

Transcript- In conversation with Tom Kariuki part 1

0:05

Tom has a distinguished research career in Biosciences, infectious diseases and immunology, and it's been matched by an equally distinguished career in shaping research policy and managing global partnerships. Since his appointment as the Science for Africa Foundation's Chief Executive Officer in 2022, Tom continues to help shape the agenda for science and research across the continent. Tom, can I ask you?

0:31

What are the trends in science research in Africa and if you like what's specific, what's different about Africa to the rest of the world? Yeah, I think there have been challenges and there have been opportunities and maybe I can start there. The challenge is I believe I have alluded to some of the challenges. Funding remains a major challenge.

1:01

Despite the fact that a lot of the schools and universities have been increasing the amount of people who are going through the graduate training processes in science and innovation, funding remains a major, major issue for many, many countries because economies are still developing so many priorities for government to try.

1:29

And decide what's going to go into building hospitals, what is going to go into education, how much you'll be left for funding. Discovery or transitional sciences becomes in many countries at the bottom of the pile, unfortunately, which is why for our organization, the Sand for Africa Foundation, we still very much dependent on global partners who are willing.

1:59

To put money into a pot of money that can be shared by the established leaders in Africa and the emerging leaders will be training. The other challenges I have is we still are not there when it comes to say we have a critical mass of skewed scientists and innovators.

2:27

Some areas doing much, much better than others. For example, if you if I'm looking at the investment that have gone into health research for example, very significant over the years, agriculture quite significant as well. But then if you go to how all of this is being transitioned so that they are truly, truly.

2:56

Addressing food insecurity or getting the best technologies in the nearest clinic clinics for health, I think that is still a major, major challenges. And then of course I think the other thing for challenge for me has been the connection between science and society, creating the awareness of how science can actually address.

3:26

Economic challenges. That connection has still not been made in many African countries. I suppose the people who can do this better than all of us are saying this is the economic planners. But for them to do this, we need a scientist to engage more and more with with those. I mean, if you want me to be a bit specific, I have spent a lot of my time talking to, say, for example, the Ministry of Health.

3:55

Or the Ministry for Science, Technology and Innovation. But then I we realized that we need to have a conversation with the economic planners and the people who sit in budget making offices. Because those are the people who actually have the clout to make decisions as to where the money is going to be shared. But the opportunities, despite all of that, I think in the wake of COVID, for example, there is more awareness.

4:26

With government to strengthen the infrastructure of research and development in Africa, One example, for example, is many of them now has some level of how to do surveillance for diseases that may imagine future and how they can be more prepared for it.

4:55

You shall, whether it is small outbreaks, whether it is an epidemic or whether it is a big pandemic, I think there is more and more discussions and a little bit more investment going into that area. So that in, in my view has been an opportunity. And then related to that is the fact that you need to expand higher education, you need to expand the number of research institutions.

5:22

You need to expand the skewed technical people who must then address that and that has been an opportunity for them to make more and more investment in education and higher training. And then the other area is because we live in these very huge global connections, we have not been done in the past very nicely in terms of intra African.

5:49

Shared lessons or connections between African countries, Well, it is a huge continent Martin, but we try to do that and part of our work, for example the Central Africa Foundation is to focus on programs that are creating intra African collaborations and partnerships. So yes, and also maintaining a lot of global interests.

6:19

And investment to support African institutions remain another area of opportunities for us that we continue to build. Can I just sort of look, look if you like ahead 2020, 2063 I think is a target for the African Union science technology innovation strategy for Africa. I'd love to get a sense from you looking back from that point.

6:45

I'm sure neither of us will be having this conversation then. But looking back from that point, what would you like to have seen happen? What's your kind of most fervent ambition for science research? Not a very good question because we work and we define the work we do to say.

7:12

We are addressing strategies that have been defined by the Member States who congregate every year and they will be looking at are we, how are we doing in terms of Agenda 2063? They are of course medium term frameworks that they then approve to the Science, Technology, Innovation One and I was actually very much involved in the discussions early on and now.

7:40

The next one moving forward from 2024, I think there are successes and there are also some many other things that needs to be addressed in terms of success. And I think I have also mentioned around the catalyst of tensing and upgrading research capacities and infrastructure. I would say that has been a success in the sense of just.

8:10

Asking many universities, for example, which I also do personally, is there a balance between teaching and research. The connection is very important because when you are teaching you also must be up to date with what it is that you are impacting on the students more infrastructure because however brilliant ideas may come from.

8:37

If you don't have the infrastructure and the conducive environments to allow these young people come with great ideas to thrive, that is not going to happen. So there's been, I think, more appreciation of why governments should make more investments in that. So that emphasis on technical infrastructure, people, training and all of that, Then there is, of course the appreciation of.

9:06

The rule of government, I think at the level of the African Union, at the level of the strategies we have put out, there have been quite a bit of emphasis on the key rule of government in the sense that there was declarations that most countries to try and get to this 1% of GDP dedicated to supporting research.

9:34

I have to say though that I'm not aware of any one of the governments that have reached that 1%. I know where I'm sitting in Kenya, the documents that I've seen did pronounce 2%, but I don't think we are even anywhere near that. We think could be around 0.7%. I think South Africa has been leading in terms of the investment in making this, but again.

10:03

They have been fluctuating that over the years and then the other thing that that I think I've seen in success has been bringing more non governmental actors into the conversation. You know our organization for example we are not a government entity but we are having those conversations with the African you know development agency, Nepal we have.

10:32

A lot of conversations with Africa CDC we have lots of conversations with the African Association of Universities who come together as a group. That's important because all these non state actors have a major player and a major play into all of this. They are key players that are actually should be embraced more and so when I look forward as to what's going to happen next.

11:00

The role of private sector industry, non state actors will be a major, major thing for all of us to embrace that. So what I have had is and I need to look into what all this means for us is the fact that there are discussions about the creating you know national development plans that address the Agenda 2063, the rule of.

11:29

Regional economic councils or regional economic communities. There is one in West Africa, one in

East Africa, one in Southern Africa, one in Central. I think we have five of them. All of them have the role to play in uplifting the role of science and innovation in society and therefore we also would want to see more tracking of the outcomes and the impact.

11:57

That all of this reaches, so that will be my summary of the successes and what more that should come out for the next phase of the new strategy. Do you mind if I do actually ask you one more question because?

12:15

You said something though, which really intrigued me about your personal motivation because you seem so optimistic and I just wondered where that came from. What? What is it that excites you about the role that you're in at the moment? And about the Silence for Africa Foundation? I think that's, as always you go through these the pathways of professionalism, so you.

12:44

I don't believe that I started as a scientist because I was driven by teachers who were literally trying to drive me into science. I think what happens sometimes is you kind of stop into something. So I stopped bonding to science from very early on in my in my student areas. And so I ended up at the university here in Nairobi and then.

13:14

Went into a good institution where I was introduced to immunology and then I ended up doing a PhD at the University of York. It's been that kind of journey. Now what's important about all of this is that you then get to establish yourself and building your own career and then the challenges then start to become very obvious. So you have great ideas as an immunologist.

13:42

You know what you need to do to address at this A disease area. Using immunology and all the training that you have. You want to recruit people who can come as students, as masters and Phd's or postdocs in your laboratory. There's only one problem, one big problem. Where are we going to get the funding from?

14:11

Where is the money going to come from? So I think in my career I was running around like every scientist, writing proposals, engaging with government offices, all of that. And I think I was very successful in fundraising for my team, for my independent group of immunologists and training many of them through that. However, it got to the point where I felt I have learned.

14:40

Enough about the challenges that comes with you being a bench scientist and maybe it is time for me now to move into the other, you know, one, you know, from one shoe to the other shoes. So wearing the shoes of being a funder, because I understand what it takes for funders, what's the priority?

15:08

Listen, so I think I made that shift, driven by my own career, the challenges I saw, and then working with the two other gentlemen and then thinking together about how can we bring more funding to these very brilliant ideas. Where do we start? Let's create a platform. Let's now move.

15:36

Even further and create an organization itself. And this is exactly how I've learned where I am. Because I want to support in my mindset, I do exactly what the challenges are throughout the continents and anybody who comes and tells me.

15:56

I am an immunologist. Or I am an agricultural specialist. Or I am a primate scientist or I am this or that. I know the challenges that all of them have to be subjected to. Tom, Professor Karaoke, thank you so much for joining us in this conversation and giving us such fascinating insights not just into the Science for Africa Foundation, but into open research across Africa, too. It's been a great pleasure for me. Thank you very much for joining us. Thank you, Martin. It's been my pleasure.