

PASSING DOWN GENERATIONAL KNOWLEDGE: ON THE FARM AND ACROSS THE INDUSTRY

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Facilitator:

Lindiwe Sibanda – Chairperson, CGIAR System Board

Tim Bardole – Farmer and Director, Unted Soybean Board and Iowa Soybean Association

Alejandro Jaramillo Trujillo – Chief Executive Officer, Grupo Bios Animal Nutrition

Sejro Michael Oke-Tojinu – Aquaculture Farmer, Nigeria | Sej Farms

Facilitator

Lindiwe Sibanda

Good afternoon. As you enjoy your sumptuous main meal and desserts, all soy, it's only proper that we give you some experiences from the legends who made who we are today. I'm excited to be a moderator for this exciting panel that takes us back to our roots—*Passing Down Generational Knowledge: On the Farm and Across Industry*—"from farm to fork," as we now say. It's not just about the farmer.

My name is Lindiwe Majele Sibanda. I am here on behalf of the CGIAR, which is the largest public-funded research entity charged with delivering transformation of food systems, land systems, water systems in the face of climate change.

My grandmother, who passed on 45 years ago, is smiling, as she sees me lead this panel. I say this because I was raised on a one-acre farm in Norgway Village in Zimbabwe. Every night we would all sleep on cowhide skin, which formed the mattress, not because we were poor but because we slaughtered a cow every year to celebrate end of the year with the whole family. My grandmother had 6 children but 65 grandchildren. Every school holiday we went to the farm to help with the farmwork.

That is why agriculture is in my blood; and as the tradition, part of my mother, soon after birth when it's cut, was taken to my grandmother, and she buried it at the doorstep of her kitchen—from farm to fork, I've maintained that connection. Every morning she woke us up in prayer, and her one prayer was—"May all my grandchildren work hard to be farmers that not only feed their families but feed the entire village." It is therefore no surprise that I chose a career in agriculture. But I then went on to specialize in goat production; because, as we grew up, there was a goat slaughtered every month. We only got 40 grams of meat every day, and I always wished that when I grow up, I will have many goats and have meat for every meal.

I then went on to buy my own farm and named it after my grandmother. My EMB farm in Zimbabwe is currently operational, and that's my happy space—that's where I spend most of my time.

It is that prayer that woke us up every day as grandchildren that inspires me every day to do what I do. It's a calling, and I will not stop because it keeps my grandmother smiling.

Let's look at what *Passing Down Generational Knowledge on the Farm and Across Industry* means. Definitely, generational farming is not just about keeping the legacy of humans strong and prosperous for your family. It extends beyond family ties to a positive generational impact on your community, on the food, and the agricultural industries in our global societies. The

knowledge transferred from generation to generation ensures the fertility of the soil on the farm, the tenacity in navigating extreme wet and dry seasons in agriculture production, and adaptability in processing, refining, and milling techniques to sustain feed and food security.

We are here to hear about U.S. soy support in connecting strategic partners and local business leaders across the world to increase demand, provide educational opportunities, and drive economic growth as a win-win solution.

Lindiwe Let's hear from our eminent panelists who are going to take us down memory lane. They are going to introduce themselves, but most important they are going to talk about the role they have with the soil organization they represent and how, from their intergenerational lines, they've become who they are today. Over to Tim.

Tim I am Tim Bardole. I farm about 50 miles northwest of here, so I'm not very far from home, which is different than a lot of people here. To start with, I want to say how honored I am to have this opportunity. My son Skyler interned at the World Food Prize when he was in college, and my activity in the soy organizations and specifically USB—I grew up with my dad being very active in all the state and national soybean organizations. And it gave me a real knowledge of the importance of what these organizations do. Specifically, as a director on the United Soybean Board and WISH Committee member—which, you'll hear more about WISH from other panelists—but USB, or the United Soybean Board, uses the Check-off money that comes from soybean farmers around the country to be invested to help in their operation and production and worldwide for exports. So that's kind of the base of my background.

Lindiwe Thank you, Tim. It's good that you've been deep in the woods and the whole family tradition continues. Over to you, Alejandro. What brings you here, and what's your story? Who inspired you to do what you do every day?

Alejandro I'm Alejandro Jaramillo Trujillo, and I represent Grupo Bios. Grupo Bios is a holding company in the Colombian agribusiness sector. We are focused and passionate about giving nutrition to all, while developing the Colombian countryside—that's the purpose of our organization. And on the company we have a b2c Division where we focus direct to consumer with pork, meat, chicken meat and pet food. We have also an Animal Nutrition Division and Genetics. I'm the head of Animal Nutrition Division, and we produce more than 10 million metric tons of compound feed that we sell to small, medium, and large producers in the country. We have a share market roughly 23 to 25% of the market share in the country. And I'm very grateful to be here to share how, with help and passing down that traditional knowledge.

Lindiwe Excellent story. Thank you. Over to you, Sejiro. What brings you here, and what's your connection to soy?

Sejiro My name is Sejiro. I'm the Director of Sej Farms, consult in Nigeria, and I'm doing this in the aquaculture space with my wife, and mind you, my wife is a woman, and I have to kids, two young boys that we are doing this together. And I have to increase the passion for what I'm doing in the aquaculture space, because a few years ago, My older son is ten. He's gonna be ten next week, and he told me that, "Daddy, sell your farm and buy a bigger one in Canda" I said, "No." The business here... so I have to put in so much dedication into what I'm doing." And I found

out that there's not a job in the agri-sector in Nigeria. Most of the graduates, when they graduate from school, over 90% of them, they don't want to start it all to practice. So I take that upon myself. I said, "The change is gonna start with me." So I started training young people even as an undergraduate.

Lindiwe I'll come back to that. So, Sejiro, you're saying it's a challenge; there's a knowledge gap. Let's come to the U.S. Tim, your grandfather's been doing soy, your father did soy, you are doing soy, your son is into it. Can you walk us through the technology changes that you have gone through to keep you as a leader in the market and in the industry?

Tim And it really all starts back in 1901 when my great-great grandfather bought the ground where I live today. Really, from the beginning it's... And this is not unique to our family, but the family farms, you want to leave it better than you found it. And as you go from generation to generation, you're always wanting to make improvements.

Of course, in 1901 all the farming was done with horses, and my grandfather started farming during the Great Depression, which was a rough time. And he was the first one to have a tractor, and then as time goes on there is a lot of new technologies. But it was always done with stewardship in mind, taking care of the soil, taking care of the livestock, taking care of your families and your community.

Well, as time goes on, today it's—and I think it was said earlier—it's a world community. It's not just your township or your state. You know, we're all connected more than ever, and we'll probably continue to be.

With agriculture and the way we farm, we started no-tilling in 1993. Before there was really all the technology to make it easy. And as technology has come along through genetics, through equipment, it makes no-till very advantageous to us and good for the soil. With USB has funded Farmers for Soil Health to help educate farmers who aren't doing the no-till or cover crops a little more on the value of that ecosystem that's below ground—that is where we make our living, is what is below ground, the microbes and everything to make and produce the crop.

So it's all about making it better. And my son who's farming with us, when I'm done, I want it to be better than when I started. And hopefully his son, my grandson, will be farming. And it's very important to farm families to be a part of the ground.

Lindiwe I love that prayer. You've said it loud. You pray that your son's children and great-grandchildren remain on the land, not only feeding people but feeding the soil. Thank you very much, Tim. You did not mention hand hoe. You started from a tractor. Did you ever use a hand hoe?

Tim Well, growing up, walking beans, did all the time. But I've tried to get that out of my mind. It was pretty horrible, so...

Lindiwe Well, good news is that we in Africa are on a journey to banish the hand hoe into a museum.

Tim There you go.

Lindiwe But we are not moving fast enough. Help us move fast. Let me move to you, Alejandro. Your mission statement and the Grupo Bios, and this is the seventh year history that we are riding on, is nourish everyone by developing the Colombian

countryside. How does technology come into all that? What has been the journey that you have walked? And what has kept you going and modernized?

Alejandro To accomplish that mission, we need to help our clients thrive in their business. And for that, we've focused all of our efforts to help them improve on the genetics, nutrition, safety, biosecurity, management, and sustainability of their production. With that, we build businesses around that have created communities, rural communities, and having the chance of the people to stay in the countryside. They can develop, they can have a job, and they can have opportunities.

While developing those different productions, we start to learn and improve, having various of those policies, we learn from them, and we try to improve all of those traditional technologies that they've been using, with implementing modern techniques, modern technology.

Lindiwe What are those techniques, those modern techniques?

Alejandro Those modern techniques on the production. It's how you can improve yield on the feed production. You can produce more protein with less inputs. That it's one forward focus also, that we've learned if we continue building with those communities, we can produce more with less inputs in a way that it's friendlier with the environment and also with the animals. And we found that with the alliance and these collaborations that we've had with the United States Soy Council USSEC, we've been also expanding that network to bring new technologies, new education to our people in our company. So with our team, we can spread that to Colombia and the countryside.

Lindiwe But just take us to your connection with USSEC's, Soy Excellence Center. What do you get from them? What do you give? Why does it become a center of Excellence?

Alejandro We buy the soybeans and the soybean meal from the states, from all of the soy family farmers. It's a great soybean meal, great quality that we use in our feed, and with those products, we have that better yield of production. And with the Soy Excellence Center, it's been a crucial thing for us, because we have the chance to educate more than 800 persons in our company – 800, that is not a small number of persons. In all of the company we have roughly 8,000 employees in the company.

Lindiwe Wow.

Alejandro That's 10% of the workforce on different levels of the organization. I was talking to Jim earlier – that's one of the persons that had the chance to go on one of those programs. He went to Panama, another one to Honduras, to have feed production capacity. And it was the first time this person had the chance to jump in a plane, go to another place, and be with a lot of people creating connections. And that is how we think traditional knowledge and this transitional knowledge can be transferred, while creating networks where we can start with those rural communities, having companies that can connect those dots and then start to expand and broaden our network, having the chance to educate ourselves to continue giving opportunities to the people in the rural side of Colombia.

Lindiwe Thank you very much. So my generation, the knowledge came from our grandparents. We went to school, we went to college, and the knowledge came from our kids. Now you form cross-border, international networks – and that is feeding you, and you are feeding them.

Alejandro That's right.

- Lindiwe So it's a platform for exchange of knowledge. Excellent idea. Let me come to you, my brother Sejiro. So you are associated with the Assa WISH United Soybean Board. What do they do for you? What do you do with them? It's a partnership that is feeding into your aquaculture business. Unpack it for us.
- Sejiro All right, like I said, there was a knowledge gap. And they came in as partners to strengthen the vision of bridging that gap, and which, and deliberately we set a clock from that. We needed to bring in other pieces to help us. There are well over now about 500 species of aquatic lines that are being cultured. And, but in Nigeria and Africa we are known for basically catfish and tilapia too. And I thought there is so much we need to do. The governments can't do it alone. We need to support the government as private individuals. So we want to break new ground. So are then currently, doing special domestication of our indigenous species of fish so that we can have more species to deal with in the aquaculture space. Nigeria is so blessed with resources beyond any of that that is in the world. In fact what Lagos has in terms of particular aquatic resources, some nations of the world don't have it, and I feel we need to explore that together.
- So the WISH partnership has really helped.
- Lindiwe What does WISH stand for?
- Sejiro WISH is Water Initiative for Soil and Human Health, is an arm of the American Enterprise Association. So they had the first pilot scheme with us this year to train young professionals in aquaculture, since there was a knowledge gap. And we did that. We had about 70% of young women among those we trained. And because my wife Judy is involved, we are running it together, so it's attractive. Now most of them, because they are not interested in taking it further, their career path. But seeing all the young people and as young couples, a lot of them are now interested. So we support. It's like learn and earn. They fund them while they are learning with us, and they provide accommodation for them on the feeding. So it makes them concentrate more. And in addition to that too, a lot of them now have career paths in aquaculture. And because the aquaculture value chain is so broad, the value addition, there is production, there's genetics a lot like – what we do now is our intent of technology, these are some of the products from the farm. And this is a fish cracker, goes like the brown cracker is a product from catfish and cassava starch, that is the fish egg, and this is the fish filling. We've been able to develop over 15 products from one fish, as I speak to you now.
- Lindiwe 15 products.
- Sejiro Yes, and since my kids are young, so I have so many other foster kids – those are the young people in Africa. So immediately as we get that knowledge we are transferring it, so that it can be a sustainable plant and the vision cannot leave me.
- Lindiwe So we've got an internship program, yeah, and there's so many youths are on that. Can you shout out if you are part of the internship, internship scholars? I'm sure they're in the crowd. I want to hear about the numbers in Nigeria on this program. How many are they, and what's the projection?
- Sejiro All right, for now we've been able to train over 5,000 youths from inception.
- Lindiwe How many?
- Sejiro About 5,000 youths from inception. I started training the youths as an undergraduate, so when I was in 400 level there were about five of my classmates

that did the internship with me. And I've never written an application for a job all my life. And so since then we've been having several students come in to us from different institutions in the country for internships. And also we have a partnership with IITA, that they are funded by the MasterCard Foundation. So the I Youth in our facility, and have a great pact. So with those there is no... We want to find, view the future in aquaculture space in Nigeria and so that's what we do... And the numbers are increasing. Where we have the youth, the WISH initiative, it became so overwhelming, everybody from every institution wants to come to Sear farms and that we have to keep doing.

Lindiwe Thank you so much, Sejiro, for taking us to Nigeria. Now that you have mentioned IITA...?

Sejiro OK, IITA is International Institute for Tropical Agriculture, so there is...

Lindiwe That's one...

Sejiro Yes, there's an IUA, which is Innovative Youth in Agriculture, so that also runs within our facility.

Lindiwe So IITA is a center, international agricultural center in Africa, which is fed by regional centers that belong to the CGIAR. Now, we've come back as one family, which we call One CGIAR, because we realize the world's problems are bigger than one center. So under the mission for One CGIAR. We believe that we can transform our food, land, and water systems so that we can, in the face of climate change, deliver technologies that will make us not just food secure, nutrition secure, but feed our planet. I'm going to just unpack in a few minutes what that means.

We are moving to 2025. All our 13 centers are driving one strategy. Under that strategy, we have a portfolio of eight mega programs. And what we have committed to deliver with those eight mega research programs is that we want to be accountable for five impact areas. If you go on our website, you'll see the five.

Number 1 is nutrition, health and food security. Five years coincides with 2030, SDG goals must be met and agriculture and sustainable food systems talks to all the 17 Sustainable Development Goals.

Number 2. We commit to reducing poverty, enabled livelihoods, and making sure we create jobs. You heard our heads of states this morning talking about –if I want to be remembered, Madam Head of State, Tanzania State, it will be nutrition, malnutrition goes to the museum, and we create more jobs.

Number 3. We want to be accountable stewards for the environment.

Number 4. On gender equality and youth and social inclusion, we have a scorecard.

Number 5. We want to make sure climate adaptation and mitigation cuts across all our programs.

Now, with all those impact areas, what are the accelerators? What is this that will allow us to scale fast? We are going to make sure: 1) Gender equality inclusion is a key driver and accelerator; 2) Digital transformation: we are in that age – we cannot ignore that; and finally, 3) Capacity sharing and partnerships. And kudos to the Soy Association. You are doing it and walking the talk. And at CGIAR we are proud that you are touching all the corners that relate to our strategy. For us, tune in to the CGIAR 8-5-3, 8 programs, 5 impact areas, and 3 accelerators by 2030 – we promise to deliver.

Let me come back to my panel. Soy. Tim, we have talked about the intergenerational change. We've talked about what you are doing. What do you see in the horizon? My promise on behalf of the One CGIAR family is to fight impact areas. What do you see in the horizon?

Tim Well, sustainable agriculture is definitely expanding, and farmers are getting a better handle on what they need to do and how to do it to mitigate really the stress of doing something that nobody did – like when some of the stuff we started, we didn't have anybody to look to. So I think that is something that's going to continue.

With what USB, some of the things they are funding, one is crops that can withstand being underwater for a couple days. Here, where you are in Des Moines, if you go north/northwest, clear past the Minnesota border, in a heavy rain, there's gonna be all kinds of ponds – there are drowned-out areas. Well, that low ground is some of the most productive farm ground in the world. And if you can get genetics to withstand some of that water for a day or two longer than they would normally, all of a sudden those productive acres are being able to be used every year, which in turn puts that much more product to the world.

And the young people like Skyler, and to be honest with you, my brother and I in agriculture are considered young also, unfortunately for agriculture. But there is so much technology, whether it's the genetics, equipment, guidance systems, being able to apply either seed or herbicide, fertilizer, to virtually a square foot in a field. And that kind of thing is somewhat overwhelming as you get older but very exciting for the younger generation. And there is more. It's not just sitting in a tractor or walking through the hog barn or whatever. It's technology. And these young minds, they're interested, and we gotta make sure that there's a place in U.S. agriculture for the youth to come.

Lindiwe Excellent. So if I may ask – I won't ask for your age – but how long have you been farming on the family farm?

Tim I started at, well, really my whole life to a degree, but full time in 1990 after I graduated from Iowa State University.

Lindiwe Wow! And you're still considered a baby?

Tim I'm a young farmer, unfortunately, yeah. Now, my son, he's the baby farmer, so...

Lindiwe I can connect to that story. My dad is 94 years old. He has his own farm, and he believes he's still farming. He pays his staff from his own pocket, he manages everything, of course wrong. But he says to me, "You have a lot to learn, young gal – this is the wrong thing" – every time I do something. Then he goes to his friend and says, "What a great job she's doing." So let's hang in there. Let's hang in there. Thanks, Tim. Alejandro, what do you see in the horizon – 2030? That's close.

Alejandro I want to deal down on something Tim said, and it's about all the efforts that U.S. farmers are making with sustainable production and how that sustainable production can feed into the market. Again, so now through USSEC and our suppliers we are getting certificates for our purchasing of either soybeans or soybean meal that are sustainable. And with those certs we have our plants certified for sustainable feed production manufacturing, mainly for agriculture. And with that plant certified, we sell to our clients that are producers in tilapia, and that tilapia is exported here to the U.S. And now Colombia is the main supplier of fresh tilapia to the U.S. And those are those types of alliances and things that you guys have started on the field,

having that sustainable, we have a sustainable production also using new technologies such as the IPRS where we produce more tilapia, our clients produce more tilapia meat with less usage of water. And we have really good conversion rates on the tilapia production.

So to answer your question, we see all of these food systems continue to transform in a more sustainable way where we can achieve food security for our nations while having more availability of the protein and more affordability of the protein.

Lindiwe Sejiro, your children are threatening to sell the farm, and let's hope they don't sell you.

Sejiro They won't.

Lindiwe Now that you remain on the farm, what do you see – 2030, 2050? What do you see on the horizon?

Sejiro I just want to encourage everybody to emulate what WISH is doing and IITA is doing to encourage the younger generation and globally and see how strengthening and trade ties across the globe. The U.S.A should be able to come to Nigeria without stress and our own catfish too should be able to come to the U.S. without stress, and because that is going to drive markets. And the markets in the end of every agriculture value chain is the most important, because it's going to drive production down the line. If you have all of the technology and you don't have food markets, you'd be out of business, so we need to strengthen that and wrap it all. We need to be intentional, not deliberate about what we've been, because if everything fails, the food business is all gonna fail. The most important security in the world should be food security. So once food security is taken care of, it's gonna take care of every other insecurities. And we should deliberately and collectively raise an army that will fight hunger, not armies that will fight humans.

Lindiwe Excellent. So from Nigeria, the message is Nigeria is open for business. It's ready to feed the U.S. and the world.

Sejiro And the world.

Lindiwe What you need are the good trade relations and the gates to open.

Sejiro That's right.

Lindiwe But most important we need an army, not an army with weapons that kill but with weapons that are technology-driven to feed more stomachs so that everybody has peace, because as you say – the most important security, quote, is food. Let's rally around that.

I've taken you from the United States was to enjoy your soy. We have seen that Colombia is contributing to the food on your plate. They are a partner in this business. We have seen how Nigeria is also part of the dish you are enjoying now. There's no time for questions from you. I'll give my panelists just 30 seconds each. What are we doing wrong that you would like to see addressed? If you had a billboard for this panel, what would you, in three, no more than three words, what would you put there. Think about it.

Alejandro I believe we need to create more connections.

Lindiwe More connections.

Alejandro More connections, and we need to continue building on trade where we can have relationships that are long term, mutually beneficial and where all of us can continue to grow as a community.

Lindiwe So colleagues, SDG 17 – it's no surprise it's the last one: partnerships. And Alejandro says, "Let's have more connections. Let's build the partnerships." This is what you have done for the world, and this is testimony of your connections with Colombia and Nigeria. Who wants to go next? The clock is ticking.

Sejro All right, I want to close this with a shot chorus for us from Michael Jackson's song.

Lindiwe Oh, my gosh, here's the stage. Michael Jackson is coming back.

Sejro So I think everybody knows this song, so we just take it forth – "Heal the world, make it a better place for you and for me and the entire human race. There are people dying. If you care enough for the living, make a better place, a better place for you and for me." Thank you, thank you very much.

Lindiwe This was not planned, and I don't like surprising my panel. Tim looked at me and say, "You didn't tell us this." So, Tim, your son is looking at you. If you want to pray again for him, over to you for the billboard. He's watching you, Dad, don't let him down.

Tim I think in the U.S. is the farmers right now it's sort of a rough financial time, and if you're not active in an organization like USB or one of the state soybean organizations or corn or any of them, you don't have the perspective of what I've had the opportunity going to different countries and visiting farmers and importers to know that what we're doing on our farm isn't just feeding our families and making a living, it's feeding the world and helping people help themselves. And I think that's very important, and I wish there was a better understanding of that here in the U.S.

Lindiwe Excellent. What a prayer. Let's do the right thing. Let's fight the right war, and let's use technology and science to spread the word to all partnerships, that we can feed this world, and we have the technologies. What we now need is scale and the right policy environment to achieve that scale.

I want to just end by thanking Mashal for helping us go back to our roots. I know she wouldn't have done it without the support of Ambassador Branstad, but in a special way, I also want to thank Ambassador Ken who is my mentor. Ambassador Ken Quinn, thank you so much for inspiring me personally over the years. It's been great to bring my grandmother to this room.

Thank you, please give a round of applause for the honor. Thank you.