Okay, I think we're live now. So yeah, welcome everyone. And anyone who's tuned in and to anyone who is tuning in later to this panel discussion on anti racism in biology and conservation. My name is Ruben Fakoya-Brooks. I'll be the chair for today. And I'll first introduce myself. And then the panellists will each say a bit about themselves. And then we'll be begin the discussion. And we'll go through like a variety of topic areas. And so a bit about myself. I am the founder of the BAME ecological network in collaboration with the British ecological society. I'm also a researcher for the NHS at the moment. And looking at perinatal mental illness and the stigma surrounding perinatal mental illness. And my expertise is actually in ecology and evolution. And, and, yeah, I study at University of Nottingham, too. So who wants to speak next. So, Celina?

Celina Chien
Hi everyone. I'm Celina Chien. My preferred pronouns are she her. I'm a wildlife conservationist, a tropical ecologist and a photojournalist. And I use my work mostly in the efforts to protect biodiversity. And I'm Eurasian so European, Asian, that's how I identify, and I'm lucky enough to be from a really mixed background with different cultures and languages and ethnicities. But I'm currently based in London, doing a master's in tropical forest ecology at Imperial College London.

Craig? Craig?
Good evening, everyone. So my name is Dr. Craig Poku are my preferred pronouns are he and they, and I am currently a climate scientist based at the University of Leeds where my first stream of work is to understand fog forecasting over North of India. However, my second stream of work is to look at the intersection of race and climate and how we can engage marginalised groups more in the conversation of climate sciences. I'm really excited to be here, mostly because I feel that there are practices that I definitely do as a climate scientists that are still entangled in this idea of colonialism. And actually, I'm really excited to I guess, share this discussion with the other panellists.

Shay-Akil McLean
Hello, everyone. My name is Shay-Akil McLean. I am a PhD candidate at the University of Illinois at Urbana Champaign in the programme for ecology, evolution and conservation biology. Also, pronouns are he/they, almost forgot about that. So my, my work is predominantly surrounding looking at some of the larger biological and genetic consequences, and most importantly, evolutionary consequences of Euro-Western colonialism and racism. And looking at how it's shaped it's shaped human genetic variation for the last proximate 600 years. So my work is surrounding that, but also looking at scientific critique of race, how it fails, how it works. And also a lot of my work is connected to looking at decolonial ethics and decolonial science practices.

Kai Hoshijo
Yeah, that's right. Okay, everyone, my name is Kai Hoshijo. I'm from a place called Moanalua. It's located on the southeastern end of Oahu Island in Hawaii. I'm a current Master's candidate at U H Manoa and the
environmental management programme, so I study land and water resources in Hawaii. I'm also Hau'oli Mau Loa Foundation fellow, focusing on traditional place based knowledge in my community informing resource management and giving voice to community members. I'm looking at how we characterise resource abundance and changing times how we are to strive for what we call aina momona or fat land, sustenance and abundance in our communities. And I mostly do my work through interviewing and restoration in my community, and my pronouns are she her and I'm just very excited to be here.

Reuben Fakoya-Brooks
And I think the final person is it Milka?

Milka Chepkorir
Yeah, sure. Good evening, everybody. My name is Milka Chepkorir, the pronouns are she/her. And I am an indigenous young lady from the Senegewer community in Kenya. We live in Embobut forest and Kabolet forest. So we are forest indigenous community, historically hunter gatherers. And I am a master's student in gender and development Studies at the University of Nairobi. So that's where I am based currently. But yeah, with a specific focus on looking at gender in natural resource management, specifically on forest resources among indigenous communities, but such a field that hasn't been explored that much in Kenya. And my work has been on the role of ourselves as indigenous communities in conservation, and trying to fight the effects of climate change. And in this case, fighting against the colonial way of conservation, which is fortress conservation that has that was left by the British in the Kenyan system. And this is a system that doesn't recognise us being in our ancestral lands in the forests, and living there and conserving it like we've, we've done for ages, and now proposing the notion that for conservation to happen, then there's no one that should be in the forest. And these has led to a lot of human rights violations. There have been a lot of evictions, sometimes killings, sometimes rape, and yeah, just lots of human rights violation in the process of conservation in a way that is not respectful to the indigenous people's rights to their land and environment. Yeah, so for for five years now. That's what I've been working on. And, and I deliberately went to school to do an undergraduate in anthropology because I was so curious of understanding why really, other people want to try why we're treating us the way they're treating us. Is it because we are, we live in the forest, and they think we are backward? And yeah, I've come to really hear very discriminative phrases about indigenous people, even even when in school, you know, you tell somebody are indigenous? And they're like, No, are you indigenous? And I wonder, How do indigenous people look like? Or how should we really look like to be indigenous? So even being in the forest for ourselves has been such a challenge. And the discrimination just comes in every way anyway. And yeah, and that's what I've been working on, really to make sure that that is respected and recognised. And it doesn't matter how much people come to school to do that. Yeah, that's me.

Reuben Fakoya-Brooks
Wow, that's actually quite a good segue into our first discussion of this topic, which is access to the outdoors? And did any of you really face any barriers? Or did you have the support growing up when you were growing up and having access to nature?

Just would anyone like to answer that? Particularly?

Shay?

Shay-Akil McLean
Okay, um, my experiences suck. Um, I'm based in the US, but I grew up on the East Coast, specifically Buffalo, New York. Um, which if I'm not
mistaken, based on the last US Census data, I think it's the one that is like, fourth poorest in the US, six most racially segregated. So basically, what I grew up around in most cases was a basically a dilapidated neighbourhood. So in a lot of cases, the idea of even having quote unquote, really nature to engage with was kind of odd, like the only way that I was able to really do that, because I'm in Buffalo, New York, as a kid was like, going to large parks and stuff. So like, we have that kind of stuff locally. But in most cases, the majority of that stuff is, um, is like in the burbs, right, I'm in the suburbs. So like, I think the one there's like two one or two main parks that we have in a predominantly black neighbourhood on the east side. It's like Martin Luther King Park and I think Shoshon part where the really what that is, is like an athletic field stadium. So access to nature, and like a In the sense of like, when it is not in any way damaged, or removed by quote unquote, modern infrastructure, like I didn't have access to that a lot as a kid. And the only times that I did have access to it was really when lightning, it had to be like little filters and stuff that our school took us on. Like, you know, like the fall stuff, like apple picking and strawberry picking and stuff like that. And I think like, besides that, I'm going to like one of my family members farms this in, in New York state when I was a kid a couple of times, but because they have a large swath of land and a big farm. But besides that, it wasn't much not until I got to undergrad and started doing archaeological work that I was spending way more time, like in nature. So I'm, like, it's, it's one of those things that is definitely racially segregated in the US like to have access to particular types of parks or different. Different areas is is rare, especially on the east coast.

Reuben Fakoya-Brooks
Would you say, that was one of the biggest barriers that you face in terms of this in terms of segregation, and like the systemic effects of access to nature, rather than individual barriers.

Shay-Akil McLean
Ultimately, it all trickles down to barriers regarding mobility, so access via mobility, not to mention what resources are being put into maintaining particular kinds of parks, right. So of course, the less money the lower amounts of money going to inner city and predominantly racialized people's neighbourhoods and areas. And besides that, it also has a relationship to some relative extent to the education system. Because there's a problem when there aren't, as many opportunities are being created to actually facilitate making sure children have a relationship with nature and understand what is part of their local ecology, like what kind of animals should they be seeing what kind of plants they'd be seeing? Um, and so I think is really like it has to do a lot with mobility, and also education. Like access to both of those.

Reuben Fakoya-Brooks
Kai you, you're gonna say something? What were your experiences?

Kai Hoshijo
I think, growing up, I didn't have any direct barriers. In terms of access to the outdoors, I was blessed to really be able to be in the ocean, and the mountains as a child, whether it was hiking or going to the beach or surfing, playing in the tide pools. There's a really beautiful freedom of going up here where there is access to nature in our backyards. That being said, though, that freedom is not the same for all communities throughout Hawaii, there are places more central and industrial areas, especially areas near military bases. Military owns roughly, or leases roughly 206,000 acres of land here in Hawaii, I think that's 5% It's a lot, it's a lot. And so these areas that are blocked off, it almost feels like the communities, right outside are landlocked in a sense on an island. So for communities
like this, it's not the same, they didn't have that same freedom that I had growing up where I can walk down the street and go to the beach. And, and I do think in comparison to the generations before me, like my parents and grandparents and listening to their stories, the access to nature has definitely decreased. And that's due to, you know, increase development, but also increase private property, putting up fences, not allowing people access to nature. Whereas my parents have stories of just running out and playing in the gulches in the ditches. And so they had that freedom. And so that even makes me think about how do we characterise like access to the outdoors, because I might think, Oh, I had access, but my parents might look at me and think you don't have access. You don't have the same access we did. And so that will change over time. And so if we don't know those stories of our generations that have come before then characterising access to outdoors might not be well informed. I guess.

Reuben Fakoya-Brooks
Okay, so you didn't necessarily have bars in terms of access in like nature and outdoors. But did you have barriers in terms of like, accessing or continuing or considering, you know, environmental sciences, or just biology and conservation as a whole, in higher education?

Kai Hoshijo
Sure, I think in terms of access to outdoors, for those mediums, a lot of things come down to permits in Hawaii, if you have a permit to go work at this spot, if you have a, you have permission. So to say, right down the street, there's two sites, two ancient fish ponds, and springs that we've actually had to fight really hard for, to even go and to take care of those places. And this is like millions of dollars, lengthy law processes. And so in terms of access to even go and take care of certain places, and to have that relationship to place. Very, very difficult in certain areas.

Reuben Fakoya-Brooks
Okay. So, but in terms of your so in terms of your access, or access, accessing higher education in biology and conservation, did you did you face any barriers, particularly?

Kai Hoshijo
Um, I was very fortunate enough to have mentors and people in my community that really lifted me up and would be able to direct me and network mean to Oh, talk to this Pupuna, or elder, as Pupuna means elder and Hawaiian, or talk to this person and you know, they can they can get your feet wet, they can take you to a certain place to get grounded and to really start working and connecting with people. But I do know that that that's not the same for for the rest of the communities here in Hawaii. It's definitely not at all the same.

Reuben Fakoya-Brooks
Um, what about you, Celina? Did you? Because, you know, your education was in the UK, like myself? Did you particularly face any barriers?

Celina Chien
Well, actually, I didn't grow up here in the UK. Okay. Um, I was born in Beijing. And I lived in, in Beijing in China, for the first 10 years of my life. And this is a huge city with little to no parks in the centre of city. So I had really limited, I wouldn't say access, I think just limited opportunities, to appreciate nature to go out and enjoy nature. There's very little urban wildlife, I mean, most, most of the bird life, for example, because I I specialise in birds, at least as a scientist, most of the bird life was, quite frankly, eliminated during the Cultural Revolution, historically, decades ago, because they were thought to be pests. So millions of birds were killed and removed from the city. To the
point where, you know, I had only ever seen sparrows growing up, and so that whenever, you know, the first time, I remember my first time I moved, I moved to Europe, and I saw a crow for the first time, I was like, This is the biggest bird I have ever seen. It's the most exciting thing ever, and I still have it to this day, like if I'm walking around London, I see a wood pigeon. You know, English people are like, yeah, okay, it's a pigeon. I'm like, such a beautiful bird everything is, you know, worthy of appreciation. But at the same time, I was lucky enough to travel as a child. And but in in China, and I think this is a less an a racial issue, but more just a cultural, or, or how an entire culture of people can have experience and enormous disconnect with nature, and how this relates to like, the support and even interest to go into study biology or conservation. If people don't have a relationship with nature, if people don't have appreciation for nature, how could Why on earth would they possibly care about protecting it? Or even, you know, being curious enough to look into it. And one of the things that I think, would have a huge effect on us on this in China in particular is the fact that like we would have, not only do we have very little opportunity to appreciate nature, because most of it in the big cities removed, but you literally had days, days where it was illegal to go outside because of how bad the air pollution was, you know, it was completely normal for me. As a child to be like, Oh, well, schools cancelled today, and we're not allowed outside and don't open the windows because the air quality is so hazardous that we can't go and appreciate the outdoors. Or even just like how rare it was to see a blue sky

Reuben Fakoya-Brooks

Where there fundamental differences, when you went to the UK and went to Imperial, as in, like, how was that order? was the difference? Or the main differences? You know?

Celina Chien
enormous. Okay, I, I actually, I lived in Switzerland, and it's a couple years. confusing. But these places, I mean, at least in Switzerland, there's so much. There's the mountains and the lakes, it's so beautiful. And I was really overwhelmed by how beautiful it was. And I think, really, I couldn't start nurturing my love for nature until I had left China. Yeah, and even like, considering the possibility of working in conservation. I always loved nature always, you know, watched David Attenborough documentaries, but at the same time, that was my only window into that world. So when I moved to Europe, it was like, wow, there's so much here. I mean, even even just like a, an oak tree on a row on like, planted on a sidewalk here in London. I'm like, it's such a beautiful. So I guess, I guess it allowed me to have this appreciation for small things that other people would normally overlook.

Reuben Fakoya-Brooks

Milka I saw you nodding, nodding quite a lot. So do you have anything to add to this topic in terms of like the barriers that you faced? In higher education? Did you face any barriers?

Milka Chepkorir

Not really. But maybe maybe before we get into the discussion of of the HE thing, I want to say growing up I was born and raised in the forest. So we have unlimited access to, to the forest and the resources, even getting to learn the species of trees in our own language and getting to know everything the way we are as an indigenous community, but with time and another section of our community that lives in limbo, but for us now having faced evictions, of course, because of the notion that conservation has to happen without people in the area. So the challenge now with that kind of a generation, the generations behind me is that they don't have humble time
to stay home to stay in the forest and learn about the species of the
trees, learn about the traditional way of keeping the forest, you know,
learn about the taboos, the do's and don'ts about these kind of a tree,
about this insect about this, you know, all that, that just drives
conservation, because to us, conservation is not about going to school to
learn about it. It is about how you've been born and raised to know that
this tree is not cut, you don't cut a tree to kill it for firewood, you had
just have to pick the dry wood, you just pick a small piece of a tree when
you need the hubs and not cutting the whole thing that is conservation to
us indigenous communities. And, and that is something that I appreciate
that I really grew up with. And I am really humbled to have known that. And
I’m looking at the situations now happening in in my community. And I see a
place where some generation will be talking about not having been allowed
to access nature in the future, if we at all, allowed the current fortress
conservation to continue because then indigenous communities will not will
no longer have the rights to protect or to conserve, I don't know how to
really define what conservation is because if we take it the school way, we
are really discriminating against the real people who are doing the so
called conservation who are indigenous communities. So then crossing over
to whether or not I had barriers of education. First, you know, let's
appreciate the fact that even the education itself is very discriminating.
And and it's taught in a way that does not appreciate our way of life
as indigenous communities and makes it, you know, we have to learn the
British way of education and you know, conservation is this conservation is
that in biology is this and that and that and make us look like what we are
and what we see is not biology is not conservation, but it is something
imaginary somewhere else. And in that way, then you find that most children
do not find the interest to really appreciate who they are and the and the
things that they interact with. Every day. And so and of course, with the
challenges of poverty and other things, and lack of schools, even in the
first place, make a lot of children not to be able even to realise their
their goals in life, whether or not they want to take courses in biology
and conservation. And I remember having, like the group that I had to
proceed to high school with from my village, what like half of them did not
proceed. So you can imagine if that is the the number of people seeding to
higher education, then how many will ever think of doing biology and
conservation, so there are a lot of barriers to other people, because they
do not even get to that level of realising what they want. But maybe I'm
just blessed said few that realised what we wanted to do in life, you know,
and and for me now, it was understanding why, why the government, why the
conservation agencies and why on earth people would think that we are not
supposed to be on our land because of them being gazetted as protected
areas for conservation reasons. How will an elder in my community and
everybody else that have not gone to school understand what these top down
approach of conservation means, you know?

Reuben Fakoya-Brooks
Yeah. Huh. incredibly interesting. And Craig. So what would you recently
had, like an article published a times have any advice about your
experiences on the barriers that you felt for black students considering a
PhD in the UK or any person of colour?

Craig Poku
Yeah, so so I'm so for background, I went to a comprehensive state school
in South London, where I then went on to then do a degree in mathematics at
King's College London, started a Master's. And not many people know this.
But I actually dropped out my master's, for a number of reasons, and then
worked in government, and then moved on to do a PhD. And what I definitely
found was that there were definitely barriers at each stage, whether that
was from people who were supposed to be mentoring me, or wherever that was,
from what society kind of expects from you. And I was fortunate enough to
go to a primary school, where so an elementary school whereby I had this idea that being black is something you should be really proud of. And that was something that really stuck with me during my secondary schooling. But I was fortunate enough that I was seen as one of the good kids. And so hence, teachers never really kind of like, batted an eyelid. But I was also aware that a lot of my black peers, definitely were being told, oh, you're troublemakers, oh, bad things are going to happen to you. You're going to end up in prison. By the time you're this age. Unfortunately, when you think about these really kind of like, systematic biases that people who are making the decisions for you are then stating, it's there no surprise, whenever you then have students who get told from the age of 6, you get told, well, actually, I'm not good enough to do this. For me, really, what then happened was, is that the problem I then faced was when it came to looking at choice universities, I was told that the choices of degrees that I was looking at Black students to do. I was told comments were by the idea of me looking at doing stuff in the natural world is basically a guess, unheard of. And it's actually really interesting, the discussion that we just had about conservation, cuz I was really interested in conservation. But that's mostly because I picked activities that gave me the opportunities to go outside and actually, I guess be in touch with nature, which I'm aware that that's a privilege that I had that not many other black British students may have. And then when it came to them doing my PhD, I mean, there were a little, it was like the assumption that everybody would be would have a set of walking boots. I live in South London, walking boots is something that you just don't think about. And so when I had to do my first fieldwork course, let's just say it was a struggle. And I think that because I didn't know many black British environmental scientists to begin with, in fact, as it currently stands, there are a very small number of us here in the UK. I then felt that I was again, really out of my depth, and then couldn't combination with some of the comments that I've received from some of my colleagues wherever that was, the reason as to why Africa is homophobic is because they have a lack of technology. The reason as to why black people basically don't engage in nature is because they want to basically do this, these comments Things that I guess I kind of faced. And now I've gotten to a stage where I'm like, I can't stay silent. And I don't know if I'm now being more vocal about it. Because I'm now in a position where now that I have the doctorate, I can now use my voice to basically, I guess, be more proactive about these things. So I did face a number of barriers. And I'm at the stage where I've learned how to, I guess, address them and kind of, I guess, advise future candidates going through the system. But I want it to get to a point whereby it doesn't matter whatever marginalised group you come from, I want it to be that you don't, you basically can go through the system, and not have to worry about the systematic biases that are going to work against you that's the stage I would love to get it but unfortunately, I don't think that's going to happen in my lifetime.

Reuben Fakoya-Brooks
So you said you faced quite quite explicit racism. To some it was this by fellow students or supervisors.

Craig Poku
Um, it's really interesting in the because in the UK, everybody claims that racism isn't a thing. And they say that it's you usually US thing. When an actual fact, I think that a lot of the practices that we do in the UK are systemic racism, it's just more that we don't like to talk about it. So I, it's fortunately, I've not had any direct racism from people who are like my supervisors. From the PhD onwards. However, I've definitely felt a lot of barriers from school teachers prior to me starting the starting my degrees, which I definitely realised they essentially internalise me saying, I'm not good enough for a number of opportunities. And I remember
one of the comments that really stuck with me was when I applied to the University of Cambridge 10 years ago now. And one teacher said to me that with the grades that I had, had I applied to the university, not only will I get rejected, but I will also blacklist the school for any future applicants who basically apply to the University of Cambridge. And yet, I still put my application in because I'm stubborn person. And I basically make that point. And when I got the offer, and for a number of reasons, it didn't meet the grades. But when I got the initial offer, another teacher said, and this one really stuck with me, I never got into the University of Cambridge, I got an offer, there is a difference. Now, comments like that were things that definitely put me off considering going beyond and above my comfort zone. And especially when it came to me looking at applied to do a PhD. It required my university supervisor, my undergrad to sit me down four times to say to me, look I think you have the capability to do that. So I definitely found that during the university system, that I have people who are more supportive of me, and I've met some brilliant mentors along the way. However, I do know that there are a lot of things that hit me at such an early stage that if I wasn't as resilient as I was, and I walked in half the visits that my parents gave me, I would have not gotten as far as I have now.

Reuben Fakoya-Brooks
Okay. um Kai. So you will see, you educated in American systems, getting is a bit different, or could be the same. Did you did this, did you face any explicit racism, sexism, classism, you know, you know, homophobia, and the does that actually, did this actually affect your sense of self or, you know, feeling of belonging in biology or conservation?

Kai Hoshijo
Yeah, so I had an interesting upbringing, and that I was able to go to a Hawaiian School of learning where everybody in the school is part Native Hawaiian. But yet, I took Spanish in high school. And I thought that that would get me into college, because I didn't want to take Hawaiian language. Because no university would recognise that. And then my first year of school and environmental studies actually was at Seattle University. And I honestly loved it, but I wanted to get as far away from my home and my culture because I thought there was no opportunity there. You know, it's a great grounding experience for my culture and my family, but in terms of conservation in terms of future work and opportunities, no way. But then I quickly realised that my connection to aina my connection to land and resources was so strained and so I came back home to study and is the best decision I ever made. But I did kinda grew up with that belief that no one would listen. And I think a lot of other researchers, especially before my time, have had to deal with this thought that Western science is this prevailing opinion over indigenous ways of learning indigenous science. And I think this goes down all the way to language, the way we use our language and how we refer to natural resources, because in my language, we have this idea of kinship to resources, like it's our family, our little brother, or little sister. And I think the English language in general is it's not really up to standards and capturing that meaning. And yeah, we I've had experiences where you don't feel validated, because I'm speaking about indigenous science and indigenous indigenous ways of learning in the university system. And I think, in general, there is a lack of addressing that there are the systems in place that cause harm to students, Indigenous students, but also biopoc students in general. And we have to start addressing them and being very upfront about them, because I myself, have my own ignorance. And I need to adress that, you know. But yeah, all of these, these inequalities are very manifested in our university programmes and in our research, in our very backyards, in Hawaii's communities. And it's really all fueled, or funded by our tuition and our taxes. And there
are many projects within science that are very contentious towards Hawaiian communities, and bipoc communities. So

Reuben Fakoya-Brooks
what would you say going to a native school? The curriculum? Was the curriculum, did that cater for that demographic? Or was it still quite whitewashed? Or was it still quite Eurocentric? And similar to what Milka I think, touched upon?

Kai Hoshijo
My, my schooling was, I feel like there were these emerging systems of indigenous ways of learning. But the school I went to has undergone so much change over time I talk to the graduates from now. And they're actually required to take Hawaiian language, they're required to go through protocol, they're required. When I was there, it was not like that. And this is not that long ago, maybe 5 to seven years ago. And so there were these emerging systems, and that was really fueled by some of the instructors there, and the alumni and the community groups within the school. However, yes, they're very colonised ways of learning in a Hawaiian place of learning. And I was a Christian school and I distinctly remember chaplains and Christian teachers, speaking at public events against same sex marriage. And this greatly affected students. I think at the time in the legislature same sex marriage was was up for vote and this I could see how it just had a really, really harsh effect on students. Because there's this heaviness towards it this komaha what we call it heaviness. And I really affects the way you learn it greatly affects the way you interact with your your student body. And so it created walls definitely.

Reuben Fakoya-Brooks
Milka you because you see, you see, face something quite similar to you went to where your education was at University of Nairobi. Right. Or currently still is. This Do you find the curriculum still quite Eurocentric, even though, you know, or still quite colonial in the sense that it doesn't necessarily cater to the demographic and which is predominantly there? Or the students?

Milka Chepkorir
Yeah, Ruben, of course, it's still very, very, very Eurocentric, I would say it's certainly still the same even in in primary schools and high schools. And yeah, I would expect that by this era, the education system would have been recognising like be able to recognise indigenous ways of life, especially in universities, but sadly, it isn't yet there. I think it's because it's not the system, but the people driving a system that have been colonised. So unless the people unlearn what is wrong, then it is still continuing even if we write in laws that this thing has to change. Because I suddenly remember just the other day, in my master's classes, late last year, when I was, you know, trying to bring in the issues of gender and environmental protection or conservation, as you call it. And of course, being from an indigenous community and though by then my community and another community called the Ogiek community in in one of the forests in Kenya called Mau forest, we're facing evictions, and are just, you know, out share the experience in class, and this lecturer would tell me, you know, just quote this, you know, communities like yours are late comers in the development process. And so this is why the government is trying to move them out, so that they can live like other communities. And and we protect the forest. That was really offensive, super offensive, I had to tell him off, I had to really express my, my feeling. And then then I just had to ask him where the world will go, if this is what university lecturers are teaching postgraduate students, I could only imagine what is happening in high schools, what is happening in primary schools. Of course, when I was there, this kind of discussion wasn't in my mind. And now that
it is here, I can just only imagine what is happening at those other levels of education. And, of course, in very many ways, they're very mean comments made about communities that are traditional indigenous communities, especially that lived in the forest, because being a Sengewer and other communities that live in the forest, were very few and not all the populations in Kenya know about ourselves. And so sometimes in high school and even in primary school, people are asked from which ethnic group are you? And I would be like, I am Senegewer, you know, and everybody will say, well, who are those? Where do you come from, you know, they just make you feel like you don't belong to this world, or, you know, and, and such, just make people not want to call themselves who they are, because then they are made to feel bad, and it is still going on. It still happened even during my master's classes. And that's why I'm doing specific, a specific project, my master's project on gender and conservation, whatever it is, but focusing on indigenous people, because this is something that I would really want the world to know and everybody else who do is doing conservation or forest resource management to know so that at the end of the day, people can appreciate that they are people who are taking care of nature, and should be the way the British or whichever other conservation party is, is telling the world to do you know, we don't have to militarise conservation, we don't have to take care of, of trees by using guns and killing people, but appreciate the people who are taking care of it, no matter the levels of education they have gone to. So that then brings us again to the discussion of education Do we have to go to school to be recognised as as conservators or as biologists these things have been there even before schools came, so let's appreciate it and unless we want to lose it all because we are in this school of biology and conservation now and someone else is in a school of architecture and and construction and all that and they will come walk against what we are doing, you know, so unless the world really speaks about conserving nature, all of us and not others thinking about exploring oil and mining, which is going against what we are talking about here, then we will we will just crash the earth. It's very, yeah.

Reuben Fakoya-Brooks
Oh, Celina you put your hand up.

Celina Chien
Sorry, can I just add to that I want to i Milka was talking a lot about you know, what, what does conservation even mean? And I like completely agree with her. You know, I, I am not an indigenous person. Um, but but I shared Kai's experience in the schooling system where I tried to like erase the part of me that made me different to everybody else. So I can't read or write Chinese. I never learned how to you know, I never learned Chinese when I was in school because I was it. I went to an international school. So everybody else was your And they were all foreigners, even though we were living in China. And so I thought, Okay, well speaking Chinese will only make me seem even more Chinese and I don't want to do that I'm going to reject that part of myself, which is just a horrible, it's not, you know, I recognise that now is internalised racism. And it's the same, like as women, as you know, the global, non global, but you know, Western Hollywood standard of beauty is, you know, white woman. So, there are so many other challenges of growing up as women of colour or girls trying to, you know, figure out your appearance and, and, and consolidating with, you know, oh, well, maybe I should just reject the parts of myself that make me different. Um, and it all like comes down to like this All links into, you know, personal identity and, and bringing that back into biology and conservation is, is how, as scientists, and as Milka said, you know, you have, we have an idea of what conservation is. And the word, even like in English conserve is to protect something that once that is like to keep something the same. So it's like protecting the state of the past. And this
whole idea is founded on this colonialist I this colonial Oh, coming to these places elsewhere and seeing like, Oh, well, we don't see anybody right here right now. This is how it's always been, there are no people here. And we're going to preserve it in this like, pristine state. And we're not going to touch it. And that's conservation. That's, it's Yeah, fortress conservation. I think that's what Milka said, um, when, in reality, indigenous people have been existing, as part of the ecosystem. You know, and I think so much of how we see ourselves as human beings, and that's a fault of colonialism and biology is seeing like, oh, there's human world, and, and there's nature, and they're completely separate. And there's humans and other animals and they're completely separate. And we can we need to completely like, obliterate this way of thinking honestly. Because, you know, there is there is a possibility of existing in nature, being a part of nature, having this equal relationship of both nurturing each other, you know, the earth nurtures us, gives us everything, and there's, you know, we can also nurture Earth in return. Um, and the whole idea of conservation and protecting line that is completely separate from humans is just inherently flawed because humans and indigenous people have been existing in nature for thousands of years, in a healthy, respectful, grateful reciprocal way. And like, just from my experience as a non indigenous person, I went to university I studied biology, and I you know, I, I never questioned the like, yeah, the colonised the coloniser way of thinking, because that's what I always grew up with.

Reuben Fakoya-Brooks
But um, would you say there's distinct differences between being other people colour? So for instance, would you say being a minority person of colour and a majority person of colour, do you think there's a distinct differences in terms of your way of navigating in conservation and in biology? You are nodding Kai.

Celina Chien
I don't I just want to say I don't know what like minority and majority POC means,

Unknown Speaker
oh, it's, I think it's for my experience. So when wanting the BME network for the for British ecological society, it's, I have to try and navigate ways in approaching people have different experiences. Even within being a person of colour my experiences as a black boy, navigating for a career within academia is going to be different to a person who is an ethnically Chinese, or southern Asian, you know, descent, and it's about targeting or helping each sphere individually knowing that you may be even more disadvantaged in comparison into someone else, because I feel like naturally people just group everyone who's an ethnic minority into one big

Celina Chien
Yeah.

Reuben Fakoya-Brooks
meld or bubble to some extent. And that's not necessarily the case. But there is there are slight nuances.

Celina Chien
Absolutely, yeah. Yeah. Can I just quickly just, I really want to finish what I was saying. But then and then well, we'll, we'll build on this for sure. And I just wanted to say that like, through my, my career in academia, even in like photojournalism, heavily colonial as well. And I just want to say, like, after I graduated, I started reading books by indigenous people reading books about, like, indigenous wisdom, and how we can combine that into science and how science is, is lacking, because of its rejection of
 indigenous culture and, and how, you know, like science is, so that's spiritual, or that's, it's about feeling, and they completely rejected when in fact, you know, when it comes to protecting the planet, that's what we need. And I just, quite frankly, I feel so lied to,

I feel like I've been lied to. And I feel like it, it invalidates so many different people's experiences with how they can form relationships with nature, by strictly limiting them to, you know, the scientific framework. And, and like Milka said, you know, we really like hammer away at scientific truth. And we reject these other forms of ideas, but, but in the natural world, when it comes to human experience when it comes to non human experience of other species, this is, there are multiple truths, and we're only looking at one of them. And the best thing that we can do right now, to protect the planet, and to uplift people and empower people is to, to open ourselves to these different truths and be different voices, different ways of thinking,

Reuben Fakoya-Brooks

Very true. Craig, your hand up.

Craig Poku

Um, I just want to kind of follow up on these two points by also don't want to like, take up too much, because I'm aware at the time as well. So not from the perspective of indigenous people. But I also think as well, that a lot of the science that we still do is very colonised, and especially from my perspective, as a climate scientist, we definitely still see the way how we approach climate science as a very Eurocentric way of doing stuff. And as an example of I think that when we think about climate activism, especially with groups such as extinction rebellion, they claim that they're trying to talk for all voices. But yet, when you see the protests, you see that there are predominately white middle class, particularly males, who basically are on the forefront of these protests. And so the first thing that I then went through my mind when I saw it, so that I went, is the way how we're delivering climate science information, or the way how we're trying to, I guess, approach climate science, is that the way is the right way at the moment. Correct. And so I guess, within the work that I've been doing, the thing that I've been doing myself is I've actually been going, why do we still have these kind of assumptions about climate science. And it's this whole idea that, because we still see, like the global north, or as I like to now think about as the minority world as the source of power, we then basically feel that that's the way how we should be delivering said information, when in fact, what we should be moving towards is the fact that every single person in this earth is benefiting, and every single person has an equal voice when it comes to trying to actually think about conservation. Think about nature, think about our future climate. And the fact that we still do silence voices or eradicate voices, particularly from either minority voices or indigenous people. I think, actually, we need to kind of stop and think why are we doing that? So whilst again, I'm not talking about this one, like, say, biology conservation perspective, I do definitely resonate with some of the comments that the other panellists have made. And I think that when we think about science, we are past the point, as scientists just think about science for the sake of science, we need to now start thinking about the human experience and human stories and actually be able to take these stories on board. So as scientists, we actually actually can develop the way that we think and this is something that I'm very passionate about, I guess.

Reuben Fakoya-Brooks
Could you tell us a bit more about your research? Because, as far as I'm aware, I don't know that much about it, but I know it's focused within India fog related. Um,

Craig Poku

yes. So my prior research project was to understand how we can improve forecasting over To UK by understanding the interactions of pollution, and fog. So in a very simple manner, pollution has different compositions, some of these compositions will allow for condensation or fog droplets to form. So you need pollutants to then have fog. And so my research was looking at that interaction. Now, I'm now looking at that same interaction, but over northern India. And what's really interesting is that is an example is seen as a place of really high pollution. However, what was very interesting for my entire research was that it was this idea that we get told, you're thinking about it as a scientist, just think about it as a scientist, nothing more, nothing less. Think about it as a scientist. And even though we may, for example, talk about say, kind of like impacts is the impacts are all associated with economic loss. We always use this one quote, whenever we're doing fog science, fog can cause as much damage as winter storms in like North America, which is why something I'm like that's great and everything. But I remember the very first case of fog, which was associated with Bonfire Night, and as an asthmatic, that was something that was really important to me, because obviously, I need to be able to breathe. And now when it came to the work that I'm doing in India, was really a, it was that we have to talk about it from a visibility economical perspective. Whereas we were very, we were advised to avoid talking about it from like a health impacts perspective. But one thing that was really interesting, and speaking to some of the scientists out there is that whenever people in the UK think about fog, they think about it as an inconvenience. Whereas some of the people who live in Delhi, when they think about fog, they think about poor air quality, and then there's an associate wear association with poor mental health because they go, it's not I can't see is the fact that I won't be able to breathe. And that's a very, scary thing and the fact that I don't know if the reason as to why I think about science, the way that I do is because I'm a minority in a predominantly white space. And so because of that, I've got a different perspective about how I approach this work. And so now, whenever I approach my own personal research, I now go as a scientist, how can I take onboard the stories of this people who live in the areas that I'm delivering the science to actually aid me as a scientist? And that's something that I know that I'm still in the very early stages of, I guess, exploring, because I do still feel like I have a very colonial way of still approaching science, but I'm aware, I have that self awareness. And that's something that I'm still growing, I guess.

Reuben Fakoya-Brooks

So that's quite interesting. Yeah. A bit so. So it's interesting, are you always trying to decolonize your mentality some extent, would you say then that there are like, almost like key differences to like a scientist outside of the country? And then in your case, like the Indian side, Indian scientists, yeah, for instance, in terms of driving policies, and is are there like certain nuances? You know, from the UK, you know, adopting this quite Eurocentric mentality and way of thinking, and then there's this Indian way of driving change or policies, or any difficulties in navigating spaceflight.

Craig Poku

I have to be very careful of what I say because I'm also in the position of trying to apply for further funding. But that said that I'm going to say is yes. Because I think that as scientists, especially, and I'm including myself in this as well, but whenever you do science in a very westernised
way. And whenever you do collaborations with organisations outside of the Western bubble, they're still a lot of attitude whereby it's not that we are equal. But it's more that we are there to save the problem. We are there as the white Saviour in order for us to be able to deliver our excellent science, and basically, you in every way, shape and form. And that was something that I was very vocal about very early on. In the University of Leeds, there are a number of collaborations within places in Africa, places in Asia, and I'm talking about these as continents. And the reason I make that clear is because we are very quick to send scientists over there to deliver research but it was very It was very uncommon for me to see the relationship happen the other way around. or whenever we do have that relationship have that happen the other way around. I was always finding that they weren't be seen as the experts. But there was still being seen as people who were trying to gain knowledge from us when actually, their stories and their way of dealing with science is just as valid as what we do in, say, the University of Leeds. And I can feel and I one thing I definitely felt, especially in this particular project that I'm doing is that a lot of the policies or a lot of the ways of thinking in terms of air quality, is still very driven by the West, we were in the eight, late 1800s, we were going for the Industrial Revolution, whereby we, in terms of Britain was doing everything they could to ensure that they were going to be the best leaders of today. But yet, whenever you've got somewhere like India who has tried to do very similar tactics in terms of their own personal development, we've got a way of going, while climate change is happening, you need to basically stop your development, stop your urbanisation, in order to ensure that you can't do that. And whilst Of course, you could argue they're doing it because they're thinking about the economy, or while the in terms of climate change. By doing so you're also essentially throwing very colonising ways of doing it, it's then going, we are always going to be the ones in power, and so now, what I'm trying to get people in my department who do kind of policy work to go is go, we need to acknowledge that everybody should be on the same footing in this world. So you need to change the way how you're trying to deliver the message and actually get their viewpoint in board. And by doing so you're actually then find that you have a much stronger collaboration. It should be a knowledge exchange, it shouldn't be a We are the white Saviour, you are the server.

Reuben Fakoya-Brooks
Yeah, definitely, definitely. To steer the conversation a bit differently. I'm Shay. Um, so there appears to be like a biological effect to those who experienced trauma due to racism? And could you tell us a bit more about this topic area, because I know your research is centred around that.

Shay-Akil McLean
Yeah, so um, at the core of what my research really is about, is taking into consideration that the way humans treat each other has life or death consequences, which seems very simple, and something we should all be able to agree with. But ultimately, it's a, it's a core point that Western science has really worked hard to try to ignore. Because ultimately, how you treat people, and how you treat land, and how you treat non human animals, and organisms, is all tied together, all these are tied, closely tied relationships, most importantly, ecological relationships. And one of the main things that I do with with my dissertation project specifically, is move from understanding, collecting or analysing information on race and within genetics research, by using a series of different race proxies, right. So self identify race and ethnicity, or their studies that they use on percentage of African ancestry, or they just use a general percentage of genetic ancestry as a proxy for race. So one of the things that I'm I'm doing is in my sample, the the race proxies that I have, are mainly focused on interactions. So how does somebody end up having a quote unquote, self identified race or ethnicity in the first place? That's an external
process. Nobody is born and knows what their races is, because it's not it's not how any of this works. It's an ascribed status. It comes after same way gender works. So paying close attention to the fact that the only way that we could have the relationships that we currently have with one another, politically, economically and socially and ultimately environmentally is if a particular power dynamic is set up, right. So one of the things that I try to get people to pay close attention to in my research project is what race and racism, like race is a child of racism, that not only is a race is the child of racism, racism in and of itself is a human ecological system. In a series of different ways and levels, most importantly, it's a human ecological system that shapes human genetic variation, people are here, and then they're not. And that is very visceral, like, somebody, it takes a split second for somebody to end up being killed by a police officer, not just in the US around the world, because police suck everywhere. So it's the police. But um, one of the things that I try to solve, basically trying to draw attention to is, well, what interactions are occurring, that are kind of like, what interactions are occurring behind what we see as self identified race and ethnicity? Right. And then another measure that I use is well, what does the respondent what is the respondents understanding of what they think other people racialized the mass when they first meet them? So this is telling you a little bit about the kind of social political environment that they're embedded in. And it's also telling you about a series of other conditions, it's telling you about socioeconomic status, is telling you about access to different kinds of resources and institutions, it gives you a probability or likelihood regarding where they live probability or likelihood regarding whether or not they have health care, health insurance, right. So I think that all that is extremely important information is just that it's been improperly analysed, is being analysed not only in a completely wrong way, but in the absence of the context of the historical information, which is crucial to helping us understand what's happening to people. So ultimately, like, for instance, when I tried to explain, especially to sociologists that this isn't a conversation about whether or not it's a race or its socio economic status, it's both capitalism is racial. The only capitalism that we have ever known on this planet has been racial is racist. Most importantly, because of something's racial, it's racist. Only racism makes racial stuff. So ultimately, it's important for us to then start recognizing that this has to do with the material conditions that people have access to. Right, and this has to do with the the kinds of stressors they deal with on an everyday basis. And what kind of control do they feel Do they have over their own lives in the lives of their loved ones? So a lot of this is ultimately about drawing close attention to like the colonial relationships that we still have between one another because ultimately, of course, everybody in the West would like to argue and believe that we are so far behind like, we're so far past that, that was so long ago. Great. Now, neoliberalism is great. We're all having fun. And nobody's racist. But we all know that's not true. Basically, what I do with that project is look at the relationships between those measures of quote, unquote, race, what people are using as race proxies, the common percentage of African ancestry, and then the other two race proxies that I have that are grounded in measuring it based on interactions. Okay, I'm looking at the relationship that those race proxies have to five different candidate polymorphisms for hypertension, that we know are associated with controlling blood pressure. So looking at the relationships between those variables, and looking to see what models are better at predicting diastolic blood pressure, average diastolic blood pressure, or average systolic blood pressure. And the the way that I go about doing that is grounding the basic understanding of what, to some extent, what Nancy Krieger she's a public health scholar she refers to as her equal social theory of disease distribution. What I end up doing is trying to address some patches, some holes in that theory. And because
ultimately, when we talk about the biological consequences of racism, or the genetic consequences of racism, there's a series of assumptions that we're making. We're assuming that things are actually separate. That organisms are actually separate from their environment, which we all know is not true.

An organism is, by definition, a part of the environment, it helps shape and co constitute its environment environment helps shape and co constitute its own form of expression. So with that understanding, with that general understanding how can we have a more materialist, like analysis regarding what is actually happening to people's bodies, right, ultimately, and one of the things that I end up looking through is the general understandings of embodiment. And we, embodiment as a concept is very fluffy. And that's one of things I find annoying. But one of the things that I did with my research project is use the theory that is more grounded in understanding human interactions over time, and at a series of different scales, utilising that to help ground the concept of embodiment, like how, how basically, how is the environment being internalised? And then the organism also expressing itself as a consequence of that? What does that dynamic actually like? And also articulating that and more of an evolutionary context? Because, for instance, one of the things they see Krieger argues about the significance and importance of understanding differential disease distribution is that we're not concerned in any way with necessarily allele frequency. Right. That's not the issue. The issue is gene expression. That's why we're dealing with these issues regarding health inequities. And that that argument in of itself, is an avoidance of evolutionary genetics. Because it's not true. We like anybody who knows. Evolutionary genetics understands that at the most basic level, it is definitely possible for a series of different different congenital diseases, that like in other other later formed, could be chronic illnesses and conditions, to have a direct relationship with allele frequency, definitely just alone from bottlenecks bottleneck or founder effect alone. Random genetic drift is the rat. So there are evolutionary consequences. So ultimately, so when we start, this gives us a different kind of context, then, to understand what's happened in the last 700 years. And then what's happening now, and the things that we can do moving forward, because ultimately, we keep affecting differential life and death distribution at a series of different levels. Okay.

Reuben Fakoya-Brooks
That's incredibly interesting. That said, it's almost like, obviously, racism has close ties to biology and conservation, just in general. terms of biologically, and obviously Kai. You know, as you know, Hawaiian, you know, natural land is inherited and protected by indigenous people, and often threatened by large corporations, you know, wanting to clear natural sacred land for construction. For instance, you know, the mega telescope on Mauna Kea? Could you tell us about, you know, your experiences is like an indigenous person in Hawaii? And like the results from your research, particularly on indigenous land and resource management?

Kai Hoshijo
Yeah, sure. Great question. I think I'd like to start by saying that it is really difficult to be Hawaiian on it's difficult to be Hawaiian, in on Hawaiian land. And there's so many historical timelines up to this day that show that inequality with how we manage our land and resources in Hawaii. And like I said before, we literally have a word for our perspectives on land, and it's called aloha aina. Aloha meaning love, and aina meaning land. So this term goes back centuries. And it truly embodies that kinship that Hawaiians have to our resources. We see it as family and we love for and care for it as such, because we know that it feeds us. And so when it comes to conservation in Hawaii, the guys there lies of great inequality,
towards Hawaiian perspectives, land ownership, native and customary rights, especially for subsistence practices like hunting and fishing. And there's this idea of we are doing good by Hawaiian culture. And a good example of this would be condemning land for state managed parks. Many places have been condemned in the past and they've removed Hawaiians that have taken care and not just practice their culture. But have lived their farm they're taking care of that place, buried their ancestors there. A good example of that would be like Kolalau trail on Kawaii Island. It's protected for its natural flora and fauna. But only a few generations ago, the Kaua Mauana family was still living in farming in that valley. And so when you take this human element, that Hawaiian element and you remove it, it unfairly allows access to people who can afford to be there. But yet Hawaiians that have generations of connection to that place are put to the side on Maui Island, and on Oahu Island, millions of gallons of water are diverted from the eastern side of the island, which are very rich in water. And they're diverted to the Western drier areas. And this goes back from plantation areas, the plantation era. This is an example where Hawaiians are kind of continually taken advantage of and they're kind of treated as insignificant. You have a large corporation diverting water for large scale agricultural production, or for residential development. But the water is being diverted from very low income Hawaiian kalo farmers or Taro farmers, ecosystems, and communities depend on that kalo that they grow. And on top of that, the legal processes that many have to go through just to go walk, walk an ancient fishing trail or to go hunting to feed their families is so hard. permits are easily given to a million dollar developments all over the state. But yeah, for Hawaiian families to be Hawaiian, takes years it takes lifetimes and many elders have died without having that water returned to their patches. And I guess yeah, from my research with interviewing, working with land and water resources, from this Hawaiian perspective, there's a lot of heaviness or guilt. This intergenerational guilt, and heaviness. And families live with this guilt of seen these changing landscapes and Hawaiians constantly removed for the benefit of business or foreign interest. And that's like a huge problem in science and resource management, this concept of we're doing good in conservation, but it's okay if we disregard native tongue of the land. So that 30 metre telescope. So I'm the 30 metre telescope proposed for Mauna Kea is another example of the Hawaiian community saying peacefully No. And kiai or protectors were holding space on Mauna Kea, for months, and they blocked the road there. And they actually set up what was called Puuhulu hulu University. And so they had lectures come to head practitioners come in every single day, they cooked for each other, they held space, and they actually taught classes. But they were met with police. And 30 elders were arrested during the protests, and I mean somewhere in wheelchairs. And we're met with PR campaigns to twist narratives to say that it will provide jobs for the local community and will give scholarships to Hawaiians and stem research. But to us that won't feed our families. And that only makes us more reliant on that Western culture, which has not been reliable. So there's this large issue of we're doing good by Hawaiians. But is it really Hawaiian? And how can you tell a native culture that has sailed across the ocean by the stars without any Western technology? They just finished a worldwide voyage in 2015. How can you tell a culture like that, that we need to see the stars with a telescope? And the reality is, is we can see and they cannot see. But it's also an important responsibility to not create that wall and also understand that okay, we need to help everybody see we need to need to help and share and not cut ourselves off.

Reuben Fakoya-Brooks
You have you did you often have you faced some similar, you know, challenges to working with? Sorry, no indigenous person advocating or advocacy?
Milka Chepkorir

Yes, Reuben, yeah, just listening to Kai feels like listening to myself, but now in a different way and listening to someone from my community because the experience is just the same, you know, the removal of people from the forest in the name of conservation has been here, but we have been able to resist that for some time. And, of course, the consequences and impacts on the way are really dire. Sometimes people have had, you know, people have been killed, we've lost very many elders who have gotten sick because of being exposed to cold, of course, when I mean eviction, here, I mean, people just their houses being brought down and burnt and everything is destroyed by fire. So people are left in the forest in the cold, we have, we have just had a lot of loss, culturally and property wise and all that. And, of course, we have done a lot of advocacy at the national level, just to make sure that the community land rights are recognised. So we have elders who have been fighting for this cause and actually succeeded to have an act, I mean, an article in the constitution to recognise community land rights. And, and, of course, an act followed an Act of Parliament followed later. And another Act of Parliament, specifically on forests followed up later, but that one now did not actualize what the Constitution says, Because according to the government of Kenya, still, the fortress way conservation is is is what runs today. So, according to them, communities cannot claim land, that is in forest reserves, you know, and despite us being there for all these years, that is not still something that they can practically come to reality to. And that is why every chance is continuing. And so interestingly, the evictions continue, often when there is funding from abroad.

So, yeah, and, and some organisations, some conservation organisations have had to pull to pull out for a number of times because of the evictions and the human rights violation associated with the conservation paradigm in Kenya, and recently towards the EU actually says, I mean, cancelling a project, a conservation project, because of the human rights violations still, against my community and another community, the Ogiek community. And yeah, to me, I'm just trying to process this and looking at the paradox, between, the government of Kenya, and maybe the whole population in Kenya, but is not forest indigenous communities is because we are fighting against a system that was brought by a colonial government, you know, the the system that denies people to be in forests, for conservation reasons. And now the funding that wants to support conservation, again, through the government still coming from the same places, you know, the same colonial places. So even when we are speaking against the funding, or even again, as the the conservation paradigm itself, the government would often say, No, you know, you're you're, you're opposing funds that should be coming to support the government, you're being you're following ideas of white people, you know, so they don't even appreciate the fact that it is us who have been in the forest for them for longer. And and that is what we want to still preserve. So their interest is just getting the funds, which we don't know exactly how they're going to do to practically do the conservation using those funds. And yeah, that's what I would say. Yeah.

Reuben Fakoya-Brooks

Would you say? There's like slight, would you say are the different challenges then working at like, an international level, cus you worked the international level, and then like opposed, like the national scale things?

Milka Chepkorir

Um, the challenge with working at the international level is that you will talk and people would really want to look like they are listening to you, and they would look like they really caring and then Oh, yes, sorry, because this is happening. But in reality, that is not it. Because as I said, the funds that still go on to support the conservation paradigm is
still from the same places. And yeah, I will just give one example. One time I was in Oxford University for a summer course on conservation just before 2018. And we met a professor who lectures at the School of Environment and Science. And, you know, the very same idea of conservation is opposed to people in forests or more people in conservation areas, is what he teaches. And that really got me thinking, okay, now I am in the heart of where this kind of knowledge comes from, you know, now I understand why the Kenyan government cannot appreciate the efforts of the practices by indigenous people to conserve. And yeah, so the challenge is vary, so that is the kind of challenge that comes when you're in an international platform. It is, you're being lied to on the face, you know, with a very smiley face, that is what happens in an international level. But at home, it is both brutality and lies just on your face. And, and, and, and, and, human rights violations just on your face. So either way, it's just still challenging. And it's even more challenging at the national level, because no one really wants to believe that you are speaking something that makes sense, especially because you are an indigenous person. And maybe you have not gone to school enough to be a doctor who and who or a professor who and who, and they will ask you, as I said before, they'll look at you and be like, ah, are you in business? No. And that does it. It demoralises, it makes you really realise that really no one is out there to want to listen to you. Or sometimes, of course, they're more diplomatic ones will give me a smiley face. But in reality it is nothing that they'll be doing. Yeah.

Reuben Fakoya-Brooks
Well, I'm just aware of the time now. So he's only got few more minutes before we finished. But I would like to just, you know, conclude the panel discussion. And in terms of, from what I've heard, is almost the similar theme, because everyone's obviously, face very individual and specific being a specific, you know, situations with regards to racism. And just they're in a, how its approach within that country and how they experience that is very distinct. But I think there's something I was always quite universal was that there was this Eurocentric, quite colonist approach in teaching and approaching conservation in biology? And does anyone have any solutions? You know, going forward? One, you know, with regards to that being as like a barrier, and to, you know, how is that affecting, you know, our, you know, journey through academia and conservation biology, and maybe someone else? No, person of colour? Craig and Celina got both hands up. So I would say, Craig first, and then Celina, quickly, because we only got a few minutes. But yeah,

Craig Poku
thank you, I think the thing, the reality is that as a person of colour, we never unfortunately going to be. I don't think that in my lifetime, there will be a proper representation of people of colour within climate scientists, as long as I'm in academia at this moment in time. And so the thing that I would definitely say is that to my white colleagues, who may be listening to this is that you need to be able to at least educate yourself. I think that as a person of colour, I've definitely found that I'm really looking at educating myself in terms of some of the colonial ways of how I approach science. And in addition to that, as well, how potentially how my ways of dealing with science may be, for example, exclusionary to the indigenous people. And whilst obviously I'm talking about this, and we're climate science perspective, I could definitely say that this could be related both to biology and conservation. So I think that's the first step that needs to be done. And then the second thing that needs to be done is once we are able to at least acknowledge that a lot of the science that we do deliver is still within a very colonial way of basically working. It's working out, what can we do to actually try and
practically decolonize that, does that mean that we basically need to get experts who, for example, are from underrepresented groups, that we need to be able to stop pretend kind of practices that are basically being put forward whenever we're delivering science curriculums? Can it be as simple as saying that actually, we need to acknowledge that English is the language that we use in all of our curriculums. But actually there are other languages that still have just as much weight, if not more, I think that the first thing we can all do is education. And I know that there are some of my colleagues who have already started that but I think that This needs to keep going on, I think we need to basically see as decolonization to some people as a buzzword, actually, decolonization i think is the first step to actually realise that we need to be able to do this for us to be able to be united as scientists.

Reuben Fakoya-Brooks
Celina.

Celina Chien
That was beautifully said, I don't know I'm gonna follow up. But to add on to that idea of educating oneself and decolonizing our systems, I think it's also important that we, as scientists, as communicators, as human beings, as people, we reevaluate and re examine the way we approach these issues, the way we see ourselves in the world, the way we engage with the natural world. And, you know, personally in terms of my research, and what I do as a scientist, but also as a photojournalist, communicating environmental issues to the public, is, is using science to to show people that like decolonization is the way forward, it is the better way to you know, speak their language. And so, you know, like we have you have any evidence that says, you know, this is this is the way forward. And so, for example, one of the things I look at is like land sharing over land sparing, which is similar to what Milkha was talking about how like, instead of fortress conservation, let's realise the conservation value of land that is inhabited by indigenous people. Let's remember the fact that you know, only like, the, of the whole global population, only 5% of all people are indigenous, and yet they protect 80% of biodiversity, you know, and it's just using our, our platforms, our skills, and our voices to really hammer this decolonization myth message home. And and decolonization will then lead to protecting biodiversity, it will lead to the empowerment of women, it will lead to racial justice, and social justice. And it's all connected, which is really the meaning of intersectional environmentalism.

Reuben Fakoya-Brooks
No, definitely. Definitely was beautifully set up both Craig and Celina. I don't think I've got anything to add to that. But yeah, I think that rounds up the discussion, or I think to end I have to thank the woodland trust for sponsoring this panel discussion. I've got almost a short statement and the slide to show quickly. So I'm going to share my screen

if I can figure this out on Google Meet. Okay.

So is my screen being shared now?

Is it being shared?

Oh, I'm not too sure if it's being shared.

Celina Chien
It's not being shared

Reuben Fakoya-Brooks
Not being shared. Okay.
No. Is it? It's in the bottom right corner. Present now.

Okay.

So yeah, the Woodland Trust is committed to ensuring equality, diversity and inclusivity and of groundbreaking woodland conservation research that they fund, you know, we aim to increase the diversity of scientists in our scientific community by reducing barriers in our research funding application process. Opening our first public call for grants in 2021 is the first step in that commitment. Our research programme focuses on five major themes, tree and woodland health, tree and woodland management, trees and farmland, economics and ecosystem services, and land use change. If you need research funding one of these areas please do apply for the 2021 Woodland Trust research grant call. And you can contact them and find out more on the Woodland Trust website.

So thank you, the Woodland Trust, let me stop sharing now, for sponsoring this panel discussion. And I thought personally, it was very eye opening. I've engaged, listended to and learn a lot from everyone's you know, just from the expertise and experiences from one side of the world to the next. So that ends this panel discussion at the Bio-Diverse Festival.

And thank you.

Celina Chien
Thank you. Thank you very much everybody else.

Shay-Akil McLean
Thanks, everyone.