NOW Podcast

SEASON 2 | EPISODE 4 TRANSCRIPT

Solving World Hunger through Innovation | Part 2

Guests: Barron Segar, CEO, World Food Program USA
Manuela Zierau, Global Lead, H2Grow
Ezinne Uzo-Okoro, CEO, Terraformers
Host: Emily High Daniels, Strategic Advisor, Brown Advisory
Investment Commentators: Sid Ahl, CFA, CIO of Private Client, Endowments and Foundations, Brown Advisory
Kirtika Challa, Head of Tunisia Advisory, CrossBoundary

KEN STUZIN: Hello, this is Ken Stuzin. I'm a partner at Brown Advisory. Welcome to the NOW Podcast. NOW stands for Navigating Our World. Through these discussions, we try to better understand the world to navigate some of the most pressing questions that are shaping our lives, our culture, and our investment challenges. As we look to the future, whether we agree or disagree with each other, the one thing we know for sure is that none of us can figure this out on our own. At Brown Advisory, we are focused on raising the future and we hope these NOW conversations will help us do just that.

EMILY HIGH DANIELS: Welcome to part two of our conversation on global hunger and innovation. We'll dive deeper into some of the challenges with Barron Segar, CEO of the World Food Program USA, and talk with two amazing entrepreneurs who are working on the ground to come up with solutions. We know the challenges are significant. Post-COVID, more than 200 million people around the world could be facing starvation, and yet there are so many stories of hope, innovation, and empowerment, a few of which you'll hear in this podcast, showing that we can reduce suffering and create thriving communities.

My name is Emily High Daniels. I'm a strategic advisor with Brown Advisory and a board member of World Food Program USA. I'm passionate about eliminating food insecurity, and I'm excited to explore this very complex problem with some of the innovators who are working on solutions. First, I'm going to talk with Barron, whom I know well next I'll talk with Manuela Zierau, the Global Lead for H2Grow, which works with communities around the world to help them use hydroponics to grow food in impossible places, and with Ezinne Uzo-Okoro, a NASA scientist and CEO of Terraformers, a platform that helps people grow healthy food while providing jobs, income, and training to unemployed youth.

After that, I'll talk with my colleagues, Sid Ahl and Kirtika Challa to discuss the investment implications. That conversation was really interesting, so stay tuned.

The World Food Program is harnessing the power of technology and innovation and its drive to achieve zero hunger by 2030. Whether it's highlighting areas of famine through its digital hunger map, using drones to reach remote areas, or sending instant cash transfers to those most indeed. As we'll hear, WFP is also focused on funding change through its innovation accelerator, which Fast Company named one of the most innovative companies in the world last year. But first, I asked Barron to describe the scale of the challenge facing the World Food Program.

BARRON SEGAR: The forecast for global hunger is one of extreme concern. Emily, I think we're facing the largest humanitarian crisis that the world has seen ever before. We're actually facing a real risk of famine in four countries right now, that's Burkina Faso, parts of Northeast Nigeria, South Sudan, and Yemen. In terms of the World Food Program, we've just taken on the largest humanitarian assistance program ever. We've been asked to support the needs of 138 million people this year.

That's up from just under a hundred million a year ago. Then you throw in COVID, and the trucks, and the cargo ships, and the planes that we have. Just a few months ago, we were transporting, not only the food that keeps people alive, but we were transporting humanitarian workers. We were transporting PPE. We were contracting with other cargo companies to make sure that the needs could be met. We were building additional places where the planes could land and take off. So, we were literally the logistics backbone for the entire UN system.

EMILY HIGH DANIELS: What role does innovation play in reducing global hunger and working towards, at the UN sustainable development goal number two, which is ending global hunger by 2030?

BARRON SEGAR: When you think about innovation, the two things that come to mind around how technology is changing the world is it enhances speed, and enhances scale, and availability. The innovation accelerator was based in 2015, and they test and scale new ideas. I heard that they had 6,000 applicants recently, and then a selection process decides who will then come to this boot camp to be able to present an idea that hopefully will be something that the World Food Program will use to make sustainability a longer term part of our strategy. In just five years, the innovation accelerator has supported 90 different projects in 46 different countries.

EMILY HIGH DANIELS: One solution that has been incubated by the World Food Program's innovation accelerator is H2Grow. H2Grow provides training to help people use its hydroponic agriculture techniques to grow food in what it calls, impossible places, using 90% less water and 75% less space while producing crops twice as fast as traditional methods. Manuela, hello, thank you for joining us.

MANUELA ZIERAU: Oh, thank you. It's a pleasure to be with you today.

EMILY HIGH DANIELS: Their global lead is Manuela Zierau.

MANUELA ZIERAU: H2Grow is a WFP innovation. What we do is we bring locally adaptable and affordable hydroponics solutions to communities around the world. The challenges that we're trying to solve is people not having access to nutritious food and are not able do traditional agriculture because of lack of water, no access to land, no fertile soil like in deserts, and also the effects of changing climate conditions like droughts. This is why hydroponics is such a great fit because it's an agricultural technique that doesn't need soil, uses up to 90% less water, has faster growth cycles, and is much more space efficient.

EMILY HIGH DANIELS: H2Grow now operates in nine countries and aims to expand its work to 21 countries. In part one of our conversation, we spend time with Mira Mehta, who is building a business and empowering a community in Northern Nigeria. In Chad, Nigeria's neighbor, in this Sahel, H2Grow's low tech hydroponic systems are changing lives. Manuela told me Arafa's story.

MANUELA ZIERAU: She's a Sudanese refugee who has been living in the camp in Chad for 17 years after fleeing from the violence in Darfur. She used to be a teacher and is very well respected in her community. She has two children, but depends on humanitarian aid and her livestock to support her family. Imagine a metal shelf, reddish metal shelf, that is a welded by local welders and has seven levels. Each level represents one day of the week. She

cuts jerrycans like water bottles in half. She puts like four jerrycans, half cut jerrycans on the lowest level and fills it with cleaned seed.

In this case, its millet seed, and she makes a thick layer of seed, puts it in the jerrycan and uses a plastic bottle that has a cap with holes in it, and it contains water and she uses it to spray the seed with water in the nose level. Then the next day when she comes back, the seed will have already started sprouting a tiny little bit, and then she will already put it on the second level and start a new batch on the first. In each shelf has a food for one day of the week for her livestock. When those sprouting starts, the seed really grows into each other and develops these like thick seed mats.

They are a bit shiny looking and you can see like the moisture on the seed and the green grass sprouting out of it. Then she can take these mats with her hands and take them outside and put them in, take them apart in smaller pieces, and put them on the ground on the desert, or on the sand. Then the goats can come and eat the seed mats, and it has a higher nutritious value than just feeding, for example, the seed. Now, with the hydroponics technique, she can independently turn one kilogram of seed into 10 kilograms of fodder in only seven days.

Since the project started in 2018, she has now shifted from losing her cattle to feeding them well, and even selling the surplus fodder she grows for her neighbors. This provides her with both enough to feed her family and a source of income. In 2020, actually, in Chad, we built 234 new units producing fresh animal feed without people having to leave their homes. This has been especially important this past year because communities were able to grow around 340 tons of fresh hydroponically grown animal feed in Chad.

EMILY HIGH DANIELS: Now, you talk about H2Grow being a low tech solution for growing food. Why is finding low tech solutions very important?

MANUELA ZIERAU: At H2Grow, we quickly learned that our biggest value add and the space where we can come in and really help make a difference is enabling vulnerable communities to participate and benefit from this technique by going low tech. By doing exactly that, we're making an affordable, accessible and fit for that market. The most important thing here is this long-term vision that we have. There's, for example, no dependence on imports for parts, right? If something breaks, it can be fixed. If something needs to be changed, it can be adapted by the people owning this.

When you look at it, long-term, it's really worthwhile to invest the time now, because once the units are in the field, they last, and they can be repaired, and the knowledge that we share can be used by people also in the future. That's why this is not a short-term play where we think about the next couple of months. This is like six to 10, to 20 years in the future.

EMILY HIGH DANIELS: Even though H2Grow's on the ground model is low tech, I know you all use technology to connect with different organizations. Can you talk about the tech platform that you're building and how it is meant to contribute to farmers' productivity and sustainability?

MANUELA ZIERAU: We have launched our digital H2Grow platform in December, 2020, to bring exactly this community together. For example, users can ask technical questions through an "ask the expert" function. They can upload content and case studies, and our team and our research experts, they review and generate content. So, it basically helps tackle issues quicker. Another important component of this is also the, what we call the Hydro App. Imagine a farmer or a trainer who can download all the training content on their app and go to the field and you review what is most useful to them but offline.

This app that we have created includes also WhatsApp integration, and that links the farmer or the trainer to the local WhatsApp group, and they can tackle the issues or share advice. This is super important because it means that, even when we're not there, they can figure the issues out amongst them and with the advice of their neighbor.

EMILY HIGH DANIELS: Our clients often come to us when they are looking to provide funding to solve any number of world problems, asking us about the best way to do that. Is it making donations? Is it making investments? I think they'd find it interesting to hear from you how you are financing H2Grow in its late startup phase, and then what plans you have for long-term funding, given your expansion goals and the different tiers of products, and how are you addressing that?

MANUELA ZIERAU: Yeah. That's a very interesting question. We have multiple sources of funding right now, like for example, multilateral funds and also private sector funding. We actually have some partners, and this is incredibly important, especially for innovation projects, because they have supported us over multiple years. Without this consistent support, scaling would not be possible. So, it's kind of safety of planning--also long-term planning--that enables us to move forward. But we are working hard to tackle some of our funding roadblocks also through new, more innovative models.

For example, by testing an asset-based loan product this year in the field, because it could unlock a much larger scale in the future. It would basically mean we have providing a farmer with a system on a loan. That could be a certain percentage of the price of the unit or the whole unit, and they would pay back the loan by selling their harvest. So, the idea would be that, because it's a productive asset that we provide the risk for problems like over-indebtedness of this loan would be lower, and this is why we call it an asset-based loan.

EMILY HIGH DANIELS: Is your ultimate goal to no longer have any grants coming in or maybe small grants come in and being purely financed by money that's coming in from plan participant, or how do you think about that?

MANUELA ZIERAU: Our vision is that we can impact millions of people with this low tech approach and showcase, in different countries, it works, it has been working, it's a safer investment. Then also, the value chains around it will strengthen. When I say value chain, I mean the nutrients, and the seeds, and the materials needed in the beginning, but also outcomes, obviously like the connections in the market and the sales of the produce. The vision here is really to reach a certain scale to have these effects on a larger market.

EMILY HIGH DANIELS: For Barron Segar, it's a perfect example of how the World Food Program's innovation accelerator should work.

BARRON SEGAR: You've got this approach that is a solution to climate change, a solution to extreme heat and drought, where mass numbers of individuals are using this strategy to grow food for their families or their livestock, and it's working well, and it's being rolled out on a very big scale.

EMILY HIGH DANIELS: Smaller projects are also making a difference on the ground in West Africa. My next guest hopes to help improve food security while providing jobs in Nigeria, and her ambitions are literally out of this world.

EZINNE UZO-OKORO: Spending the last 16 years building a large spacecraft, I built six of those, and worked on large teams to do that. Built dozens of autonomous small satellites.

EMILY HIGH DANIELS: That's Ezinne Uzo-Okoro. She's a seasoned NASA engineer. She's also the founder and CEO of Terraformers, a platform that connects people living in Lagos who want to eat healthy food with members of the community seeking employment.

EZINNE UZO-OKORO: I have seen the various phases and missions and the goals behind pioneering in space. I also see how food innovations to feed the hungry here really could serve as inspiration for nutrition solutions on the moon or any other location humans might eventually choose to inhabit.

EMILY HIGH DANIELS: Ezinne is building on a tradition where methods learned on this planet are used to help innovate in space and things that were invented for space travel or use here on earth.

EZINNE UZO-OKORO: I was looking for a way to be more innovative and impact more people. I understood how food solutions on earth could influence how we build a new space economy. The food problem has improved on this planet, but it's still dire. Terraformers really can help people eat nutritious food at low costs here, on this planet, through productive and network to backyard gardening, while of course growing mass amounts of produce for space research. So, we figured, if we can do both at the same time, why not? I began taking gardening classes and I founded Terraformers in Silicon Valley, actually as a platform that connects local gardeners with residents.

The mission is simple, it's to grow fresh food anywhere. My foray into entrepreneurship is really not about gardens, it's about empowering communities to feed themselves by growing affordable and fresh produce.

EMILY HIGH DANIELS: Can you help us envision what the surroundings of a Terraformers garden might look like and what the people who are engaged with your organization are doing on a day-to-day basis?

EZINNE UZO-OKORO: Imagine your backyard, so imagine a plot that's about four feet wide, four feet high, and about 20 feet long. It's got seven rows starting from the back, one row for cucumbers, another row for spinach and then onions, and then you've got peppers and a nice neat row of lettuce. Then you've got two more rows left. That's where I really like to get creative, so our team, we put rosemary, and thyme, and basil, and some edible flowers. Our goal is to ensure that everyone receives, at least 40% of their perishable produce needs from these gardens.

Our team works primarily by phone. So, they get text messages of requests from customers who are interested in having a personalized garden at home, and then we match them. We use an algorithm to match the customer to a local gardener. Now, once we've done that match, then the gardener goes into the home, ensures that there is a source of light and a water source that's close by and they begin their work of building a garden.

EMILY HIGH DANIELS: What are some of the impacts that you've seen of this program on the people involved as well as their communities and the local economy?

EZINNE UZO-OKORO: One, really the provision of employment for over a hundred underemployed youth. That's our biggest impact, I would say. We've also helped hundreds of families eat more nutritious food at low costs by installing gardens, and we are building communities to become more knowledgeable about how to grow their own produce using churches and schools as treating facilities and encouraging harvest days and recipe sharing so that people know what to do with a new kind of pepper that they haven't seen, or a new kind of vegetable that they haven't seen.

EMILY HIGH DANIELS: Ezinne, what has been the impact you've seen from your work employing these unemployed or underemployed gardeners?

EZINNE UZO-OKORO: Some of these youth have become the breadwinners for their family and their families now have three square meals a day. Some of them are saving the funds so that they can take a technical class, whether it's a software class, coding class, or class in hardware, electrical engineering, so that they can acquire a different skillset. Some of these kids are also, because some of them really are about the age of 21, are spending the money on a vehicle, on a motorbike. Then now they have a motorbike. Their business can expand. They can have more customers, which doubles or triples their income, and we've seen that for about a quarter of them.

There are two kinds of people in Lagos that I like to talk about. Diana fits into one group. She's food insecure and underemployed. Two out of three negotiations are food insecure, just like her. Then you imagine someone like Uche, who runs a business in Lekki Beach and wants fresh organic vegetables for her children. Our work is to connect these two kinds of people together. Diana now has been gardening with us for over 18 months. She's got customer service skills, she's got gardening skills. She knows how to run a business now because she manages herself.

Despite the pandemic, she now has a bit of money and is using it to accomplish one of her goals, which is to take a coding class in the spring of this year. How neat is that?

EMILY HIGH DANIELS: That is great. That is great. A lot of our clients are trying to figure out how to fund change effectively. Can you talk about the decision to structure Terraformers as a for-profit company, rather than an NGO, and maybe talk about any relationships or partnerships that you have with NGOs that make your job a little bit easier?

EZINNE UZO-OKORO: I love that question. There are three key reasons for us. We found that there's a demographic that's willing to pay for personalized gardening services, and there also exists a demographic that wants employment opportunity, so we found ourselves a market. That was the first reason. The second reason is, that in thinking differently, specifically using a systems approach to a complex problem, like food insecurity, we hope to show that there are multiple ways of attacking a different problem, and so far, it's worked.

The third reason is people really want to earn a living and be independent, and that's why this is really not about just gardening, it's about the transformative power of giving people their dignity and teaching them, and empowering their communities to become self-reliant. We have a number of NGO partnerships that we are very fortunate to have and work with very closely. One is a cooperation of small holder farmers outside of Lagos State. The people who train the unemployed to become gardeners are these small holder farmers.

Usually, during the dry season, they have some amount of downtime because they don't have a regular harvest and they're not growing as often. What they do is they come into the city, they train the unemployed youth, teach them how to garden.

EMILY HIGH DANIELS: If we are looking into the future, what is your vision for the future of Terraformers?

EZINNE UZO-OKORO: One of the things I'm interested in is building the CIS lunar economy. CIS lunar is a space between the earth and the moon. We were promised this in the '80s, space hotels. It's not here yet. If you're going to have a space hotel, if you're going to have humans in the CIS lunar space, it means we need to feed them, and to provide food for in space means providing food and includes spaces in extreme environments. Where do we start?

How do we learn how to do that? And how do we do that with so that we know it works in space? Well, we need to start here on this planet.

EZINNE UZO-OKORO: Thankfully, we can use the produce that comes out of this experiment, if you will, so Terraformers aims to really become a large food production company with the focus on efficient systems for say an oxygen and nitrogen mix, efficient frequency of light in support for photosynthesis, or efficient substrates to use. What kind of soil do we use? Do we use brackish water sometimes instead of clean water? How do we recycle? Do we use effective hydration system? And a seed adaptability for this planet and in space.

That's part of a reason why I enjoy my work at NASA. It's something bigger than me. It's bigger than all of us living today because some of the contributions we make will continue to influence other generations. Similarly, the gardeners in Nigeria know that the information that we glean from growing food now that will help with the food production business helps us to make gains in growing food in space.

EMILY HIGH DANIELS: What has winning the Nobel Peace Prize meant to World Food Program?

BARRON SEGAR: The Nobel Peace Prize was a humbling experience, that it was a spotlight on the world and what hunger means, that food is a pathway to peace. I'm incredibly honored to be working here in my lifetime. I've never seen a greater need. I've never seen such a large number of people that are relying on the World Food Program for their next meal. One thing that I think that your audience would also like to know is just last year, we actually received three incredible awards here in the United States for our innovation work.

Apple just awarded the World Food Program their best app of the year award for an app called Share the Meal, an incredible honor, and it's 3.2 million users that go on this app, and they have funded over 90 million meals. It allows you to actually track where the meals are going. It's one thing for me as the head of the World Food Program, USA, to mention how proud I am of our work around innovation, but it's another thing when Apple and Fast Companies are recognizing the World Food Program as one of the best innovators in the world.

MANUELA ZIERAU: Food insecurity is one of the biggest problems on this planet, and we actually, we haven't solved it yet. There's a need to think differently and take chances on new ways of doing things. Innovation is much more than just developing a new idea that didn't exist before. It's more of a mindset, the ability to critically reflect on problems from multiple perspectives and the openness to change our thinking.

EMILY HIGH DANIELS: Thanks to Barron, Manuela, and Ezinne for joining us and helping us learn. I'll be back in a minute with Sid and Kirtika to talk about some of our investment takeaways.

The conversations with Barron, Mira, Manuela, and Ezinne raise a lot of questions. For example, how do we create impact at scale? What is the role of private capital in solving systemic social challenges? And how do change agents decide between for-profit and not-for-profit enterprise models? I wanted to sort out what we learned with two of my colleagues Sid Ahl, and Kirtika Challa. Sid is Brown advisory's chief investment officer for our private client, endowments, and foundations practice. And Kirtika leads the Tunisian Advisory practice at CrossBoundary, or frontier market partners.

This podcast is about innovation and efforts to solve global hunger and food security issues, and how improvements in food security can be powerful community building and economic development drivers. One of the things that we talked about with our guests was the role of private capital. So, Sid, let me start off by asking you, how do you think

about allocating client capital to frontier markets, for example, Nigeria, where Tomato Jos and Terraformers are based? For what kinds of clients does frontier market investing makes sense?

SID AHL: I think the history of frontier markets is that it's an asset class that has a decent amount of volatility and not enough liquidity for firms like us to have meaningful allocations to, and the hope is that, as the economies of Africa develop, there will be much deeper and more liquid markets on the public side for us to be investing in and we can unlock the potential of a billion people on the continent. I think, for the time being, our approach is more towards the private side of the equation and thinking about some of the sustainable oriented investments that our friends at CrossBoundary are leading the charge on.

I think, for right now, what's most interesting is the power of a dollar put to work in sustainable and impact oriented investments in places like Nigeria. I think that's what's really appealing to some of our more sustainably oriented clients.

EMILY HIGH DANIELS: Kirtika, what is the role for private capital and financing businesses in developing markets like parts of Nigeria compared with grant funding?

KIRTIKA CHALLA: The composition of capital to me really depends on where the company is located, what the sector is, what the context is. But in some ways, this is also true for developed markets, right? Take Nigeria, for example, and specifically electrification in Nigeria. When I started at CrossBoundary and joined the Nigeria team in Lagos, our main mandate was increasing access to electricity. In Nigeria, 45% of Nigerians do not have access to electricity, and off those that do have access, 40% are under electrified.

Now, the range of customers in electricity access goes all the way from a rural customer that has never seen electricity before, completely run on potentially kerosene driven motors, all the way up to an industrial factory that just has very expensive unreliable electricity. So, the composition of whether that needs the grant funding or private capital really changes. At the completely rural, and it's probably 50% grant-funded or 50% or higher, at the completely commercial, and it can be purely commercially funded.

For example, the Nigeria Electrification Program had $350 million commitment from USAID towards rural electrification. Then you have a company like Rensource that does market-based electrification in Nigeria raise pure private capital and raise their 20 million recent round. I think one way to think about it is grants represent about negative 100% return in some senses of the world. Repayable grant is a 0% return. Pure private capital in emerging markets is usually seeking 15% to 25% of hard currency return, and that's the range that we have to play with.

I think what we haven't figured out is, how do you match these two mindsets and these two capital sources more efficiently. I think that's really also core philosophy at CrossBoundary where [inaudible] is unlocking capital for sustainable growth and strong returns on underserved markets, and the efficient marriage of these two sources is a big part of that story.

SID AHL: I have a question for Emily. As a strategic advisor, you spend a lot of time working with clients on their philanthropic goals and plans. A lot of clients want to understand how to fund change effectively. How do you think about this in terms of creating impact through outright charitable donations versus investments in social enterprises?

EMILY HIGH DANIELS: I'll say that these kinds of conversations have changed a lot over the years as I engage with a new generation of potential philanthropists. There's an erosion of that wall between purely gratuitous charitable

giving and the concept of doing well by doing good. The people who don't feel like living a mission-driven life is relegated just to that area of philanthropy, where you cut a check, and they are trying to discuss how mission can be incorporated throughout all aspects of their lives. With regard to deploying capital specifically, I encourage clients to really understand the issue and the theories of change that leads them to solving that issue, and then we can target their activities, capital deployment or otherwise accordingly.

EMILY HIGH DANIELS: As people are increasingly well-versed in social entrepreneurship and impact investing and blended finance, we can get into discussions about the best economic model for solving a particular issue. Is it an issue where perhaps a market-based solution could work, but for some sticking point, that could use a little bit of extra funding or attention? Is it an issue that is more of a public good or something that is partially funded by public funds, but can use a little bit of extra financial boost?

SID AHL: It's interesting that philanthropy's the tip of the iceberg, and then there's a bit of the iceberg above the water that is that next level of impact investing, and then as we've talked a lot about, a large chunk of people's portfolios that has traditionally been invested without any conscience or thought of environmental or social impact, that's another finger you can put on the scale towards that mission or those concerns that you have as a societal participant.

EMILY HIGH DANIELS: Sid, are you finding that clients that are showing up today are just a bit more well-versed in those issues than they used to be, they're coming to you already knowledgeable about those concepts?

SID AHL: I think they are coming more knowledgeable, but I would still say, a lot of what we're doing is answering questions and educating on that spectrum, and we're also still doing a lot of work ourselves. I think our partnership with CrossBoundary is another era of us learning about how we can become better impact investors and improve our own view of what sustainability means to us and our clients. I think what has meaningfully increased is the number of questions that we get from clients in their consciousness about these issues and wanting to learn alongside us.

KIRTIKA CHALLA: I'll just add to that. At CrossBoundary, we are also learning and pushing the frontier. So, we are testing a theory now where we've created a structure using USAID funding that can be used by a portfolio of early stage companies to try to crowd in private funding. So, we say that, for every a hundred dollars that you raise, you get access to $10 to $20 of USAID funding. The idea is to see, does this accelerate the fund raise process? Does this create more attraction of international investors, just as bring first-time investors to the country that haven't done it before? And then use that as a feedback loop to see, okay, if this is not working well, how can USAID and donor funding be used more efficiently? Rather than just giving grants out.

EMILY HIGH DANIELS: What are your thoughts on how Biden's selection of Samantha Power to leave USAID and giving her a seat at the White House Security Council influence investment opportunities for private capital in African markets?

KIRTIKA CHALLA: We're very excited by Samantha Power's nomination because of a history of public service that she brings being the ambassador to the UN and National Security Council staff. But my colleague used a really great analogy the other day when I was chatting to her about this, where she said, "If you think about USAID, essentially as a regular diet and exercise and healthy lifestyle, and then you think about the state department as sort of medicine and antibiotics." To us, a seat at the table for USAID at the White House Security Council is really acknowledging the fact that preventative measures and long-term sustainability goals are as important, if not more, to the health of the body.

That's really exciting because by putting long-term stability and developmental goals at the core or the forefront of our foreign policy, that sort of creates the environment and the space for private funding to enter these markets. Because one of the reasons why private capital is a bit hesitant is higher perception of risk of feeling that it's unstable, a thought that you don't get enough return for the amount of risk that you take. The foreign currency is too volatile.

Long-term developmental goals are aimed at creating more of a stability in a lot of these emerging markets. By putting that at the front of our foreign policy, I think it will create positive ripple effects for private solutions in a lot of these markets.

SID AHL: I guess, all I'd add to that is that's that positive feedback loop that I'm so curious to hear Kirtika where you think we are in that process, what stage, but that's the feedback loop that when you start to unlock the number of people that can have food security and the health that they need to become entrepreneurs, and eventually to become consumers and help drive the economy and the kind of growth and unlock that potential a billion people on the continent. That becomes a multi-decade long sustainable cycle that I think is what is the most exciting for us as both investors and socially conscious investors to think about.

KIRTIKA CHALLA: I think the presence of risk is always analogous with the presence of opportunity. If something's risky, if something is harder to do, there's probably fewer people doing it, which means, if you're willing to take the effort, like Mira spent years and years trying to figure out how to increase sugar content of tomatoes to be able to process tomato paste, you'll be the only one doing it, and that is competitive advantage. I think the difference is trying to shift the perspective from the way people think about investing, and VC, and growth in the developed markets, where you have existing infrastructures that allow for really quick growth, and understanding that it will just be slower in emerging markets.

EMILY HIGH DANIELS: Sid, can we come back to that concept of risk? The risks are clearly significant, but we also know that a client's dollars can go a lot further and create substantially more impact in emerging markets. How do you think about that risk reward analysis?

SID AHL: I guess I think about it two ways. One, obviously anytime we go further afield and we're taking on currency risk or the risk of a perhaps less stable economic or government environment, we typically require a higher rate of return. But because we're also, in some instances here, talking about sustainability and impact, then you have the intersection of that framework with the values framework of our investors, of our clients. If you can earn a competitive rate of return with other regions of the world, or perhaps, even in some instances, take a slightly lower return per unit of risk to be that kind of bridge capital to get these ecosystems going, there are clients that want to take that on.

If you can, with a million dollars, have the human impact of a hundred million dollars in the States, there are many clients for whom that's very appealing. I think we do still find some impact investments that are more than compensating for the risk, but we also want to have, in our toolbox, some, where we can be the agent that helps kick start that ecosystem and take something that is a return that is similar or slightly lower per unit of risk, but where the reward is measured in other ways. I think we, as investors, need to have all those tools in our toolbox, because every individual is different in terms of their own values.

EMILY HIGH DANIELS: Kirtika, I think listeners would enjoy hearing something about the venture capital ecosystem outside of Silicon Valley. You're based in Tunis. Now you spent time working in Lagos. You've compared Lagos to Mumbai. Can you just talk more about that?

KIRTIKA CHALLA: Yeah, absolutely. Maybe I'll make it a bit broader about sort of the investment landscape and what I see as the opportunities and the challenges potentially. I compare Lagos to Mumbai, particularly when I think about Mumbai, Bombay India growing up about 20 years ago. So, we had electricity cuts. Water was an issue. Gas would be supplied to the house by a guy that would battle big gas canisters to the home once a week. But today, gas is piped into our apartment, electricity isn't an issue. Water is an issue. And I'm talking about Mumbai, very open developed part of the country, obviously not true for everywhere.

But in Lagos, it's still where, I think India was 20 years ago. I was living in the nicest neighborhood Lagos, Victoria Island, in a block of apartments called 1004, where the elevator broke down, the water would sometimes get cut so we would store water in these two liter bottles in case we needed to take a shower, but didn't have access to water. But I think, to me, the battle's really interesting because you can see where the country could go. You can see another country that had that issue that has realized the potential and gotten there.

I think the challenges in Nigeria is really like the lack of infrastructure and the fact that businesses have to build infrastructure alongside their own businesses as they grow. But that being said, it's a country with nearly 200 million people. 50% of the population is under 19 years of age. They're hard workers. There's a concept of hustle. I think that the biggest challenge is infrastructure, but I think that's also where the biggest opportunity lies, and so you're asking a lot of incubators trying to incubate businesses that can overcome these solutions.

I think, if I compare Tunisia to that, the infrastructure is quite good. Electricity isn't much of an issue. They are trying to switch more towards renewable energy, but I think access to capital is still a problem because it's a small country. Its 12 million people. It still has capital constraints, but I also think again, there's huge potential. It's very close to Europe. It has extremely highly educated population, lots of engineers, lots of people focused on technical fields. You are again, seeing the growth of ecosystem players. I think the point is that, wherever you go, you can find the challenges, but you can also find the opportunities.

EMILY HIGH DANIELS: Kirtika and Sid, thank you so much for joining us today. This was a great conversation. I'm glad you could join us.

SID AHL: Thanks so much. I learned a lot.

KIRTIKA CHALLA: Thanks, Emily and Sid, it was a pleasure speaking with you both.

KEN STUZIN: Hello again, this is Ken Stuzin. Thank you for joining us as we continue this effort to seek out insights that help us understand our rapidly evolving world. If you enjoyed listening, we encourage you to subscribe to the podcast. We will be back next week with executives from both Etsy and GoDaddy to explore how micro businesses are leveraging online platforms to grow, and in turn, drive economic growth for their communities. Until then, be well and stay safe.