

Transcript-In conversation with Tom Kariuki part 2

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.

0:29

Can I just ask you about open research more specifically and perhaps some of the kind of principles, if you like, that underpin open research from data sharing and transparency, open peer review and so to what extent do you see these principles being adopted and even embedded in in, in across Africa? Yeah, that's a very good conversation that we have been part of that conversation.

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And one of the reasons, for example, where we have been working with F1000 is because we wanted to have an open publishing house and our platform that can actually then support open science and open research on open publishing. It's about accessibility, it is about whatever data is generated.

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How quickly can it be driven into evidence? How can it be transitioned all the way to informing decision making? One of the challenges we have had with the policymakers, and I don't know whether they specific for Africa or whether it is a global challenge, is it is always a difficult conversation with policymakers unless unless it is presented in a.

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Very different way as opposed to how scientists sometimes put together their articles for purposes of just getting recognition or getting promoted within their own institutions. So what we would want is to make sure that as much information using the open accessibility, open availability, moving away from having all of this data.

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Behind wars where it cannot be accessible, we have we are very big pre shell of that approach. What we do is when we then put out awards for a grant that we are providing, we make that very clear to the grantees.

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That the expectation is that you will share your data, you will publish as much as possible to open research that you have achieved, and that this data could be available eventually as packaged as evidence that you'll be really informing division making. I know for example, our marine Corak could address more about the pathways of how we get even quicker.

3:22

To build open science in Africa and globally. I know there are conversations even globally where there have been all kinds of discussions about how quickly it is available, Why does open research matter so much The development of science in Africa, I'm particularly impact that science can have in Africa itself. I think for me it is.

3:52

Going back to something I say, the connection between science and society is very important. And unfortunately, in many countries scientists are still viewed as people who work in their ivory towers and they don't connect with the rest of society. And one way is to be sure that.

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In the context of something like COVID, how do you deal with conspiracy theories all over the place? There's a reason why we still did not get beyond maybe 50% of vaccination in Africa. Part of that was a lot of misinformation, and there are people who are more dependent on social platforms to get their information.

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Rather than being dependent on well researched data and evidence, and unfortunately this is not confined to just the Republic goes all the way to the leadership unfortunately. And if the leaders themselves are making decisions driven by conspiracies, theories, then we are in trouble and this is.

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Part of the example of where I find why it is so important to have open research and its accessibility available to the policymakers as much as possible. Of course, I have challenged many, many countries who are who are beginning to appreciate this in the context of COVID.

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Although many policymakers cannot still pronounce what messenger RIMA is as a vaccine, but the challenge to them is do you have an office where you can establish it could be an independent office which then receives colleagues and provide you as policymakers with something that actually then informs your decision making.

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Now we are quite a way from that matching in terms of having those kind of offices established. But those offices could be the key drivers of open research and open science in my view to create awareness and the connection between society and science. Just picking up on that that that issue of society and specifically the challenges that Africa faces and I'm just.

6:43

Wondering if you could give me an example of one or two challenges that are very pressing at the moment where you where you think that open research and science can really help to unlock those runs, work, work, what do you think it can make the biggest difference if you like. I think that let me say there are three areas that are really, really big challenges currently for Africa.

7:12

And we're trying to work through this as thematic areas because addressing them is urgent for all of us. So health remains a major issue for Africa, if you look at all the data for infectious diseases.

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25% of the burden of infectious diseases is still in Africa, and you can name all of them. Malaria remains a major, major problem. You know, problem for Africa when, when you're looking at the numbers that are generated, for example, by the World Health Organization. Still 400,000 people you know die from malaria despite century or so of.

8:07

Focusing on this, there are huge, huge numbers of people who are infected or getting infected with HIV. Despite the advances that have been made by the treatment available, that has been great in terms of extending response. However, there is still no vaccine for HIV that we can see with them.

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Confidence that we are near anywhere that the same with TB. An age-old problem that keeps the carrying across the continent and then you can add those two whole list of neglected tropical diseases as defined by the World Health Organization there. I think they I I lost track of the number there were 17 there could be 20 this are.

9:05

Some of these diseases, as old as the pyramids, when you look at, you know, the mummies, people who actually try to look at oh what cued this one or this other one and they are they are that old. Then of course we have a silent pandemic, let me call it an epidemic, other pandemic, but there is, you know, very silent epidemic of non communicable diseases, cancer.

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Cardiovascular diseases are here now, neuroscience challenges of strokes and everything else related to that. One of the challenges we have there is that again, government has been very slow to create areas like how do we quickly screen people? How do you get awareness of the connection between?

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These diseases with lifestyle or with diet and my frustration for example the lack of awareness that actually if you have big cities that I imagine across the continent that becoming more and more polluted, that is trouble, particularly with regards to how pollution is linked to non communicable diseases now. And of course you could say the same thing about the connection between diabetes and and diet all of that.

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That's one area. The other area is of course the climate emergency we are in. I mean, you just have to look at the eastern the Horn of Africa. More than 43,000 people have died in Somalia, 5 or 6 consecutive failure of rain.

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I don't think in my own lifetime I have seen a scenario where you have people dying, you have all their life stopped dying and you have white wildlife dying. I mean, if you see a zebra dead or giraffes are dying, then really I don't think I we have seen that. You know, these are supposed to be some of the speeches that are very resilient, but.

11:25

I think all of that has been lost by biodiversity, broadly speaking. That's an area which is an emergency, I have to say There the governments have a huge appreciation of how this climate emergency, but of course they need to think more about the mitigations, the adaptation and the reliance to the communities. And then the third area is, of course, food insecurity.

11:52

We still very much countries that are dependent on the seasonal rains, not in enough investment or a

lack of sufficient funding to invest in, you know, huge irrigation farming and yet economies are being driven by agriculture, you know, these millions of people, 10s of millions of people who are now going through.

12:17

Complete lack of food or more nutrition with children and not enough support even globally, to support this. So you know, in defining our own strategy for the next five years. Those are the three thematic areas, health, climate and food. These are three vast complex problems. What role?

12:42

Do you think that partners should play in this and specifically publishing partners like F-1000? I think there are many organizations and institutions and including scientists, who no longer see impact factors as the way research outputs should be reviewed. But I have been accepted and is available somewhere.

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Or just a conversation that actually addresses the agency of the emergency that we are dealing with an institution themselves are being challenged to look at how they approach you know publishing in places like the like the the, the, the F-1000 platforms. The the other aspect is once you have.

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Gateways like the ones that F-1000 has created through this aura, you know platform itself that we we have discussed and they partnered with the F-1000 then institution themselves are more amenable very quick to then say we are very happy to have a gateway ourselves to put our own output there and then.

14:08

Because it brings all kind of scientific articles and any other outpost, not just even from such as from the such administrators, from the leadership, then I think they see these as a very positive development for themselves. So there are a number of organizations in Africa and the universities and institutes that I think have approached at 1000 for those gateways our role.

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Is to actually continue to create that awareness to say there is a better way now there are things that have been done over 100 years. Maybe it is time for us to look at how it works better without necessarily say that you're not saying that you know the old systems do not work, they work. I mean they is that is exactly where we all have been.

15:03

But I think it is to emphasize that there is complementarity between all these approaches, and publishing houses should be able to do all of this so that all of us can actually have the options, even as we engage with that with readers and scientific scientists in Africa.

15:28

Thank you so much. I just had one last question if I if I could I'd I don't want to take up too much for your time but bringing the focus back to science for Africa Foundation, you've got a very long To Do List I'm sure right at the top of that. Where's the area you're most focused, What's the thing if you like, you would most like to achieve?

15:56

One of the lessons that we have learned in Africa is that it's very important to focus on building organizations that have a very good level of sustainability because the challenges that we have discussed, Martin, are not going to be solved in next two years or next five years or the next 10 years. Some of our global partners have been around for 100 years. We are very heavily supported, for example, by the Wellcome.

16:26

Trust in London. I know they have been allowed for all these years, so maybe our vision is also to start moving in that direction of making sure that we are not just here today and tomorrow. We go through an evolution process. But hopefully we can get to sustainability because the challenges we have in Africa will be with us for some time. Everything from health, from climate, from food.

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There is, this is going to be a long term vision that must be part of our thinking when we when I look where we invest mostly is in the area of health. So 70% of the funding that we put out goes to health research and for good reasons as I articulated to you because that's where we have a huge, huge burden of diseases and.

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This is a continent that is very much driven by young people. If you ask them what are their challenges, they will say they need only three things, decent education. They need good health and they need opportunities. And they will do the rest. They will.

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Through their livelihoods they will support their own families, they will create innovations that's those are the only things that they look for. So if we can, if I can end up in my term as the you know, the director and also being the person who been involved in the creation of the ISA platform and now translating into SFA Foundation.

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What is I think what warms my heart always is to engage with these young people who are now positioning themselves as imagine leaders in their own right. I mean that is very, very warming. And I also look at the quality and the quantity of science that is coming out of the networks that we have supported across the continent.

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There are at least 3000 scientists that are directly or indirectly involved with us across the continent and our footprint is everywhere. So I think that is very, very warming. And just to give you an example, in March we announced one of our largest flagship programs here in Nairobi.

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And it is called the Deltas Developing Excellence in Training and Sciences in Africa, a huge, huge event for us. And the most important thing is that there are now 14 networks that we are going to be working with them, managing and overseeing them for the next five years within those networks, the.

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Cruise cutting across all those disease areas that I mentioned to you and more importantly, the footprint is in 36 countries. And so that is very, very important for us to see how north-south, Eastern, Western, Central, how we are trying to uplift institutions and research institutes there.

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So that they can do a better job in future by building their own people and by building the infrastructure.