“Water, it's about water delivery, it's about water governance and it's about government support.”

A Conversation with Wesley Meier of Cova

Ambika Samarthya-Howard
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Ambika Samarthya-Howard: Can you introduce yourself and share more about how you got connected with this work?

Wesley Meier: I got started back in 2008. I was a Peace Corps volunteer in Nicaragua. I was in the agricultural sector. But I grew up on a small farm in Iowa, and I took my agricultural skills down to Nicaragua. That was the initial introduction. I studied engineering as an undergrad, and wanted to do something technical with my engineering degree.

I had the time of my life in Nicaragua as a Peace Corps volunteer. It was a very remote community. I didn't speak Spanish at the time, so learning Spanish was all total immersion. In about three months, I was able to communicate [in Spanish], and by the end of the year I was able to really make some strong friendships. That's where and why I got started.

Ambika Samarthya-Howard: Since that time Cova has been doing work in three countries. Can you share more about that expansion?

Wesley Meier: We started in 2008 in my community in Nicaragua. I got sick a lot, and then about a year and a half into my service—I chalked it up to the food, the environment, etc. But within that year and a half, I also went and got the town plumber. I was curious where our water came from. We traced it out to the main road. Then we hiked about 2 kilometers up towards the mountains and came to the water source, and there was a big field of cattle grazing. I was like, that's not a good sign.

Essentially, we tested the water, realized it was contaminated, and we installed our first water chlorinator. The perception that I had was that I had piped water, so I assumed it was safe, and it wasn't. It looked clear. It was coming out of a pipe, so I thought it was good. That was the first implementation process between 2008 and 2010. The

neighboring community came by and said, ‘We want one of those chlorinators.’ That’s when we created our model.

In 2018, we expanded into Honduras and really diversified. For us, one of our biggest challenges is political instability. It’s a huge risk for us. There's been a lot of instability in Nicaragua, unfortunately. We actually started the expansion just before 2018 and we were very fortunate because after that there was a big crisis and for almost a full year, everything shut down. It was a pretty bad situation but we were able to expand into Honduras to diversify. Then at the end of 2023, we expanded into El Salvador.

Ambika Samarthya-Howard: Regarding the chlorinators, do you have a for-profit mechanism or is it all a part of the nonprofit. How do your funding models work?

Wesley Meier: We are a nonprofit, but I say social enterprise with a strong market-based approach. I was just in Mexico at an impact investment conference. We're looking for fundraising, taking on debt to scale, and every single investor was like, why are you not a for-profit? We've been through two accelerators. We were actually the first non-profit to go through the accelerator, because we have a very market-based approach and business-oriented solutions that can help us scale, very solidly focused on impact, and then reinvesting.

Ultimately, the only thing that we cannot do as a for-profit is take on equity, because we are "publicly owned." On the flip side, we are able to take on philanthropic [funding], which is what we need to get things growing in the first year or two. Then we have a sustainable business plan that continues beyond that. We're looking at impact investment to help fuel our growth, because we know it takes about three years to break even on a community basis and we want to get there quicker. The legal structure is we are a non profit but we fall into the similar realm of B-corp. We operate in a very socially oriented way. We have a market-based approach but we are also able to focus on impact.

Ambika Samarthya-Howard: When did you start getting funding from Rippleworks, and what kind of funding was it in relation to all of this?

Wesley Meier: We received in-kind support through tailored project management to improve our training policies internally. We've been ramping up our growth, and we realized one of the gaps in our operations is how quickly we can train circuit writers, our technicians. In the past, our training consisted of sending a technician in the back of an experienced technician's motorbike and going out in communities to learn [in the field]. It took about three to six months. We need to get that training window down to about one to three months.

We went through a comprehensive process [to explore] what it takes to train and prepare more materials. Rippleworks helped us. They assigned us with a senior director at Facebook Meta. Then they had a program lead that was based in Columbia. Our entire team is Spanish-speaking. The Meta employee was very centered around training and had a lot of training background. He also grew up in Guatemala, and so it was a good fit.

Ambika Samarthya-Howard: How did Rippleworks know that you needed that? Was this based on a request you made?

Wesley Meier: It was comprehensive. A Stanford alumni group called Project Redwood nominated us to participate. Then Rippleworks came with this option. We went through a comprehensive diagnostic to understand some of the needs. We had other needs identified but in the end, that was our biggest need at the time. We felt it was a good fit for Rippleworks. Once we had identified this problem statement, they basically had a good HR recruiter look around and found a Spanish speaker with Latin roots, who had an emphasis on training. That was a good fit.

Ambika Samarthya-Howard: How did you feel about working with Meta?

Wesley Meier: Honestly, I don't feel like it was like working with Meta. I felt like it was working with our facilitators. There's very little to no connection other than that was his title that I saw on his LinkedIn. It was more about his corporate experience, being a trainer, and putting systems into place. He grew up in Guatemala and also has a connection to water companies. There's no connection to Meta. It was really about him as a leader.

Ambika Samarthya-Howard: It sounds like you got really personalized support. Did it work? How are you evaluating the success of that training program?

Wesley Meier: Yes, it did work. We didn't have clear metrics to say, it took us three months, now we're down to one month. I can say with success that we just hired [more staff] in January and I feel like our technicians are pretty much fully trained. We're expanding into 300 new communities. So we had a bunch of new hires starting in January. They're not just learning. They're actually outdoing themselves. We're doing sanitary inspections and analysis of the community. In a sense, it's a success story. What I liked about the Rippleworks support, is that it wasn't just theoretical, we'll help you go through some training, it was hands-on.

We had meetings weekly with our teams, so we made it very practical. We're implementing it and we're using it. If anything, we've used what we've created and now we're diving in and adding a lot more. We're realizing that our database tracking is super

critical and we're seeing some gaps in that, so now we're creating a whole other training package just around database tracking and surveys.

Ambika Samarthya-Howard: Every country is completely different in terms of its regulatory set-up. Having done the training in one country, has any learning carried over? How has it worked in terms of scaling the training?

Wesley Meier: We've really created it in Honduras. Honduras and Nicaragua are very established programs. We just hired our first circuit writer in El Salvador. We're using the core content, but as you alluded to, there are differences in policy and control, and in administration and support. The Ministry of Health has a different purview in El Salvador than they do in Honduras. There is a brand new water administration in El Salvador that we're starting to figure out what they're even doing and how it overlaps with our work. That's a pretty critical part of the model.

We do our own isolated work. We set up inline treatment, we do training and operation, but it's in the system that we create. We can't work without that system, and we want to bring the government along. We have to figure out how this web works, who's controlling certain aspects and who has the authority to enforce, and then we fill that gap where there's missing links. The core content, the basics of how do you install a chlorinator and how do we do these types of training we can do independently. What we're still navigating is figuring out who and what oversees that.

Ambika Samarthya-Howard: What have you seen that actually works in terms of navigating that? Specifically in the Honduras context, did you just wait for political transition to ease up and stabilize?

Wesley Meier: Water is a basic human right. I would normally not say political instability doesn't "directly affect water" but it affects everything else. Water, it's about water delivery, it's about water governance and it's about government support. It's as simple as there's protests in the road that we just can't send a motorcycle down into the community because there's a roadblock and that pauses things. That's where I think the effect is. It's less direct to water, it's more indirect to just operational control.

During the COVID-19 days, we found ways to navigate through that. Instead of sending technicians out, we were able to push quickly to, or transition to mobile communication. We had a lot of WhatsApp members. We still needed to do the water tests with reagents, but we could troubleshoot a lot more via WhatsApp. We were able to mobilize that mobile component quicker. It depends because each country is slightly unique. I just got back from Mexico, we're doing a scoping study of expanding into Mexico.

Last year, we looked at Guatemala, also a scoping study. It's interesting the more you get out of your current context, each government, there's a different government name or entity, or maybe they support more or less. It also helps us understand our model more by realizing what we don't have, and what we just take for granted in terms of the knowns and unknowns in Honduras.

Ambika Samarthya-Howard: Water is a direct service but we've also discussed a lot of systems change. How does your work with water fit in? Also, can you share more about your scoping process? How do you decide on a country as it relates to the mission of the work?

Wesley Meier: I would say we're not delivering water. We're providing water solutions. We're almost more of a service than we are a product. We do have a product because we test the water and 90% of the time, the water's contaminated with bacteria. We have a technical solution to fix that, to treat the bacteria so it's safe to drink. Everything else around it is critical. As a team, we have about 60 staff members working across 2,500 rural communities and 60 staff members can't operate 2,500 rural community water systems. We need to build the capacity and adjust and improve behaviors around treatments and operations.

We basically are building the capacity of the local community to operate their water system as an efficient water utility. That includes routine maintenance. We clean out the pipe so they don't build up the sand and eventually break, fixing the tank or getting the right water tariffs, so there's funds available.

If a pipe breaks, the plumber can be called and they can fix it in two hours versus being down for two weeks. That's the first part, that local level. Then we take it to the next level, the Ministry of Health. They're the beneficiaries of improvements of clean drinking water.

In the socialist healthcare system, if somebody's sick, they have a case of diarrhea, they go to the free health post, and wait in line. Then they get access to medicine to treat the bacterial infection that they have. We can cut the cases of diarrhea in half in communities that we're working in. Therefore half the people go through the Ministry of Health to get free healthcare. That's half the burden on them so it's this trickle-down effect.

We get involved with the Ministry of Health and we see them as our most strategic partner because everything that we do, we want to bring them in. They can come in with their name and authority. We can come in with our agile approach. We test water. Every activity we do, every water quality result, we put it into a database and they usually sign off on it. We also send this online database with their own dashboard so they can see

real-time results. They can map and lay that over what they are seeing for other health incidents. That's why every time we expand, we first go to the Ministry of Health so we can start narrowing down the actual communities [to serve].

Ambika Samarthya-Howard: How does your training work with the technicians relate to the overall ecosystem?

Wesley Meier: They are really the experts in everything to do with water system operation, maintenance and control. One technician, we call a circuit writer, creates a circuit, so they can support 50 rural communities. That's why we call them circuit writers because they have this circuit and they visit every single one of these 50 communities, every single month to do spot checks. We do a series of six trainings throughout the first year. They're also interacting with the Ministry of Health usually at the municipal level. It's really that one technician is the direct interface with the community, and then also the Ministry of Health.

These ministries of health are pretty resource-strained. We're doing the tests, we provide the results and we share it with them. They can see the mapping of that. We have a very agile database. We're fitting into that whole ecosystem. Then we bring the government along. They're implementing some of the practices now that we've been doing in terms of using chlorine as a proxy for water quality, and the database that we have— that's been tremendously valuable to them.

Ambika Samarthya-Howard: So technicians determine if the water is contaminated and then if it is, they offer the chlorinator as a solution?

Wesley Meier: Yes. That's almost a guarantee because even if the water's not contaminated, it's a piped system, there's a high chance of re-contamination somewhere in the system or even in the home. At baseline, we're installing chlorinators. Again, this is law. This is the law in all these Central American countries that they chlorinate their water. Honduras, they're interested in doing it. They just never had the simple solution. They've had a chlorinator in the past that didn't work.

The simple solution is we set up the whole supply chain to get them chlorine. [The goal is] to get the water safe to drink, but you still won't get water that's safe to drink if the pipe's broken or if they don't have a proper tariffs and if they don't have a trained plumber that knows how to fix the pipes, or if the community feels like they're paying too much because they don't know what's going on inside the water board because it's not transparent.

We see it holistically. How do we keep this water system operating now, but more importantly, how to get the community trained to let it operate in the next 20 years. Most

of the systems that we come into, if they're broken or if they're not working, it's because of some simple maintenance thing they didn't keep up with and they just didn't have the skills to get it up and running.

Ambika Samarthya-Howard: So you essentially train them to have the skills to keep it up and running?

Wesley Meier: 100%. That's their whole value proposition. We basically get the community trained, get them up and running, and then give them the training to operate it so they know the routine, how often to fix the pipe or to clean out the system every two weeks, to look at the water source. Now we're seeing more and more reduction in the flow rates over a year due to changes in the climate, or longer dry seasons or wetter wet seasons.

We're looking at trees as a really good solution to protect the water source. Now we're going through reforestation campaigns. You have communities that come together, plant little tree nurseries, and then go and replant them. That won't have a return for at least 10 to 15 years, but in 15 years, they're going to be in a much better situation. We've got to start planting that now. We're definitely forward facing.

Ambika Samarthya-Howard: How do you define impact?

Wesley Meier: I would say topline, health or improving health, which then has a ripple effect in improving quality of life. People can stay in jobs longer, they can go to school longer. At a more detailed level, we're improving health through safe drinking water. We have a headcount of how many people we have reached. We're a very data-centered and data-driven organization. We're actually tracking water quality on a monthly basis. We're using chlorine as a proxy, so every month we know if there's chlorine, there's no bacteria. Now every quarter, we actually do E.coli tests. That's the gold standard to measure if the water is safe to drink through E.coli testing.

We have all these other series of activities where we determine how much water is flowing. We have a results-based funding mechanism so that we will get paid if the water is flowing greater than 96% of the time in the community. Then we have a second layer on top. We'll get paid if the water is safe to drink and it's flowing. We really like to drill down to the details because ultimately the water quality can essentially change every minute. If there's an influx of bacteria for instance. So we really have a very focused approach to measuring that. It's also the communities, we're improving and building their capacity. We're also doing our own checks and making sure that it is actually being effectively implemented.

Ambika Samarthya-Howard: Who pays you? Does the municipality pay you?

Wesley Meier: This is where the creative financing comes in. When we set up, we sell chlorine tablets to the communities, so the communities themselves are paying us for the chlorine, for the actual product. The model I've referenced is a printer and ink cartridge model. We don't jack up the price for ink cartridges, but essentially we install the printer or the chlorinator, and then we sell chlorine tablets on an ongoing basis. That's our direct link. We have a whole supply chain. We've set up 60 different chlorine distribution centers so communities can get access to these chlorine tablets locally.

We have a micro margin on it that gives us one revenue source. The second revenue source is results-based funding. We have the framework created. Right now it's a third-party organization called Uptime, and they have funding from some of the largest water sanitation hygiene foundations in the world.

Some big corporations: Coca-Cola Foundation, Vitol Foundation, Stone Family Foundation, Hilton Conrad Foundation, Osprey Foundation— the biggest water organizations have funded this, to get it started. It's still very new. The goal then is that we would actually transition. We have a mini-grant through the Inter-American Development Bank [IDB] to actually pay through the municipality. As they are the end beneficiary of our work, they would actually measure our results and pay us based on the results of that.

Ambika Samarthya-Howard: Regarding where Rippleworks comes in, where is that money funneled and where does philanthropic funding factor in?

Wesley Meier: In general, back to the chlorine, we make a micro margin. It would take us about seven years to break even just selling chlorine to a community. That's a long period of time. The results-based funding brings that gap down. About 35% of our revenues come from chlorine sales. An additional 30% or 30 to 40% is coming from the results-based contracts. The philanthropic helps us initially get started. That's the upfront kind of funding we need because even when we expand the community, it takes us about six months to actually get the chlorinator installed and to start selling chlorine tablets. This is because we're visiting the community, visiting with the Ministry of Health, then visiting the community again, then doing our sanitary inspections and evaluating the whole system while getting to know the waterboard. Then we're installing and actually selling the product.

Ambika Samarthya-Howard: Can you share a little bit more about the HR experience and the webinars you've been a part of?

Wesley Meier: The webinar, very interactive and intentional. I find value both in they bring in an expert and then they facilitate the experience. There are also a lot of our peers, other social ventures that are going through a similar challenge. I find a lot of

value in the interaction on the peer-to-peer level. It's all virtual, so that's always a challenge, but we got placed into breakout groups and had conversations about individual challenges for HR —that was valuable, that peer to peer interaction.

It's also valuable because it's not always just me. Many times I get invited to other organizations, but I feel like it's always me and I want to get my team built up as well. They specifically have senior-level managers. Not CEO, but getting our team [involved]. They have had courses in Spanish. That's really critical because our whole in-country team is monolingual, Spanish only, so they miss out on the opportunity [otherwise]. They've been really great to help curate some of that.

Ambika Samarthya-Howard: What are some of the things that have been a challenge or haven't worked and can you share some learnings?

Wesley Meier: When we started in 2008 we had five different technology solutions. We had a biogas digester, we had solar. From 2008 to 2016 we were a technology solution provider. I remember coming and pitching at business competitions and I just couldn't articulate what we do. In the end, I would say, we improve the health, wealth, and environment of Nicaraguans. People were like, what do you do? That was one of those aha moments that we were so broad.

We weren't specialized, we weren't experts, we were generalists. One of the solutions was that water chlorinator that I installed in my community. We noticed there was a big need. Then we cut all the other products, and just focused on water. That's one of the biggest learnings that we have, that for eight years we were literally swimming, pun not intended, swimming through these other products in generalizing things.

Then once we focused on water, we went very deep. Now I feel like we're experts in water, but not just water, water quality and water data. People come to us. In every country that we're in, they pay, even NGOs and even governments pay for our services to get things started in some of those areas or to provide these training services. It's such a specialized service, but it's articulated to the needs of Central Americans.

Ambika Samarthya-Howard: What advice would you give to a social innovator who wants to do what you're doing now, maybe through South America?

Wesley Meier: Focus. Find that need and focus. Two, think at a systems level. From the very beginning, even when we had only a few communities and a little bit of work, I was always thinking, how do we create the database or the system around scaling up?

When it comes to training, how do we really think about not just doing a one-off training, but how do we train five people? Now we're at the point where we're way behind on

things. I wish I would've done that even more**.** We were able to go from Nicaragua to Honduras. It was actually a pretty simple expansion because we had the systems in place and it was cut and paste. There's a lot of growth and a lot of learnings in the transition but that helped us even more when we went into El Salvador.

The last thing that has been critical to our growth is that we thrive on collaboration and partnership. We actually expanded in El Salvador through a merger. Another organization that is doing somewhat similar work, we basically went in alongside them. They had about 10 years of experience. We took our model into their organization, and we just ran from there. We're doing the same thing in El Salvador where there's another entrepreneur that was doing some water services for community members. We said, here, let's do our model. It'll be us, but using your platform, your connections, your experience. That's helped us speed up. Instead of starting from scratch, we're starting from something.

Ambika Samarthya-Howard: That's interesting. Are you planning to scale further?

Wesley Meier: Yes we are. Last July, we did mapping and scoping in Guatemala. That was actually USAID wanting us to do work there. We have a lot of interest from other partners as well because it's such a specialized need. We're not going in and digging wells. It's $100,000 a well and a pump. There's systems there so we are determining how to use resources that are already available. I just returned from Mexico through one of our partners Danone—they have a larger water footprint in Mexico, and they want us to come and work there.

We've been asked a lot if we could take our model to Africa. I'm also very cognizant of strategic growth. We're spread thin right now, and we're barely keeping up in three countries, from a team's perspective. We've invested in some training resources. Now, we have a person dedicated to our training, internal control of our data, and making sure we have a high quality. We definitely want to grow, but also want to be smart so that strategically it makes sense.

Ambika Samarthya-Howard: What are the top three things you would need to unlock the ability to scale and sustain the work you do?

Wesley Meier: The way funders fund is very critical. We finally have unlocked another level. We have very strategic partners that funded our model last year. Prior to that, it was about funding a proposal to expand into 20 communities. Last year, our last three main funders funded the model. The value that they provided was really bringing the business, the financial acumen, and technical acumen alongside of the funding.

We are working with the French-based company Danone. They have a ton of water expertise. They're bringing along water quality experts, and they're pushing us higher in our standards. This is also tied to the loan that we're closing with them. It's a win-win. It is requiring us to do more and it's "more expensive" per community, but the quality is better. That's been really helpful.

Another big partner of ours, they're bringing institutional connections to the WASH (water-sanitation and hygiene) space. They're also serving as an advocate for us. They're going out and they're presenting us, our needs and our solutions, And they come back with [suggestions]. There's this new proposal, or there's this new initiative. Being a part of that network has been really critical. I would also say: access to funding the model, the technical expertise, and being an advocate are the three areas we found the most value out of, in what funders [provided].

Ambika Samarthya-Howard: Thank you for your time.

Ambika Samarthya-Howard (she/her) is the Solutions Journalism Network's Chief Innovation Officer: She leads on innovation and technology, leverages communication platforms for the network strategy and creates cool content. She has an MFA from Columbia's Film School and has been creating, teaching and writing at the intersection of storytelling and social good for two decades. She has produced content for Current TV, UNICEF, Havas, Praekelt.org, UNICEF, UNFPA, Save the Children, FCDO, Global Integrity and Prism.

** This interview has been edited and condensed.*