making process would look like if they were asked to invest. This workshop is intended to work toward closing the gap between what institutional money is looking for in investable deals and what opportunities organizations are building that are looking for capital. The session will look like the popular TV show “Shark Tank,” except the session is meant to be congenial and helpful so the panel is will instead be referred to as a “Dolphin Tank.”

Structuring Workshop Part 1 – Fresh Coast Capital: Creating Working Landscapes from Former Urban Lands in Legacy Cities

Presentation:

Fresh Coast Capital is working to address storm water issues in Peoria IL using urban forestry. Peoria is the first city looking to manage storm water with 100% green infrastructure. The green infrastructure project will install harvestable flowering bioswales and a storm water forest of hybrid poplar trees. The estimated cost is \$250 million over 25 years. They are setting up a P3 model with a project finance style structure. The city is launching a storm water utility that has agreed in principle to work with Fresh Coast on the green infrastructure project. There is a 30-year contract currently in predevelopment.

Questions and issues that Fresh Coast Capital is working on addressing include the following: How do they go from \$1.6 million, 2 acre grant-funded project to scale? How do they navigate the storm water utility’s lack of track record? How much water will the project be able to manage? How can they contract based on apparent risks, validations, and functionality? When it comes to scaling, how can Fresh Coast navigate old procurement policies given that their model requires custom agreements?

Q&A

Q: Where does the community development piece of the project fit in with the plan for scaling?

Fresh Coast Capital will be engaging with the community throughout the project and is presenting their work through a co-benefits lens.

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Q: What are the biggest risks?

The biggest value that the project provides for the city comes from the risk transfer from the city to Fresh Coast that is built into the model. However, that means that Fresh Coast's SPV is taking on a lot of risk. There is always the risk of cost, schedule, and maintenance overruns. Fresh Coast will look to push that risk onto the appropriate contractor. The final risk is of the EPA ultimately not approving the project as a part of the city's storm water management plan. While the agreement with the EPA is currently pre-signature, Fresh Coast feels confident that given the small size of the project the city would continue with the plan regardless of the EPA's ultimate decision.

Q: Is there potential political risk?

The city-manager position is long-term so if that person is on board, then city planning level decision making should be on Fresh Coast's side for the foreseeable future. Fresh Coast already has partnerships with the local labor union.

Q: If you don't know who the dumb money at the table is, you're the dumb money. If I put myself in the city's shoes, why am I better off with this deal?

You still have an out along with all the other benefits, you just have to pay a penalty.

Q: How is money being returned to investors in this model?

The SPV gets paid back through the ability to perform under budget. It is all performance based. The city is effectively purchasing additional storm water volume capacity. To measure performance monitoring and evaluation has to be built into the project. The SPV just needs minimum availability payment to cover debt service – increased payments from performance are where equity returns come from. The estimated capital returns are 6-8% for debt and 8-12% for equity.

Q: Wouldn't a bond measure be able to borrow at 3 or 3.5% versus above mentioned rates?

Currently, the line for bonding capacity for the city is a very long. Storm water infrastructure is very low down on the list and cannot jump the line. That is why Fresh Coast needs investor funding.

Feedback and Summary

A member of the panel delivered a final summary of feedback given the presentation and Q&A. The panelist's first thought was, what is the Fresh Coast runway in terms of long-term growth? Additionally, the presentation did not include any information about the team and their experience. For potential equity investors, applicability for places beyond Peoria and cost savings are interesting and important. One of the very most important things that investors are looking at is the make-up of the team. Investors need to know that the people they are working with are experienced and capable. The panelist also wanted a little more background information

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on the state of the market. Is this the first time that private capital is being brought into green infrastructure projects? Are there other case studies to refer to? Is Fresh Coast building on other experiences? And is there any market competition?

In summary, the panelist sees the primary risk profiles as competitive and political. The way the project is set up requires a substantial bet on Fresh Coast. Thus, in their presentation Fresh Coast needs to position the organization a little better. The panelist would be interested to know how this kind of project has worked in other places, as well as more practical information about the cities' bonding capacity. The panelist desires both more specificity on context as well as a better 10,000 ft. view.

[Structuring Workshop Part 2 – Chesapeake Bay Foundation: Pennsylvania Offset Partnership](#)

Presentation

The Chesapeake Bay Foundation is working on facilitating pay for success models in Pennsylvania to reduce agricultural run-off polluting the Brandywine-Christina watershed. Chesapeake Bay farmers are some of the most highly regulated in the country. We are looking for ways to help farmers meet those regulation standards. They are still early in the process – there is much work to be done in resolving issues with regulators. However, the EPA and state of Pennsylvania are both supportive of the project. The grantees are looking to work with small agricultural centers – municipalities facing regulatory issues but lacking the capacity to meet them. However, they cannot work with municipalities that are too small or they will not have enough credit worthiness or budget to pay for project implementation. In partnership with Land O'Lakes, they are interfacing with agricultural communities to drive conservation behavior, such as cover crops, in the interest of avoiding further regulation. The grantees are looking to coordinate 2 pay for success transactions by 2019 in Lancaster and York Counties. They have assembled a database centered around municipal public works budgets to target potential target clients.

The key for paying for the project will be achieving scale. In the long run if individual projects are not large enough to merit private finance then they may have to bundle. A big hurdle is how to measure and monitor performance of implemented land use changes. Paying for performance may be especially difficult because there is no incentive at the farmer level to go beyond regulatory compliance. Another consideration the group is thinking about is whether it is cheaper to do projects upstream or on municipal right of ways. Finally, they need to think deeply about permanent versus annual practices, and be clear about what the benefits are to farmers which align for avoiding the permitting and construction options for the community.

Q&A and Feedback

Q: Should the grantees go after bigger projects that are going to be more efficient? Or go after smaller projects and aggregate?

It may depend on whether the end goal is to attract private capital, or for municipal storm water credit trading.

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Q: Why wouldn't farmers just participate with NRCS?

NRCS programs are already oversubscribed, and may only pay for a percentage of total costs. Additionally, the make-up of Lancaster County is of constituents unlikely to want to work with the federal government. The grantees are looking to talk with bishops on the ground to get leadership level approval.

Other questions and considerations:

What is the incentive for the farmers to participate? Where is the density of farmers such that the grantees can most efficiently create the most benefit in the watershed? Is there a possibility to work with conservation easements?

Summary

A member of the panel delivered a final summary of feedback given the presentation and Q&A. They saw that the grantees are attempting to deal with multiple problems. Might it make sense to simplify by just picking one nutrient? The grantees already know this, but it will be ultra-important to apply numbers to their dealings, especially in quantifying the deal structure. There appear to be a lot of risks and points of exposure in this structure – at the cultural, EPA, municipal creditworthiness levels. The panelist wants to know what exactly do the financial flows, pay for success structure, and credit system look like?

Structuring Workshop Part 3 – i2 Capital: Brandywine-Christina Watershed Fund

Presentation

i2 Capital, in partnership with other organizations, is deploying a revolving water fund in the Brandywine-Christina Water Fund. The targeted customers are municipalities that must address compliance issues and water utilities interested in keeping costs down. The grantees are looking to get downstream beneficiaries to invest in upstream practices, advancing a simple model pioneered successfully in Latin America. The structure of the revolving fund is as follows: impact funds are first pooled into a funding vehicle. The grantees will work to install agricultural practices on the ground while working with farmers based on the potential to reduce sediment and phosphorus using metrics in alignment with MS4 regulatory requirements. Payments for success will be sent back into the revolving fund to be deployed again to finance further projects.

The biggest challenge the grantees are running into is demand. They need to quantify and align municipal demand for pollution reduction units across many municipalities. It could be a tough sell when upstream agricultural lands are outside of municipal boundaries.

The grantees want to partner with public service commissions to get costs built into rates – this strategy would smooth the spending path for water companies. The goal is to create a pay for success transaction. They are hoping to capitalize at \$8-10 million. They can take on commercial

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capital in the 5-7% range, but they will require concessionary capital to reach their desired cost of capital. They believe that they will require some loan and collateral coverage.

Feedback and Summary

A panelist posed the question - given the revolving structure, the project may not ever support equity capital – do the grantees maybe need to offer some kind guarantee? What is the collateral coverage for loans?

Another conceptual question posed was: since project is heavily dependent on of philanthropic support – once it's all ironed out and tested, how can the grantees invert their financial ratios to attract commercial capital?

Q: What does it cost to reduce one ton of sediment?

\$4-6/lb, which translates also into nitrogen and phosphorus reductions.

Q: What is the plan to aggregate validated credits? When will investors know and have certainty in the value of their credits? Is there a contracted buyer of credits?

The goal is to generate reductions and work with regulators and municipalities to get a few transactions done by 2023.

One panelist said that the grantees should show a cost curve to demonstrate that there is low hanging fruit, such as buffer strips, that they can do at \$4 per pound. If they can get 1,000 tons of reduction through low hanging fruit opportunities, that shows that you can get a decent percentage of your requirement done right off the bat. This is good communication for investors.

Summary

A panelist summarized the discussion by stating that capital wants to see a fixed contract to lend against, and noted that there is no evidence yet that fixed contracts are in the works. The panelist saw some regulatory risk in this plan, and asked how will the grantees proceed if the EPA is not willing to approve their plan? The panelist also suggested that grantees should try to produce a cost curve to show how their estimated savings for the municipalities and water utilities of \$8 million is meaningful. Additionally, it is unclear based on the presentation where the pay for success and revolver fund pieces of the puzzle come in. The grantees need to do a little more work on thinking about how it all fluidly fits together, instead of just layering on pay for success.

[Structuring Workshop Part 4 – Trout Unlimited: Liquid Assets](#)

Presentation

The final group to present is based on a project between Encourage Capital, Trout Unlimited and Blueshift. The long-term goal is to use impact investing capital to drive sustainable water management changes in the West through new management approaches and solutions. Their

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primary strategies are to source agricultural and ranchland deals that have ecological and financial return, although they have had difficulty finding the right deals. They explained that they are approaching year 2 of the 3-year project and have not yet made an investment. They had plenty of opportunities to make one but are still trying to find the sweet spot between financial and environmental goals.

The grantees' approach is unsystematic at this point – they rely on the knowledge of local NGOs to identify deal opportunities. The grantees are looking primarily in high elevation watershed areas to improve ranching and agricultural land operations to restore grasslands and to enhance tributary conditions and stream flows. One such operational improvement they utilize is crop switching to higher-value, lower water use crops. The conserved water benefits regional streams and aquifers.

The grantees have run into some local pushback when locals think of their business model as a dishonest buy and dry scheme.

The grantees are looking to find areas where there are enough ranches to do crop switching to get regional environmental benefit in aggregate. They do not want to do just do deals for deals sake. Another key point is that the model cannot allow for high transaction costs. The grantees are thus trying to source deals with larger farms. They have found that they are often constrained by regional level processing capacities. For instance, getting farmers to switch to organic wheat is great, but is there local capacity to process and transport that wheat to market?

The grantees have learned many big lessons so far. The first is that water management issues are incredibly complex, especially in the West. When it comes to crop switching as a conservation strategy, it is difficult to find the right combination of investment and impact factors. Overcoming long timelines and institutional inertia in regional-scale multi-partner projects has been another significant barrier. There is significant resistance on the ground to involving private capital, and the slow pace of decision-making is directly at odds with timing pressures in getting deals done. The grantees are also unsure of how to target specific segments of the investment community in relation to their project timeline.

Q&A and Feedback

Q: How is the project planning on raising the necessary \$150 million? Are there additional revenue streams being considered such as mitigation or sage-grouse credits? What does the actual structure of the fund look like?

The grantees have found that crop switching could be a much better investment than just buying ranch land. As for other revenue streams, they have thought about and done due-diligence with the firm Ranch Advisory Resources, but the incentives for sage-grouse credits are not what they once were.

Q: To what extent have metrics been mapped out?

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The Liquid Assets team is very committed to “hardcore analytics” and have a team that can talk about metrics in precise terms. The team often reflects on the class of impact investors that they are working with and what they are looking for in terms of measurement and impact.

An audience member raised the following idea: Could there be hydropower or localized power benefits? Might there be a way to partner with hydropower to reap the reward of increased water flow resulting from changes in ranching practices?

Summary

A panelist started off the summary by asking after the long-term viability of the Liquid Assets model, as it appears the grantees are still testing whether there is a possibility for economic return. Where does the revenue generation come from? What are potential investors investing in, and what is the return? What market development potential is there in looking to scale long term, and are there comparable case studies? The panelist suggested considering the potential for agricultural easements, and to study and learn from Beartooth Capital and Farmland LP, as well as other conservation resource markets. The panelist emphasized that when meeting with capital investors, there is a lot at stake in the first meeting. Project teams need to really, fully have their act together and take the appropriate time to work out the kinks in their proposals. The panelist felt that the Liquid Assets presentation felt a little scattered, and that too many varied interests and ideas could potentially take away from the core strength of the project proposal. They should present an actual deal for investors.

Closing Remarks

Kari, Leigh, and Allegra closed by thanking everyone for their time and contributions. Leigh then shared some of her major takeaways from the discussions over the course of the two days.

One of the most important messages to Leigh was that when assembling deals and working to spread conservation practices on the ground, it is vital to always consider the farmers that will be implementing management changes and fundamentally have the most at stake. A mantra that developed over the course of the two days was, “What will it cost? Is it a fad? And, what will it cost?” Farmers do not have any mandate to follow conservation protocols, and as the messenger it is our duty to make sure our message resonates correctly.

Looking at the other side of potential transactions, it is important to consider the needs of the “dull money,” like the members of the “Dolphin Tank” panel. They need to know how their money is getting used, what risks and risk mitigations their money is going to encounter, and how will they get repaid. The dull money is going to want to understand what to compare conservation ventures to – part of the evolution of the market is thinking about comp benchmarks.

Leigh then discussed how another major takeaway is considering how intermediary structures and institutions can be used to link the needs of both practitioners on the ground and the needs of large capital investors. How can intermediary structures be used to collectively get beyond risk concerns, and where are there associated opportunities in the space to get involved? However,

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intermediaries require expertise within a mature ecosystem. The buyers, suppliers, and financiers in this space are still learning how to develop the market. It is possible that the conservation finance space is not yet evolved enough to support intermediaries and all the scaling benefits they can bring?

A few final comments were made in the room.

Peter Stein feels that many people in the room are still flying blind when it comes to understanding how commercial capital providers make decisions.

Another person noted that if large capital institutions are really interested in getting involved in investments with environmental outcomes, then their expertise and discipline is needed from the very beginning of the deal process. Otherwise, practitioners will not know how to appeal to them. They gave the example that when the Land Trust Alliance was building Terra Firma insurance, they needed Bain Capital's non-profit consulting arm to help design the product.

Another audience member mentioned that the Structuring Workshop "Dolphin Tank" was very useful for the CIG project teams in the room. This should continue to be a part of future Practitioner Roundtables. One idea could be to flip the script of the Structuring Workshop. Instead of having the representatives from capital institutions ask questions, the workshop could allow grantees to ask questions to figure out investors needs and attitudes.

Sean Penrith noted that the community keeps mentioned technology but that's a whole missing piece. Not many people in the room really know how to incorporate tech, they just point to it. Leigh followed up by saying that of the 3 legged stool of finance, environment, and technology, the third legged tool hasn't quite been considered at the Roundtable discussions.

Lastly, Mark Mentioned that the community needs to have more involvement from more people of color.