BROOKINGS

The Brookings Institution Africa Growth Initiative Foresight Africa Podcast

FORESIGHT AFRICA PODCAST

"Investment in science and technology is key to an Africa economic boom" March 2, 2022

Introduction:

Aloysius Uche Ordu Director, Africa Growth Initiative Senior Fellow, Global Economy and Development The Brookings Institution

Host:

Landry Signé Senior Fellow, Africa Growth Initiative, Global Economy and Development The Brookings Institution Professor and Managing Director, Thunderbird School of Global Management, Arizona State University Distinguished Fellow, Stanford University

Guest:

Ameenah Gurib-Fakim Former President, Republic of Mauritius Distinguished Advisor, Global Network for Africa's Prosperity

Episode Summary:

Her Excellency Ameenah Gurib-Fakim, former president of Mauritius, shares her journey from science to presidency while highlighting challenges she faced as a woman in STEM with AGI Senior Fellow Landry Signé. She also discusses her *Foresight Africa 2022* piece and argues for increase investment in science and technology for Africa's economic growth.

ORDU: From the promise of new technologies to the large number of innovative youths poised to shape the continent's future, Africa is full of dynamism and optimism worth celebrating.

Hi, I'm Aloysius Uche Ordu, director of the Africa Growth Initiative at Brookings and host of Foresight Africa. Since 2011, the Africa Growth Initiative has published a high profile report on the key events and trends to watch in Africa over the coming year. Entitled "Foresight Africa," the publication calls attention to key policy actions to address. With this podcast, we intend to engage the authors of our report, policymakers, scholars, businessmen and women, and the youths of the continent.

For this episode, I'm delighted to hand over the mic to my colleague Professor Landry Signé, senior fellow here at the Africa Growth Initiative at Brookings. Landry has published extensively on technology and the digital revolution. I'm pleased that he has agreed to host today's discussion. Thank you, Landry, and I'll let you introduce our guest for today.

SIGNÉ: Thank you very much, Aloysius. It is always a pleasure to collaborate on such important initiative.

Today, we are joined by Her Excellency Amina Gurib-Fakim, former president of Mauritius and distinguished adviser for the Global Network for Africa's Prosperity. Her Excellency served as the first female president of Mauritius. Before her presidency, Gurib-Fakim taught organic chemistry at the University of Mauritius, where she also served as dean of the Faculty of Science and pro-vice chancellor. She also has opened up a research center devoted to study the medical and nutritious effect of plant life in Mauritius. Her Excellency Gurib-Fakim has being recognized worldwide for the amazing efforts in science, including with the L'Oreal UNESCO Prize for Women in Science and the African Union Commission Award for Women in Science.

She's a long-term friend of mine, and I had the pleasure of co-authoring numerous articles with her, including for this year's Foresight report. Today, we will be discussing how investment in technology can lead to economic growth in Africa.

Your Excellency, it's always a pleasure to engage with you, and we are incredibly grateful for hosting you today.

GURIB-FAKIM: Thank you so much, Landry, and thank you again for Brookings to associate me with this very important conversation, because we can't stop talking about the importance of mainstreaming science into all the policies across the continent. So, again, thank you for having me, it's a pleasure.

SIGNÉ: It's always a pleasure to have you, Excellency. Science seems to have been a central part of your professional life from a young age. What inspired you to shift away from your role as a professor of organic chemistry into politics and has your science background impacted the way you approach policy when you were in office?

GURIB-FAKIM: Thank you very much for this first question, Landry. I left my post of academic because the research work I was doing—which was on herbal knowledge, traditional knowledge, isolation of innovative molecules from plants—I saw in that a huge

business potential. And this is when I left the comfort zone of academia and thought of going into business because I translated that into an enterprise.

Because even since then, since my academic days, I remain convinced that the way forward for Africa would be through creating more and more entrepreneurs as this continent will remain the youngest continent for a long time.

So I went into business and then this, of course, translated my appetite for risk taking because I took a big risk because the ecosystem for such an enterprise did not exist and still doesn't exist in many countries in Africa. And yet we know how important that is to stimulate growth and also to stimulate the appetite for taking up science, which of course will underpin development of the continent.

Then the next idea came up, the next risk-taking came up, when my name was put forward for the presidency. Again, I said, Why not? Because at the end of the day, if I can serve my country at the highest level, then I will do it. So my name was flagged and the election came about, and the party that had put my name forward got elected. So I became the 6th president and the first female president in my country.

Now, to answer to the last part of your question, did my science background influence the way I was handling the presidency at the time? Yes, it did, because I was being invited to precisely shape the narrative on the mainstreaming and also the uptake of science by policymakers to understand why it is important to invest in that space and why science has to be *the* conversation to be had among policymakers. So my science background, I think, remains unique among many heads of states. There are very few around. There was one, of course, she just recently stepped back, and that's Angela Merkel, she was also a chemist.

So, I think we saw why having this come as this science background helped, especially over the past two years. During the COVID, we saw that those who had the science background, the science training, the approach to tackling, to handling the pandemic was different. So we need to have this conversation. We need to ensure that the dialog on science is had across the continent because we know that at the end of the day, it will impact not just the policy, it will also impact, of course, job creation among the young people of what for a long while, because Africa will remain the youngest continent.

SIGNÉ: You made extremely important points, Excellency, and will you mind elaborating further on the transition from science to innovation to entrepreneurship?

GURIB-FAKIM: Translating research in the academic world is now becoming habit, because we see in many countries that the leaders are conscious of the fact that the academics who have good ideas, they need to be able to they need to be encouraged for them to translate that into an enterprise, into applications that will help the country. And if we had done this, if we had had this approach 10 years ago, we would have seen, for example, ready-made African solutions to African problems, be it in agriculture, be it in health. So this is why I keep saying that this ecosystem needs to be developed on the continent, an ecosystem where the academic will feel comfortable to have this safety net—exactly what the U.S. has done and exactly as many advanced countries have done—is that they have created the ecosystem, they have invested in the ecosystem, and they have also made the policy around it very, very supple so that those who actually want to go in it, we can help them become that successful

entrepreneur. And if you look at the success story of the United States, we have four big enterprises, which all started in their garages, in the home.

So this is the kind of attitude that we need to develop. And this is kind of conversation I'm having across the continent in many fora so as to explain to them why it matters to invest in that space and also to invest in the youth of Africa. Because for them to feel comfortable to go into that space, we need to invest in them, we need to make sure that the role models are there, and we also need to see to it that the women are also empowered, because we cannot leave behind 52 percent of our workforce. And this is what women represent in terms of everywhere across the world. This is how it is. You need to empower the 52 percent.

SIGNÉ: You have often argued, as we do together in our Foresight Africa viewpoint, that African countries must create an enabling environment through pro-innovation, pro-science, and pro-technology environment to stimulate and accelerate economic growth. Could you be more specific?

GURIB-FAKIM: Let's just take that one area, Landry, for Africa, why we have very low lying fruits there in the field of agriculture. Now, we know that Africa has got tremendous advantage. Africa is a continent which is home to about 60 percent of the world's arable land, and unique biodiversity. And we know that African agriculture, it weighs about one trillion dollars in terms of business. And this is of course the figures coming from the African Development Bank.

Now, unfortunately, the stereotype is such that people who do agriculture in Africa, they are those people, especially women, operating in the heat with dry land, with the hoe and the baby in her back. I mean, this is not at what agriculture really is about. And we know that African agriculture, if actually armed with the appropriate tool of technology, it can improve the productivity. It can, of course, develop into a sector that will resist climate change and also a sector that will provide jobs. And we saw glaringly over the past two years how food security became an issue when people were told that they have to stay home. And people were saying, even quite sadly, that we will die of hunger before we actually die of COVID.

So to come back to agriculture, we see a sector which is booming, which of course needs to be developed to address food security, and of course to address transformation of agricultural produce because we cannot keep on exporting the raw material. And if we ensure that this is a sector that we can invest in, we can create the appropriative system, we can ensure the uptake of technology by the students coming out of universities. And now we have the free trade agreement, which provides huge internal market. Only one sector, agriculture, can become the game changer.

Now, if you look at the other sector, which is, of course, health, we saw recently all the discussion that we've had in terms of intellectual property, in terms of why Africa has become so dependent on imported vaccines. If we had invested in that space, if we had invested in science, technology, innovative practices, we would not be seeing Africa in that particular state as we have seen for the past two years. So again, what are the innovative solution that we can bring? And we saw that South Africa, they were the one that identified the omicron. And of course, rightly or wrongly, they got the backlash from it because they actually bore the consequences for having shown to the world that this variant existed, unfortunately. But it shows the potential for development.

And I think, again, through African homegrown technologies, through African innovative practices, through Africa traditional knowledge, there's plenty, I don't see why Africa cannot become a powerhouse when it comes to pharmaceutical and medicine development, as well as vaccines and everything else.

And you know, when this happens, the people of Africa stand to gain, but also the potential for exporting what Africa can do. So, just taking two sectors, but there's many more. There's textile—there's a rich African legacy in terms of design, which is now being discovered. How much can that progress to become key sectors of the African economy, provide jobs, provide innovative practices? I mean, this will happen when we take the investment in the ecosystem, the investment in our youth, the investment into our education, when we take that seriously. And I think slowly but surely, African leaders are waking up to this reality.

SIGNÉ: Which specific policies, in addition of the pro-investment one, could government adopt to unlock that science innovation potential?

GURIB-FAKIM: So, when it comes to unlocking the potential for Africa, we have to start investing in our people. We have to invest in our universities. We have to invest in productive sectors. And we also have to relook at the way our kids are taught science, technology, and innovation. And this is again areas where there's plenty of weakness. And in fact, if you look at the average of investments, government investment in our universities in science and technology we find that it is still below the one percent which African Union prescribes. So this is an area that we have to address as a matter of urgency.

And the next thing that we also need to look at is how do we unlock the potential of African traditions, African legacy, in terms of the cultural legacy, which is so immense? How do we encourage this? I mean, these are all the areas that we have to start seriously looking because we can develop homegrown solutions, but we need to have this conversation taken very seriously.

But more importantly, we need to ensure that our children take the sciences from a very young age. And this is still not the case because the training of our students still is in through the arts and the social sciences, and we're still training our youth to become administrators. And yet we have to make sure that these young people are trained to become scientists, to become engineers, to become doctors. But for them to stay behind as well, this is where Africa need to create the institutions that will retain the talents that she's producing continentally.

SIGNÉ: Investing in new human capital is critical, I fully agree with you, Excellency. What successful technology policies that African and really developing countries in general have been able to leverage, to spur that growth, that economic performance?

GURIB-FAKIM: Again I'll posit that within African, well, history, post-colonial history, which is about 60-odd years. I'm not going to be an apologist here for the delay in embracing new technologies because institution-building takes a long time. Now, if I just open a parenthesis here and look at Asia—why I look at Asia, because Asia has benefited from the Green Revolution and Asia has been there when the world was opening up, when they didn't have to invest a lot, for example, in technology, in I.T. and in that sector. We say how telephony had made a very big difference in countries like India, for example. They were there at the cusp. And because the policy had been there since 1958 with a Nehru policy for

science and technology, the country moved in leaps and bounds. And we know that today over 40 percent of Silicon Valley is still populated with Indian nationals.

But if we draw this parallel here in Africa, we are already seeing in the digital space that things are happening. We see in northern Africa, for example, a country like Morocco, they are investing, for example, in solar energy. We see, for example, a country like Ghana, which is doing well, i is now home to the headquarters of Twitter. It is home also to the headquarters of the African Free Trade secretariat.

But what we need to have now that the free trade agreement has been signed and ratified, we need to do to unleash the potential for the internal market that Africa represents. And this will ensure that Africans can trade amongst themselves. And I just heard this discussion today with the EU-Africa conversation that is a conference that is going on right now in Brussels, is that geographical proximity is not the only ingredient for promoting free trade. We need to ensure that quality is adhered to. We need to ensure that all the payment systems are there. So all these conditions are there for this to happen.

But I think there is an awakening on the continent. There is an awakening that this must be had, this conversation must be had. And efforts are now going into addressing the payment scheme—and also, we mustn't forget that mobile money had started in East Africa. So there are good precedents on the continent. But now we need to bring that together, all these ingredients, to make sure that the pie comes out nicely.

SIGNÉ: You anticipated a key point that I wanted to make about the African Continental Free Trade Area, AfCFTA, which was launched in 2018 with the signing first and then in 2019 the ratification, and the official coming into force as of January 1st of 2021. As a matter of fact, it was supposed to be launch in 2020, but COVID-19 has slightly delayed it. So how can the African Continental Free Trade Area contribute to unlock science, technology, and innovation in Africa?

GURIB-FAKIM: I think the fact that countries have signed and ratified shows the willingness of African countries to work together. And I think that's the future because of, well the success of the AfCFTA is to move from the less than 18 to 20 percent trade, which stands right now for Africa. And if you look at Europe, it's over 60 percent. So the integration should be geared towards doubling the business and of course the trade across the continent as we move ahead.

And I think the way forward for this is to favor manufacturing. And if we look at 2030, already when China will start disinvesting in many key jobs, many key sectors, the jobs will come to Africa. So we need to show the preparedness to actually absorb that kind of level of manufacturing.

And who says manufacturing means there is, of course, room for innovation. There is room for improvement. And of course, through this, I think, we will not only create jobs in the immediate to near future—of course in the long-term as well—but also leave that room for promoting innovation. And this is what we need, because if you start getting innovative practices in agriculture, in all walks of our economies, I think that's the way that we will move ahead. And promoting innovation and of course engaging academia, engaging the public sector, engaging the private sector to have this triple helix conversation, as I say all the time, it is only then that we will see the continent move ahead.

And also, we mustn't forget the talent of the diaspora, and I'm sure talented people like yourself, Landry, who is now based in Washington, you'll be very happy to collaborate with Cameroon or any other country that will call for your services. Now, we're not asking you to move, we're not talking about brain gain when we talk about brain circulation, and that's what we need for the future of our continent.

SIGNÉ: Would you mind expanding on the questions of brain drain and brain gain, Excellency?

GURIB-FAKIM: We have spoken about brain drain for too long because Africa has lost its best talent. Look at some of the hospitals in Chicago or in some places you'll see many of the best African doctors there. But Africa cannot envisage brain gain as such, because as I said earlier on, our institutions are not ready, the ecosystem is not ready to attract these talented Africans who have left for, of course, greener pastures elsewhere in the U.S. and elsewhere.

But what I say is that we need to create a forum, we need to create an environment that will promote the brain circulation. I said if people like yourself, for example, come and spend a few weeks or a couple of months in the year in a country that needs your advice, the ideas that you will generate, that you can share with the young people, I mean, this is going to be tremendous in terms of fostering new collaboration, in terms of fostering new ideas. And of course, the advice you've be given to the government in terms of promoting new technology, new policies, this is what I mean by brain circulation.

We are at the cusp of this because many of a talented diaspora are Africans, they are willing to do that. So we need to create that environment for them to come and share, because at the end of the day, it is not only money that matters—because you can make all the money in the world now, with NFTs, with crypto—but I think we need to create the environment, the ecosystem, that there is this exchange because COVID has shown us that virtually we can do many things, but we can't replace the human touch. So we need to have these Africans coming to Africa, we need to make them meet the young people, and we need to have these ideas germinate. And, of course, make it come to fruition. I'm convinced that this can happen.

SIGNÉ: Inspirational, Excellency. So related to the African Continental Free Trade Area, in what ways can the private sector add in improving technology and increasing its uptake throughout Africa?

GURIB-FAKIM: Unfortunately, the landscape of private sector in the U.S. or in Asia, it is not exactly the same as we see in Africa, unfortunately. But what we must do, we must engage the policymakers, we must engage the conversation to be had between the public and the private sector. We need to have a system like in Korea, for example, where if the private sector invests three percent into research and development, the government can match it so the pie will get bigger. And when the pie will get bigger, they will go into productive sectors that both sectors will agree upon.

We need the government to believe in the private sector. We need the government to keep on speaking to the private sector so that both of them together, they can collaborate, of course, we bring in the civil service, we bring in, of course, academia. That creates a very powerful

forum to make the country move forward because we need to have all these sectors speaking to each other.

SIGNÉ: Given the growing youth population in sub-Saharan Africa, how can investment in STEM add in job creation for the youth?

GURIB-FAKIM: Investment in STEM for the young people in Africa, it will depend on the quality of the STEM that we are actually going to bring to them. Why I say this because for a long, long time, the model of science teaching and the model of the science education has been modeled on an approach which has not really been accepted by the local people because it's simply anachronistic. It wasn't the appropriate one.

What am I saying is this: if you are going to teach, for example, a child growing up in a faraway village in Congo, and you will tell a child that "A" is for apple, it will take some time. But if you say "S" is for sorghum, for example, that child will be able to connect more with the reality of the country or the space where he or she is growing. So what I'm trying to say is that we really need a rethink of the quality of the education we're going to give to that child.

And also bring home the reality of the country. There are so many good practices which are happening in Africa and which we miss out. Just take one example: We look at many parts of the Sahel region where there's a lot of drought. And yet what do we do when these countries go, for example, I'll just say any multilateral organization to ask for loans? They are given a model for irrigation, for example, which may not be at all adapted to that part of the world. And yet there are traditional practices which exist and which has survived the years—we know the history of that place—and which work. So we need to bring the two together. We need to bring that knowledge. So this will be an excellent forum to take the child to understand what irrigation means, to understand what irrigation means for agriculture. And we need to bring in the tradition. We need to bring in the science. We need to bring an education together, and make that education fit for purpose for that child growing up in Africa. It can be done, but we really need to look at education system to make it fit for purpose.

SIGNÉ: The African Development Bank, in a report, noted that less than 25 percent of African higher education students are involved in STEM, that is science, technology, engineering, and mathematics. Those few often chose to emigrate to other continents, further diminishing talent in STEM industries in Africa. How can Africa incentivize these individuals to work within the Africa STEM industries?

GURIB-FAKIM: This again, comes down to our own history and said we haven't invested enough in the young children, and science is still not perceived to be an important area and because people can get better pay when they go in the financial sector, for example. And this is why we need to actually incentivize the teachers. There are very good models which have worked. If you look at a country like Pakistan, there was one minister who was also a professor and also a chemist, for that matter, he was very highly qualified minister. He revolutionized the country's teaching of science. He revolutionized the post of professor at university. When he was there, the professor of science, the professor at university, was earning more than a minister. I mean, this is what the message he was trying to say, that these people matter and we need to actually incentivize them. And he went to many institutions across the world, promoted the students so that these kids could go get a Ph.D. and come back. And when they came back, they had a job to go back to.

So this is what we need to create. We need to create the ecosystem, we need to strengthen our institution so that all the way from childhood, there is a role model of a professor, of a neighbor, who has made it all the way up there and is there earning a salary, being respected as much as a minister would be respected—even more because the minister's post, of course, is temporary. So create and make sure that the kid growing up in that village can dream and can dream and look up to the mentors, look up to the people who have made it.

And I think this is what we are missing in Africa, and this is what we need to invest, invest in our strong institutions so that these kids will not choose to go elsewhere but want to stay on the continent because they can make a difference. They can earn that respect, they will get that respect from their peers locally. And this is how we grow it, because at the end of the day, even institutions like the Brookings or Cambridge or Oxford, or the MITs of this world, they have taken a long time to emerge. They have taken a long time to emerge because these institutions, they have invested in guardians and the guardians have been there to protect the reputation of that institution. And that's what we need. We need the perennity. We need strength in our institution to make sure that all these kids actually go there. And of course, we shouldn't forget the women because unfortunately, the stereotypes are still there that women cannot do science. I've been a victim of this myself when I was told that science is not for you, science is for boys. So we need to encourage girls as well to actually choose a career in the sciences.

SIGNÉ: Excellency, you always anticipate the ideas that I want to bring to the conversation. So in particular, this year Foresight Africa also had the viewpoint on strategy for increasing African woman and girls' participation in STEM as they are severely underrepresented in STEM careers. How important is bringing is bridging this gap to maximizing the benefit in technology innovation?

GURIB-FAKIM: You know, Landry, I will start by answering this question with a stereotype. A bird cannot fly with one wing, a football match cannot be won if you leave 52 percent of the team on the bench. So we'll need increasingly to leverage the entire talent of our population—that includes the talent of men and women. Women bring in a different insight, women's intuition is different, women's way of managing, women's way of doing things is different. But there has been, of course, plenty of models of women whose potential have been unleashed because they actually grew up in an environment that promoted them. Of course, I go back to the last century, I go back to the famous Marie Curie. I go back to Wangari Maathai. These were women who have made it through sheer gumption.

Can you imagine operating out in 1900 in France, where women were not even allowed to take up an academic post, and Marie Curie earns two Nobel? Can you imagine Wangari Maathai—her job was removed from her because of the position she took in protecting her native forests in Kenya? And it was for that she got the Nobel Prize. So these women have sweated blood to get to where they have reached, but nonetheless they have showed that they had vision, they had talent, and they had all the abilities to do to be able to do that. So we need to showcase them. We need to celebrate them.

And this is when the engines of that country will fire—both engines if I may say so. They will fire on the talent and the intuition and the potential of these men and, of course, on these

women. If you look at a country like Rwanda, for example, they have valorized, I mean, the leadership has valorized women and we have seen the country making tremendous progress. We have seen also South Africa that has also privileged many women at top leadership positions, and many vice chancellors in Africa now they are women.

So I think we need to engage more and more with women and do away with our misogynistic approach, because this is what prevents many women from going and of course exploring the full potential, is when they are set back by stereotypes. And this is what we have to do away with. But at the end of the day, we also have to look at the structures that would promote more women to go into that field, to go into higher studies, to become talented scientists or whatever. Is when we look at our books, we look at our education system so that these women have role models to look up to, these women can say, yes, we can also do it.

SIGNÉ: Further to this question, Excellency, where there are any barriers for you in pursuing a career in STEM?

GURIB-FAKIM: Well, the barriers started when I was a young girl, and when I finished high school, I went to see the career guidance officer. I was a lot thinner, a lot smaller when I was young. He looked at me walking through the door and he says, Why have you come to see me? I said, you know, I've come to ask for your advice because I want to study chemistry. I'm passionate about chemistry. The first thing he said to me, well, chemistry should not be for you because that's for boys. And also, when you come back with a degree in the sciences, the chances of you getting a job is going to be nonexistent because you will be a young woman. So that was the advice I got.

And unfortunately, many young girls, their self-confidence gets destroyed because of this attitude, and this is the kind of attitude we have to do away with.

But having said this, the challenges don't stop there. I went into the sciences against all odds. I ended up with a degree, Ph.D., and came back to my home country to find that the infrastructure that I wanted to operate in to do research was simply not there. And then I had the temerity, or the audacity, to actually work in using weeds, herbal medicine. That wasn't perceived to be serious. How could somebody with a Ph.D. in organic chemistry come and work on weeds? So that's another stereotype. We tend to look down on our own tradition and our own cultures.

The final challenge came when they want a fresh face, a female, somebody who's a scientist to become the president. Then the negatives become positive.

So this is the challenge that women have to experience. These are the challenges women will experience throughout their life. But the way to overcome this is when people like yourself, Landry, who is now a proud father of a young girl, you keep telling that baby girl from a very young age that she's capable of doing anything. Mind you, if you keep on telling her that nothing can stop her from achieving her ambitions.

SIGNÉ: Wonderful. I love this. How did you overcome these challenges? Which strategies will you recommend for young girls listening?

GURIB-FAKIM: I will use an analogy that had been put forward by Sirleaf-Johnson when she says that you need to dream big, and the size of your dream must frighten you. And that's

what I did. I grew up in a very tiny village where there was nothing, but I had very big dreams. I had dreams that I would leave my country and achieve something big. I didn't know what it was. But dream big, then dare to take that first step, and then execute and do. So, that's what I did.

But of course, with the self-confidence that had been drummed into me by my parents, especially my cheerleader who was my father. And then, of course, I got lucky because I married somebody who was indifferent to what I was doing because he was happy doing his own things. So that helps as well, when you actually get a supportive partner further down the line. So this was, of course, the luck that was on my side. But nonetheless, keep dreaming big, keep doing, and keep going not on the trodden path. Create your own. Then you are you are there, you are on your way.

SIGNÉ: To make the most out of technology and innovation, African governments and entrepreneurs should move proactively, anticipate disruptive innovations and their implications, and build capacity and the conducive environment to unlock your potential, recognizing new niches for industries, and leverage uniquely African advantage, as you have beautifully highlighted, Excellency. They should also invest in youth, in women, and entrepreneurial population, and collaborate across stakeholders to achieve sustainable and inclusive growth. So, the future of Africa depends on the success in this endeavor. Excellency, do you have any final words for our audience?

GURIB-FAKIM: You've used a very important word: "disruption." How do you disrupt the status quo? Because innovation at the end of the day depend on disruption. And this disruption will come when our kids will learn with their hands, when they start thinking laterally. And this will come when we engage a different way of educating them. And this will come, again, through investment in quality education. And that's the route we need to take to be preparing our young kids for the future of tomorrow. Because mind you, the future that we want is the future that we have to invent.

SIGNÉ: On this beautiful note, thank you so much, Excellency, for honoring us with your presence and sharing your phenomenal and insightful thoughts with us.

GURIB-FAKIM: Thank you so much. Thank you for having me.

ORDU: I'm Aloysius Uche Ordu, this has been Foresight Africa. To learn more about what you heard today, find this episode online at Brookings dot edu slash Foresight Africa podcast. Each episode will be listed on its own web page, and there will be links to the content discussed in the episode. The Foresight Africa podcast is brought to you by the Brookings Podcast Network. Learn more at Brookings dot edu slash podcasts. Send your feedback and questions to podcasts at Brookings dot edu.

My thanks to the production team, including Fred Dews, producer; Tamara White and Christina Golubski, associate producers; Gastón Reboredo, audio engineer, and Skye Sutton, audio intern. The show's art was designed by Shavanthi Mendis based on a concept by the creative firm Blossom. Additional support for this podcast comes from David Batcheck, Raman Preet Kaur, Ian McAllister, Chris McKenna, Soren Messner-Zidell, Chris Peters, Andrea Risotto, Esther Rosen, and Ashley Wood Schelling. Thank you very much.