

International Development Committee

Oral evidence: UK Small Island Developing States Strategy, HC 1298

Tuesday 5 September 2023

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[Watch the meeting](#)

Members present: Sarah Champion (Chair); Mr Richard Bacon; Theo Clarke; Mrs Pauline Latham; Chris Law; Nigel Mills; David Mundell; Kate Osamor; Mr Virendra Sharma.

Questions 46 - 86

Witnesses

[I](#): Kristal Ambrose, Founder and Director, Bahamas Plastic Movement; Vinzealhar Nen, Co-founder, PNG Climate Change Tribe and the Sustainable Ocean Alliance PNG Hub, and PNG Co-ordinator, 350.org; Alisi Rabukawaqa, Project Liaison Officer, International Union for Conservation of Nature; and Jeremy Raguain, Former Communications and Outreach Co-ordinator, Seychelles Islands Foundation (SIF), and AOSIS Fellow.

[II](#): Christopher Pearce, Principal Marine Geoscientist, National Oceanography Centre; and Martin Chong, Programme Co-ordinator, Pacific-European Union Marine Partnership (PEUMP) Programme, Pacific Community-SPC.

Examination of witnesses

Witnesses: Kristal Ambrose, Vinzealhar Nen, Alisi Rabukawaqa and Jeremy Raguain.

[This evidence was taken by video conference]

Q46 **Chair:** I would like to start this second session of the International Development Committee's inquiry into small island developing states and their ocean ecosystems. Today we have a range of people who are activists involved in their local communities and who are passionately trying to make a difference. In our second panel, we will be looking more at the broader picture. Could I start by asking each panellist to introduce themselves? Kristal, could you introduce yourself, then Vinzealhar, Alisi and Jeremy? Kristal, tell us your name, organisation and a little bit about your work, please.

Kristal Ambrose: Good afternoon. Thank you so much for having me. I hail from the beautiful islands of the Bahamas where I am the founder and director of the Bahamas Plastic Movement. This is a non-profit environmental organisation geared towards raising awareness and finding solutions to plastic pollution. We do this through research, education, citizen science and policy change. I am currently taking this call from Malmö, Sweden, where I am a PhD candidate—I will be defending my dissertation on Thursday—and I am studying governance barriers to plastic pollution for Caribbean small island developing states. Thank you so much for having me today.

Chair: Good luck for Thursday. Let us know how you get on. We will be rooting for you.

Kristal Ambrose: I will do. Thank you.

Vinzealhar Nen: Hi, everyone. I am from Papua New Guinea and I co-ordinate the activities of two different NGOs. This is apart from my day job. I work with the Sustainable Ocean Alliance Papua New Guinea Hub and 350 Pacific PNG Hub. Mainly we work on awareness and advocacy in terms of ocean health and ocean literacy, but recently we have decided to tap into economic empowerment for local coastal communities. I am very excited to be here. Thank you.

Chair: Thank you.

Alisi Rabukawaqa: Bula vinaka. I am from Fiji. It is very early for us here, but it is also a pleasure to be a part of this. My background is in marine science. I currently work at the International Union for Conservation of Nature Oceania regional office as a marine projects officer. Our work focuses primarily on helping countries with marine spatial planning and implementing that work. Aside from this, I also help to co-ordinate our youth networks from our province in Bua and help with community issues around extractive industries as well as climate change



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relocation and disaster risk management. Those latter things I have mentioned are more of my voluntary work. Thank you for having me.

Chair: Alisi, thank you for joining us. I know it is horribly early in the morning with you, but if you are able to turn your volume up a little bit, that would help us here. Thank you ever so much.

Jeremy Raguain: Hello, everyone. I am from Seychelles. I am currently a masters of public administration in environmental science and policy candidate at the University of Columbia in New York. Previous to this I was an Alliance of Small Island States fellow serving the Seychelles mission to the UN as the climate change and ocean adviser and that built on my experience with the Seychelles Islands Foundation, which manages Seychelles' two UNESCO sites, working on invasive alien species, plastic pollution, climate change, as well as a lot of community initiatives, of which I was also volunteering with the Sustainable Ocean Alliance as well as the Global Shapers, which is an initiative of the World Economic Forum. It is a great pleasure to be here today. Thank you.

Q47 **Chair:** Thank you all. Kristal, in your experience, what is the importance of the marine ecosystem to local communities in SIDS; for example, in the Bahamas?

Kristal Ambrose: That is a great question. Thank you. As you know, within Caribbean SIDS especially we are intrinsically tied culturally and economically to our ocean ecosystems. It is the driver for our largest GDP, which comes from tourism, where tourists come from all over the world to enjoy our clean beaches. In addition to this, it is the source of subsistence and commercial fisheries for many coastal communities throughout the archipelagic chain within the Bahamas. This can be reflected also in other Caribbean SIDS and other Pacific island SIDS, and all SIDS in general.

In addition to this, when we think about the spiritual components of our ocean ecosystems, our health and safety, especially in the face of climate change and sea level rise, it is now a matter of life and sustenance for us, so it is very intrinsic and important to our culture.

Q48 **Chair:** Kristal, tell me a bit more about the spiritual.

Kristal Ambrose: In terms of the spiritual, it is a place of peace, of calm, for us in our culture. Even though we are predominantly Christian in the Bahamas at least, it is a place where we go for baptisms, to feel closer to God and to have that connection to nature.

Q49 **Chair:** What are the challenges that are currently facing the ocean ecosystem?

Kristal Ambrose: There are a plethora of challenges that are facing the ocean ecosystems within SIDS. We have the threat from climate change and sea level rise. For example, in the Bahamas and many other SIDS we are at zero metre sea levels. In 2019 the Bahamas had the strongest



storm on record hit us, Hurricane Dorian. With sea level rise, the strong storms also drive more debris on to our coastlines. In addition to climate change, we are seeing degradation of our coral reefs, this summer alone record-breaking temperatures, almost as high as 90° F. I'm sorry, I don't speak in Celsius today. We have been seeing mass coral bleaching, and in addition to coral bleaching we also now have spiny coral tissue loss disease that is plaguing our coral ecosystems. That is just one aspect of it, so that is part of the importance.

Q50 Chair: People talk about coral bleaching, but what is it and what is the impact? It is more than just losing its colour, isn't it?

Kristal Ambrose: Exactly. When we think about coral reefs, it is a living ecosystem. The coral is the animal, the coral polyp or the zooxanthellae that lives within this calcium carbonate structure. Corals are the home for fish, so the nurseries are there for predominant fish species like the Nassau grouper, which is very important commercially and ecologically for the Bahamian fisheries. It is where they dwell. It is where spiny lobsters dwell, which is another part of our fisheries.

In addition to this, coral are buffers for storms. When we have big storms come in, we have storm barrier and storm-breaking corals like staghorn corals and elkhorn corals, which have been decimated over the years just through coral disease and other natural disasters. Anthropogenic disasters have also led to their decline. We are looking at it from an ecological perspective, from an economic perspective, and also in terms of recreation and tourism and our connection again to the environment.

Q51 Chair: What impact is that having on the local community?

Kristal Ambrose: We are seeing a decline in fisheries, fishermen's catch per unit effort, which means they have to go out further. It is costing them more to try to catch fish. The inland reefs in the lagoons are the barrier reefs that are close to the sea. They are now decimated. Coral reefs are dying there. There are not a lot of fish populations there, so they have to go further out to find fish. They have to go into deeper water, which can get a little bit dangerous as well in terms of diving and dive safety. That is one aspect of the impact.

In addition to that, when we think about the ecological role that a lot of these fish species play on the coral reef, the near-shore reef especially is losing that. We are now having this phased shift where our coral reefs are going from coral-dominated reefs to algae-dominated reefs because there is this trophic cascade that is happening. Because fisheries are now declining, fishermen are focusing on other ecologically important species, like the parrotfish, for example, whose role is to graze on the reef and ensure that the algae levels stay low. What is happening now is that fishermen are catching these fish and, because that population is being taken from the food chain, they are having these algal blooms that happen and the coral reefs are now being smothered, essentially.



Q52 **Chair:** Is it too late to turn it around?

Kristal Ambrose: It is not too late, but we have to act now. We have to act now. In our coral environment in general we are under a lot of stress, a lot of anthropogenic stressors. The population is increasing. It is getting warmer and warmer every day and this is putting a lot of stress on our environmental systems. These are the systems that we rely on to live, literally, within SIDS. It is not too late but there is a lot of work that needs to be done.

Q53 **Chair:** We had a debate in Parliament this morning about loss and damage, and we particularly spoke about SIDS and the possibility that two of you could disappear within this century. You are saying that the Bahamas is at zero sea level. What does that feel like when we are hearing about global sea rises?

Kristal Ambrose: It is very scary. For me, being from the island, the thought of being a climate refugee, it gets more real every year. We saw this with Hurricane Dorian in 2019 when we had a storm surge of up to 30 or 40 feet that came into low-lying areas on the islands of Abaco and Grand Bahama, which are traditionally marsh islands. They took away the mangrove ecosystems and these are the barriers that protect us from storms. They converted those into homes and houses and development projects. What we are seeing is this need for development, especially from the developed world who come into these small island states. They dredge our seagrass beds, they dredge our mangrove ecosystems to put up hotels, and it is justified as, "We need the money. It is going to provide jobs and all these things", but it is also taking away critical ecological habitats that are needed for us to survive, especially during storms.

That reality of climate change and understanding that I could not have a home soon, it is very real, especially because I have been seeing the changes in my lifetime. I have been seeing the beaches erode. I have been seeing all the plastic that is washing up on to our coastline. I have seen my childhood beach transform from where I learned to swim with my father and now it has a hotel on it and there is this much beach space to play in. Then also the privatisation of beaches, that locals cannot even go to the beaches and enjoy them because of development, in addition to other ecological and anthropogenic factors. It is a very scary and harsh reality.

Chair: You get all the negatives and none of the positives.

Kristal Ambrose: Exactly.

Q54 **Chair:** If I came to Bridgetown and asked someone on the street if they were worried about sea level rises, what would they say? You are an activist, so you know and understand this. What is the average person's response likely to be?



Kristal Ambrose: Bridgetown is Barbados. In the Bahamas it is a little bit different, but I think it is the same across the region that there is this disconnect from what is really happening, based on the hierarchy of needs of the average person. We are so busy; we are conditioned in our region to serve the tourists. I always use this example where everyone at home uses this hashtag "I live where you vacation" but we don't really enjoy it. We do not really understand how our environment functions and how it protects us, saves us and sustains us. For the average person I feel like there is a disconnect between what is really happening. We see that the storms are happening but it may happen on one island and it may not affect us so we feel like, okay, we are in the clear, when that is not the case.

The changes are happening before our eyes, but because we are in communities especially that are disenfranchised, they may have a connection to the environment in the fact that they know that, "My fish for my dinner comes from the sea", but, "I have never actually been in the ocean to explore. I don't really understand the ecosystem and how it works and how it protects me because I am focused on feeding my family", which is a very real need in comparison to climate change, which is intangible. When we talk about plastic pollution, sometimes it is easier to understand because you can pick it up, you can go to the beach, you can see it, but climate change is hard for the average person to wrap their mind around.

Q55 **Theo Clarke:** Alisi, do different sections of the population, in your view, experience climate impacts differently? For example, women and girls, would that be different?

Alisi Rabukawaqa: We do experience those impacts differently. As I was listening to Kristal present, I started taking notes as well. When you think about fisheries, for example, one of the impacts of climate change that she was talking about, the loss of fisheries through coral bleaching and all these other impacts and factors, for women in particular and for men and for youth, when you think about how they use the ocean you can then see how it impacts them differently. Women are the ones who often go out to fish and to glean, so when these ecosystems are impacted they have to go out further to fish. They have to stay out for longer to fish and it impacts their homes and how they function. They have to leave home earlier. They come home later. There are a lot of social and physical things that factor into that as well.

For women it does impact them differently versus men, who often in most places where they rely mainly on fisheries would usually go out night fishing or go out diving. There are different ways that these issues impact them. That is correct, and that is something that we also see here at home.

Q56 **Theo Clarke:** Could you give me an example of how your communities are addressing that?



Alisi Rabukawaqa: Maybe I can give an example based on when Cyclone Winston hit in 2016. It was a category 5 cyclone, the first one of these larger cyclones that hit us. When we were assisting with disaster response—our province was one of those that was hit—one of the things that we found was that the intensity of the cyclone was to such an extent that it ripped out boulders and reefs and changed the reefscape, so to speak. Where you would normally have passages and places where fishermen and boats could travel to fish or areas that they knew they would normally fish, this entire landscape changed. There was no fish out there for the longest time, and these ecosystems take hundreds of years to grow and develop.

What had happened during the disaster response was we found that a lot of the things that were being prepared for these communities did not really cater to their needs nutritionally. For example, we found that the basics of probably rice, flour and sugar that were provided did not address the needs of protein for children, for babies, in schools. For most of the schools in our provinces in these outer areas, the women would go out and fish and come and provide food daily for the students. Part of our work, part of our advocacy, was to see how disaster response could be better planned or organised so that these needs were also met. That is a short-term solution, I also have to say, because that is how we can respond to a disaster, but longer term there also have to be other plans in place for how we can help our communities mitigate these issues.

Q57 **Nigel Mills:** Vinzealhar, how satisfied are you with how your own national Government are responding to these issues? Do you think they are doing a good job, or do you think they are way behind the curve?

Vinzealhar Nen: Thank you for the question. In terms of our local Government, they don't really prioritise oceans and prioritising the local communities. As Kristal was saying about climate refugees, Papua New Guinea is home to the first climate change refugees and that is in the Carteret Islands. It is the part of Papua New Guinea that is near the Solomon Islands. Given this fact, my Government do not really prioritise climate change, climate crisis or even ocean health and things to do with the ocean.

I think it comes from a place where they think there are other ways of generating income for the people rather than—how do I say this?—prioritising the needs of the people and the environment, putting the environment first. Instead they put other things as priorities. I really think our Government should be paying more attention to environmental issues, given that we are a small island state and we face most of the climate and nature crisis and its effects.

Q58 **Nigel Mills:** Do you think there are a lot of people who would like to see that change, or are most people happy with focusing on short-term economic and financial issues rather than long-term environmental ones?

Vinzealhar Nen: Sorry?



Nigel Mills: Do you think there are a lot of people who agree with you and would like to see that change, or do you think people are perhaps more worried about the economy and financial issues in the short term?

Vinzealhar Nen: The educated population, yes, they would agree with me. For the communities who live along the coastlines or in the rural centres of the country, they would feel that we are taking away from them, given that the poverty rates are quite high in the rural areas. Then if someone brings along a solution now for them to, say, have money or to enhance the life in one way or another, they would take it rather than having to think of the environment.

I say this because I come from a community that has recently had mining companies come in because we have had gold found on our land. We have been isolated from the rest of the world for so long and because of that, after the discovery of gold on our land, what happens is that the people, they decided to discard all our beliefs in the land and our connection to the land, and traditionally we have been connected to our land. They think of fast solutions. They think of fast ways of getting money and fast ways of surviving rather than thinking of the environment and what is going to happen to our children, because they are already suffering now and they want to see change now, even if it is short term.

Q59 **Kate Osamor:** Alisi, I wanted to come back to you and ask you some questions in relation to what my colleague was asking you. You said more women are—I was about to say fishermen; fisherpersons is maybe a better word. Could you give the Committee a bit more of a flavour of what damage is happening to the coral reefs if more fishermen and women are going out to fish? Is this causing overfishing of sorts, or is that not actually happening?

Alisi Rabukawaqa: I would probably like to backtrack a little bit on the whole fisheries conversation and first of all acknowledge that fisheries is one of our economic earners for the country. Prior to the issue of climate change taking on more of a precedence in the discussions of how our ecosystems are impacted, there has been a decline in inshore fisheries in Fiji. This leads to reef fishes being an important source of protein and livelihoods for communities.

Overharvesting has happened in the past and there have been measures to help mitigate that. However, with climate change what is happening is that it is impacting our oceans in more ways than we are able to understand at present; when we think about the impacts of ocean acidification, for example, how it changes the chemistry of the ocean, if I can explain it simply. When you think about all the different ocean resources that you can gather, you can glean, your shellfish, your crabs, your crustaceans, your fishes, all these also rely on the chemistry of the ocean to be able to grow to healthy sizes and to thrive. When that is impacted, it also impacts on their size, their growth and where they are. That impacts on communities that are going out to fish.



What I meant earlier was not that women fish more but that, in the places where women fish, you will find that more of these impacts are more visibly present in how the coral reefs have changed, where the fish are, how they move, so it takes longer for them to go out and fish. They also travel further to fish. This has an impact on other things in the community, as I mentioned with the cyclone. A lot of women go out to fish, and they come back to feed their families. They also have obligations in the schools where they come in and they cook lunches and they prepare meals. It leads to this issue of the availability of proper nutrition for children in communities. Sometimes it is not as direct but it is a chain of events that impact on these communities.

Q60 Kate Osamor: Thank you, Alisi, for expanding on your answer. In regards to the women, how is it affecting their health, their body physically, from working those long hours and looking after the family and the community?

Alisi Rabukawaqa: I wouldn't be able to say outright how it is affecting them based on data and research. I can just speak from when we have gone out to do our own research, not that I can quote anything right now, that it does have an impact on physical health, having to wake up earlier and work longer hours to provide for these needs. I also acknowledge that it is the same for men in the villages in our communities, too, because of the work they need to do or the more effort that needs to go into providing for needs.

Just to circle back and acknowledge something Kristal said earlier that resonated, a lot of these things are based on providing basic needs for families: food, water, paying the bills, sending kids to school, paying the fees. When these needs are not being met immediately, one of the things is that the conversations around conservation and protection of your oceans, protection of the environment, does not become a priority. It almost becomes a luxury to be able to do that. That is always a challenge in the communities where you want them to protect, you want them to do these things, but you first have to be able to bring them up to a level of comfort where they can then look beyond and address those things.

Another thing I wanted to add is that that does not take away from the fact that our communities also have this sense of stewardship. It is cultural and also spiritual to protect our oceans. It is a part of who we are and our identity, but in the context of now and in the world we are living in and the changes to the environment, it has made it difficult to balance all these different things.

Q61 Kate Osamor: Thank you so much. I have one more question for you, Alisi, for now. You made very clear the spiritual connections to the ocean and how communities, in essence, should not be blamed for putting family first and then, of course, if they can they will protect the ocean. What are international partnerships or international donors doing? Is anyone else stepping in to take up that burden?



Alisi Rabukawaqa: I could say yes and speak to the work that I do currently. In the global arena there have been commitments from countries to protect 30% of the oceans, so their exclusive economic zones. Part of the work that I do from IUCN is to help spatially map that out. If I could try to explain that simply, how you have urban planning or city planning, in the same way you look at your ocean and you plan it out in that way. It takes a lot of datasets, a lot of research working with a lot of different institutions globally, to gather all this different information, hundreds and hundreds of datasets that you lay out that tell you the shape of your ocean floor, that tell you what is in the water column, that give you a lot of information on the chemistry of the ocean, that tell you all these different bits of information as well as utilising local knowledge from these communities and from research scientists to say what are some important biodiversity areas or key biodiversity areas, what are the places where whales are migrating through our countries, where turtles are nesting, where birds are nesting when they are migrating through, which are the key places to protect and how much of it we need to protect. All these different ecosystems combine so that, when we identify this commitment, we are not just hitting a figure but ensuring that we protect places that are ecologically representative, that ensure that we are protecting places for our ecosystems and our biodiversity, to have a place to rest, to breathe and to thrive.

Added to that is another important component that is coming up, which is also considering the climate impacts, the climate modelling that is happening, which looks at the same areas 10, 20, 50 years from now—what will they look like and can we still protect those places and know that the species and biodiversity there is resilient to climate impacts?—and then helping to plan this out and advise countries and communities in turn that these may be the best places to protect, giving us the best chance for a future where we can still see and enjoy the same resources that we have had for generations.

Q62 **Mr Virendra Sharma:** Kristal, how has your work in grassroots activism interacted with actions taking place at the regional, national Government and international levels?

Kristal Ambrose: Thank you for your question. What we do through my organisation is bridge the gap between community and science, and we do this predominantly with young people. What we have been able to do with youth is to create a citizen science database of how plastic moves around beaches in the Bahamas across space and across timescales, so looking at different seasons and how plastic accumulates on beaches. Does the exposure, meaning, for example, the Atlantic Ocean beaches versus beaches in the Bahama Banks, which are very shallow—the Atlantic Ocean is more exposed—mean there is a difference in how debris accumulates there?

What we were able to do was calculate that data and take it to the Government. I and my students, who are as young as 10 years old,



worked with social scientists and did some surveys in the community to raise awareness of our plastic pollution and also to ask people if they would be interested in implementing a plastic ban, if that was something that they would support. We also worked with a local lawyer, who helped me and my students to draft a plan, a Bill, for what a plastic bag tax or a plastic bag ban would look like in the Bahamas. My students and I flew to the capital city of Nassau from the island of Eleuthera and met the Minister of the Environment and Natural Resources. We presented what we wanted and we petitioned for a plastics ban for the Bahamas. The petition was brought forward by the actions of the youth and community, and that ban was enacted in 2020.

How that now relates to the regional aspect of promoting policy is that it is also a regional goal based on CARICOM's St John's Declaration of 2019, which wanted Caribbean states to implement policies to reduce plastic pollution. That is just one example of the action taken.

Q63 **Chris Law:** Jeremy, I feel you have been left out of the loop while there has been so much information given, so I have a question for you. In your experience, how effective have international partnerships been in addressing the challenges facing ocean ecosystems?

Jeremy Raguain: I want to say to start that I echo a lot of the points that have been made by my fellow panel members. On international partnerships, I can speak from a very local and national level going into more of the international.

Starting with the local, I was pleased and grateful to be part of the Seychelles Islands Foundation's and the University of Oxford's Aldabra clean-up project, where we removed 25 metric tonnes of plastic pollution from a UNESCO world heritage site. It is three or four days by boat from the main islands. We not only removed what was there, we found that 83% by weight of what was there was fishing gear coming from largely the purse seine and semi-industrial fishing fleet coming from all over the Indian Ocean.

That research is very important for national policy but also for international policy as we go into things like the plastics treaty and the high seas treaty that I was part of. We understand exactly what is going on in our oceans. As a large ocean state, 99.7% of the Seychelles territory is ocean—it is about the size of South Africa—and we have decided to protect about 32% of it. We see this fishing gear come in. We see this other plastic pollution come in and it really impacts us, but when we were able to link up with the University of Oxford—and I know the UK high commission in the Seychelles was also instrumental in helping us—this is stuff that makes a big impact for a faraway atoll. The whole population got involved in what that means and today we see national action to keep on dealing with things like plastic pollution and looking into things like fishing gear.



At an international level, being an AOSIS fellow—an Alliance of Small Island States fellow—this is something that allowed me to link up with people from the Caribbean, the Pacific and the fellow Indian Ocean island states with whom I would never have had the chance to interact. Kristal was talking about losing access to the beach where her father taught her how to swim. That is exactly the memory and lived experience I have. We were able not only to come together in New York but also to speak to our truths, to speak to our realities in things like the high seas treaty and the climate change negotiations that are going on. Bringing us together through the AOSIS fellowship, which I believe the Italian Government are supporting quite strongly, and the whole AOSIS family, which I believe the UK is a very strong supporter of, is important for international collaboration at the level of multilateralism.

I can talk about the Commonwealth and a lot of things that are providing a lot of support, but the fact of the matter is that we are at a place of 1.1° to 1.2° C. At 1.5° C above pre-industrial levels, we lose 70% of corals. At 2° C, we lose 90% of corals. We have already lost 50% of the corals in the last 200 years. In my lifetime I have seen two coral-bleaching events, 1999-2000 and 2015-16. Others here have talked about this and I think that is the thing. How do we leverage these partnerships to build our resilience, to prevent further damage? Each 0.1° higher is cataclysmic for us.

You said two countries, two SIDS, might disappear within the century. It depends how you look at it. Some islands are sinking; some islands are uninhabitable because of climate change. The cost of living, all these things are being driven by things that people do not necessarily see day to day. I can think of one example in the Seychelles. In 1999, Port Victoria experienced a reduction of about 40% in tuna landings—we export that mostly to the EU—and 80% of our hard exports is tuna. What that means is that if there is less tuna leaving the country, containers are going back empty. The cost of living in most small island developing states is already high because of their remoteness and lack of economic scale, so that tiny margin we are living in is going to be pushed further and further.

For young people like me, everyday people who are already living in tight spaces, when you have the cost of living going up, driven by a lack of exports and, maybe, tourism and fisheries being affected, this is going to squeeze people out of these countries to find greener pastures for their livelihoods, so I just wanted to add that element. I think that partnerships that understand that, that understand that the liveable space for us on our islands is already very small, quite literally but also figuratively, understand how important it is to us and see the opportunities, of which there are many, to help us.

Q64 Chris Law: Thank you. That was very insightful. Vinzealhar, based on your work, I would like to know a little bit about the partnerships and how they engage. Are they equitable partnerships or are they from the



top down? How do you design and deliver programmes on ocean sustainability?

Vinzealhar Nen: In terms of partnership, we currently work to co-ordinate the activities of the Sustainable Ocean Alliance PNG Hub and also the 350 Pacific PNG Hub. These partnerships are good in terms of providing resources for us to carry out our work in the communities. For these communities, it is important to get the local people involved. In this way, they find value in these projects and programmes and they also take ownership of them in the sense that the initiatives become part of them and part of their livelihoods, and they tend to carry it out while then moving on to the next community.

We have run a couple of programmes over the last three years. We started off with reforestation programmes in small communities in PNG. We have also done an awareness programme for kids, because in PNG we do not have educational programmes that reach out to local communities about the importance of our oceans and the environment, so we try to intervene in a way where we get the younger generation on board so they are aware of what is going on. One of the main problems in Papua New Guinea and many other small island communities and small island states is that education is limited. In Papua New Guinea, 70% of our population is not educated. They are in rural areas, so it is important to get children engaged so they are aware of what is happening.

We are facing the effects of the climate crisis, and we are also exposed to decreasing ocean health. The problem is that people do not know words and labels to understand what is going on. Yes, they know there are no more fish in areas where there used to be fish, so our job is to localise information that has been presented, whether through research or through experiences from other communities, and then we try to localise it and help people to understand it. We go into the communities and get people to talk about it, rather than having bigger people go and talk to them. The communities feel a bit intimidated to participate or answer questions and all that, so we try to get to the community level. So far it is good in the sense that the communities are able to share with us their information.

Recently, we started a project that is helping to discover traditional conservation methods in these communities and learning more about our cultures because we realise that while we are trying to address ocean health and ocean literacy, there is one problem where with the climate crisis we are not just looking at communities being submerged due to rising sea levels, we are also looking at cultures being lost and languages being lost. As a result, we are trying to bring back some of the cultures that we had that helped to preserve the environment and that are important to our people. I hope that answers your question.

Chris Law: Quite extensively. Thank you, Vinzealhar.

Q65 **David Mundell:** Jeremy, can I ask you if in your view the UK



Government have recognised the challenges facing the ocean ecosystems of small island developing states in their development work?

Jeremy Raguain: Thank you for a tough question. I do appreciate it.

On the ground, I have seen a lot of action when it comes to maritime security in the Seychelles, social action as it is related to the environment, as it is related to people's health, and I think the UK is one of the Seychelles' top partners if not, historically speaking, a very key partner. When we find ourselves in negotiations or in the halls of the UN and elsewhere, it is one of those things where there are so many priorities going in and coming out of these large meetings, so maybe there is a bit of a gap there, I would say, if I could be so diplomatic. That is the trick. It is about how we as groupings of small island states of about 37 members interact with some of the permanent five members of the United Nations Security Council. How do we get support and maybe lend our voices a bit higher in certain situations?

I can definitely say that there are a lot of priorities on the table, but how high of a priority are small island developing states? I have to admit that across the board they are not as high as we would like. Otherwise, we would be seeing stronger language in things like the biodiversity beyond national jurisdiction treaty that would help. I think the UK finds itself in a unique position where it is one of the great powers, but it is obviously competing with many great powers, some that may be ideologically similar and others that might not be. This is a problem for small island states, always being able to find consistent and reliable partners. The UK is more in that category, but there are times that there are greater priorities, it seems. Maybe that is because there is a war in Europe, maybe because there are other domestic things going on, and in that moment we seem to fall off the radar in that sense.

For us, when we think about four years, 10 years in the future, there are promises that the UK has made that, if the UK does not fulfil them, countries like Seychelles suffer. It was brought up about loss and damage. We have to understand where we are finding support for something like a loss and damage fund and funding arrangements, where we are finding support for things like the Bridgetown initiative, making access to concessional financing, let alone grants, to countries more easily accessible and longer term, more favourable in that sense. There is the \$100 billion promise made by the collective west or developed countries to the developing countries in so many words. These are things that we are all looking at. We try to look at our partners to see where they fit into this, but who is loudest on this and who is doing the most on this is important to us. It goes back to what we do on the ground as well. We see things happening on the ground, but do we see it happening at the international level in the same way? That is where I stand on this.

Q66 **David Mundell:** That is very helpful. Alisi, what do you think the UK should prioritise in its engagement with small island developing states on ocean sustainability?



Alisi Rabukawaqa: Thank you for that question. In the discussions that we have had, one of the key priority areas when we are discussing ocean health and ocean sustainability is that we tend to sometimes overlook or forget that all things start from land. All the plastic pollution in the ocean that we discussed did not come from the ocean; it came from production on land, and the waste then went out into the ocean. I find that in our work a lot of the time we find ourselves in the marine space constantly coming back into the terrestrial space to look at a lot of the root causes of these issues. When we talk about climate change, it is fossil fuels, coal, oil and gas, and carbon emissions coming from factories that are on land. We are talking about energy and how we can transition in a just way.

As activists on climate change, as people from the Pacific, from SIDS, we understand that when we are asking to stop doing something there are economies, livelihoods and people who are reliant on it. We are not asking to just stop these things. We are asking for us to transition together, to invest in renewable energy, new ways of working, new ways of thinking. These are some of the things that I also like to bring to the table in oceans discussions that need to be prioritised because they come from land. We have to go back to the land to see where all these issues are.

A second one is that when we talk about ocean sea level rise and climate change, we tend to go to these extremes of relocation and we talk about islands disappearing. I also want to bring us to the intermediate current impacts of sea level rise, which include salt water intrusion. A lot of our communities are coastal and, with salt water intrusion, a lot of places where they currently farm and live are slowly being intruded on. It impacts on where they are living right now, immediately, so they need to look at other places, further in, to see where else they can farm. They are already making these movements and there is not a lot of discussion or support around how communities are being assisted through this with agriculture because the impacts of the ocean are also affecting those communities.

A third one is that, when we have discussions on relocation for SIDS, you will find that as you move across from the volcanic islands to the atolls, there are very different sentiments. The atoll nations are at zero; they are at sea level. They talk about sovereignty and being able to stay where they are. They do not want to move, so there has to be consideration for that versus where you have other bigger countries, like Fiji, Vanuatu, PNG, volcanic larger islands. They may be able to move inland. There may be some cultural traditional processes that I have stories on—I know time is limited—which allow us to move, but we are also losing our coastal areas in the process, where most people live. A lot of these nuances also need to be considered in the work.

Those are just three broad things that I want to share for consideration to prioritise when it comes to these discussions of work in SIDS.



David Mundell: Thank you. That was very helpful.

Q67 **Chair:** Alisi, it would be very interesting if you could write to us about those examples associated with moving.

Jeremy, you have spoken quite a bit about youth, and other panellists have reflected on that. I can guarantee that if you go to any school in the UK, climate change and our reluctance to address it will be one of the key issues that young people talk about. They are genuinely stressed about it. Do you find it is a generational thing in the SIDS themselves that older generations do not want to know or recognise the situation but that younger people do grasp the significance of what is happening?

Jeremy Raguain: Yes. Seychelles is one of those countries where most people live on granitic islands. We may have higher land, and that can give some people a false sense of security, but 90% of our critical infrastructure is at sea level and will be impacted by sea level rise. When we start thinking about my generation, so 30 and under, there is no doubt that this is causing climate anxiety. It goes back to things that people do not see. It is about cost of living. For those of us who are thinking, "Okay, we will be retiring in 2070", the house that we want to afford to live in will be underwater. Our investments, our lives, all these things, it will not be possible.

We will start asking ourselves more in the next decade or two decades what am I doing to ensure that I have a safety raft or some means to be a Seychellois outside of Seychelles. Maybe for the generations who are in their 50s and beyond it is less of a concern, but they wanted something for their kids. They wanted their culture to pass on. They sacrificed. We come from a history of being brought to these islands, in many cases against our will, and we are again being forced off these islands against our will. There is a historical repetition that I think is important to recognise. For me, I can definitely say that I have to think a lot about where my future is based on climate change.

The generation that I see in Seychelles is one that is keen to take on the challenge. Every time I see a new hotel development—this is not climate change but it is environmental—I always see people question it and ask for environmental impact assessments, ask for the science. Something great that I think the UK has done with Seychelles a lot is a history of conservation, a history of doing science. I see a lot of young people in Seychelles go to places like the University of Plymouth and come back and be marine biologists, and I think that is so important. I want to echo that that is the way in which the UK can empower young people, whether it is Chevening or other activities that are being done. I think that building on these experiences, young people are still not being listened to as much as they could be.

It goes back to a question asked of Vinzealhar as to whether Governments are doing enough. At the end of the day, for somewhere like Seychelles 8,000 people out of our population of 100,000 are



addicted to heroin. That is a pressing crisis in our country. How do our Government balance climate change with something like this? Where is the budgetary slack to allow more funding to go into maybe education or critical infrastructure adaptation? These are things that, over time, we find very depressing.

I don't think it is too late. I do think there are moments for us to build our resilience so that we can have a future in it, but as long as the G7, responsible for 55% of emissions, the G20 80%, as long as we don't see movement there, our Governments, our young people, we start making different plans. Leadership has to come from the most responsible historically, economically the most responsible in terms of having the access to these resources, having the access to the ears and pieces of the World Bank or IMF and all these tools that we have set up to reconstruct our world after devastation.

We are experiencing devastation, as Prime Minister Mia Mottley would say. Death, loss and damage has been experienced by our country and others. For me, that is the thing. Our young people, definitely under 30 but it goes into the 15-year-olds, I have so many conversations with people who ask, "What are we doing? How can I help? Is this over or are we starting?" We are very aware, and any time we are uncertain we ask a lot of the hard questions of our politicians and politicians from across the world. I hope that answers your question.

Chair: It does, and it also raises some very pertinent issues that we need to have as part of this inquiry, so thank you for bringing them forward.

Thank you all for raising those difficult questions and holding politicians to account. Sadly, prevention is never a priority, but it needs to be. Thank you all for what you are doing. We deeply appreciate the insight and the experience that you have brought to this inquiry. Please keep in touch and, if you do have more examples that you want us to know about, please write in. We would really appreciate them.

You are most welcome to stay and listen to the second session, because I think they will be responding to some of the things you have said. I am guessing that it is two in the morning for some of you, so if you want to go to bed I fully understand. Thank you ever so much for the commitment you have all made to be here with us today. Thank you, and good luck for Thursday.

Examination of witnesses

Witnesses: Christopher Pearce and Martin Chong.

[This evidence was taken by video conference]

Q68 **Chair:** We are joined by Christopher Pearce and Martin Chong. Martin, I



think you have quite a weak signal, so you are joining us with audio. Can you hear us, and could you introduce yourself and the work you do, please?

Martin Chong: A very good morning from Suva in Fiji. Thank you for the invitation to be part of this inquiry and to give evidence. I am the co-ordinator of the Pacific-European Union Marine Partnership Programme that is being implemented here in the Pacific across 15 countries in the region. The programme promotes sustainable management and sound ocean governance through a holistic and multifactorial approach. It also contributes to social, economic and environmental development in this region, as well as biodiversity protection and promoting a sustainable use of fisheries and other marine resources.

Chair: Thank you, Martin. I know you are joining us from Fiji but not all your words are joining alongside you, so we will try to improve the signal.

Christopher, thank you for being here in person. It is a lot easier when you are based in the UK. Could you introduce yourself and the work you do, please?

Christopher Pearce: It is a pleasure to be here. Good afternoon. I am from the National Oceanography Centre in Southampton, which I will refer to as the NOC for the rest of the afternoon. The NOC is an independent research organisation specialising in researching the depth and breadth of the global oceans. We operate on behalf of the Natural Environment Research Council, NERC, the UK's research vessels and Europe's largest fleet of autonomous underwater and surface vehicles. Our research spans the full breadth and depth of marine science, including socio-oceanography, which looks at the interactions in human use of the oceans. Personally, I led the NOC's contributions to the Commonwealth Marine Economies programme, the CME programme, which was led and managed by the FCDO and operated for six years, ending a couple of years ago now.

Q69 **Chair:** Thank you very much. You have heard some horrific examples of what life on some of the SIDS is like right now and projections of how it is going to be in the next few years, if not until the end of the century. Are there particular points that you want to draw the Committee's attention to around threats to the ecosystem?

Christopher Pearce: Absolutely. Although you were fortunate to be joined by four excellent panellists, their voices are not alone. I have heard and encountered exactly the same experiences in many of the countries I have been fortunate to visit through the CME programme. It is an existential issue that they and other SIDS are all facing.

There are many points I could pick up on in this response, but I know time is pressing, so I will perhaps emphasise one of the key issues. The challenges facing many of the populations in these SIDS are the priorities to live, to get protein, to get their diets, to get their income, and ensuring



that they have the resource or the access to the ocean is essential for that. Ensuring that they are doing that in a safe and sustainable manner is perhaps lower down the pecking order when it comes to feeding their children. A lot of the SIDS strategy is about encouraging climate resilience, encouraging and supporting oceans and their ecosystems, but first and foremost the priority is for these people, these families, to live and thrive and survive. You mentioned in the closing statement to the first session that that protection aspect is harder and falls down the pecking order, and that is certainly something that needs to be addressed.

Q70 **Chair:** Who should address it?

Christopher Pearce: The UK or international partners, the SIDS themselves. There are a plethora of international agencies and support mechanisms for providing that assistance. We have to recognise that the SIDS countries know what they need. There are many development strategies, many plans, regional bodies that have helped to prioritise and identify the issues that need to be addressed. What they may struggle with and need support in having access to is the capabilities, the resource, the mechanisms to generate the knowledge by which to formulate the management plans, the structures, to have the capacity to build the facilities that they need to enact those management plans.

Q71 **Chair:** I think it was Alisi who said that we are talking about oceans but the ocean's problems all start on land. Is that an accurate assessment?

Christopher Pearce: Yes. We as a species, humanity, live on the oceans and we are responsible for many of the root causes of climate change, which is emissions of fossil fuels and carbon dioxide. I think that, existentially, climate change is the principal cause and threat to many SIDS but it is not always in the ways that we hear about and tend to associate with it. Sea level rise and desalinisation, all these aspects are key threats but there are also changes that we may not associate with impacting the oceans. For example, I have been in Belize where we did a lot of work looking at the impacts of changing land use, where you have deforestation as in many countries and tropics, making way for changes in agricultural practice and development of land. All that encourages or changes the way of nutrient runoff, the release of carbon into nearshore coastal environments. That can indirectly or directly impact the health of the coral reefs and the associated ecosystems.

Where we try to monitor those changes we can install river monitoring networks. We can monitor the riverine plumes and how they interact with the nearshore environments, but that is always reliant on having support for those countries to maintain those processes. Ensuring the longevity of those monitoring networks is fundamental. We need to have long-lasting support, otherwise beyond the end of a programme you are no longer monitoring those networks and the knowledge that you could gain from those networks is lost.



Q72 **Chair:** With limited resources, is it right to spread them across land and sea, or should we be focusing on the causes rather than the outcomes?

Christopher Pearce: In the context of SIDS, as we have heard throughout this inquiry, they are large ocean states. Their focus and their priorities sit within the ocean environment, so that is where priorities need to be allocated for the safe and sustainable development of their ecosystems. In that context, we need to emphasise and recognise the role that the blue economy will have in enabling these countries to both generate income—we have heard lots of different ways of doing that—and generate and ensure their longevity and livelihoods for many years to come.

Q73 **Theo Clarke:** Martin, what do you think are the most important actions that the national Governments of SIDS are taking domestically to address the challenges we have just been discussing?

Martin Chong: Thank you for the question. What the SIDS Governments are trying to do is to implement these global commitments at a national level, and organisations like SPC, which I work for, the Pacific community, along with the Pacific Islands Forum secretariat, they provide that bridge between the global level and the national level. All the SIDS Governments, certainly in the Pacific, are working towards developing national oceans policies, for example, that take that holistic view of oceans in terms of ocean health, ocean science and the various other pillars.

Our organisations, the regional organisations like SPC, which focuses on science and technology and provides that service to the national Governments, we are helping those Governments to develop and implement these policies, such as the national oceans policy, for example, of which we have seven countries in the Pacific that have a national oceans policy. A couple of weeks ago we had a regional ocean policy dialogue to reflect on what the region is doing in this space. There is still a significant amount of work that needs to be done, at both the national and regional level, in order to meet our global commitments.

Q74 **Theo Clarke:** What do you think are the key actions being taken at both the regional and global level to address these challenges? It would be good if you could give some specific examples.

Martin Chong: At the regional level, we have the 2050 strategy for a blue Pacific continent. That is being socialised now and it gives the region guidance on the blue Pacific continent. This is the 2050 strategy for the blue Pacific continent, so it is looking quite a long way ahead in that sense. For the Pacific region that would be the key driving document going forward.

Then, within the organisations in the region, we have our implementation strategies and business plans that support the priorities from our SIDS member countries to implement these at the regional and national level. Programmes like the PEUMP programme that I work on cut across all



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those. We look at oceanic fisheries science, which is important in the sense that 55% of the world's tuna comes out of the Pacific. That is a huge amount of economic benefit. The PEUMP programme provides the scientific advice to the Western and Central Pacific Fisheries Commission in terms of harvest strategies and so on. Tuna is the backbone of the economies here in the Pacific. There is a £4.6 billion annual catch landed value, 24,000 jobs in the region across this sector. It is one of the more healthy oceans in terms of tuna fisheries, for example.

Q75 Chair: Martin, how effective has the 2014 SAMOA pathway been in driving efforts to address the threats to ocean ecosystems in SIDS?

Martin Chong: The delivery and success of the pathway, I would say, is fair. The challenge we face in the oceans and for SIDS is that it is as if every year it continues to deteriorate, as we notice here on the ground in the region. The pathway and the 2050 strategy, et cetera, are important guiding elements for us to work on. I probably do not have too much more to add on the SAMOA pathway, but I can offer to write in with a more detailed response.

Chair: Thank you. We would appreciate that.

Q76 Kate Osamor: Martin, in regard to the action plans that you work on with the national Governments, do you work at all with the tourism board? Do you have any insight on how tourists, hotels and hoteliers are working to ensure that tourists respect the islands when they visit and have an understanding of how they can respect the coral reefs, et cetera?

Martin Chong: Thank you for the question. Unfortunately, we do not work directly with the tourism board but, on the previous panel, my colleague Alisi talked about marine spatial planning. That work on the use of ocean resources and land-based resources will cross over into the tourism sector. That spatial planning will cover the usage, and the idea is to provide guidance on co-usage and in some cases things like no-take areas for fishing, for example, to preserve community fisheries.

The tourism aspect is an important part of the sustainability of oceans, in my view. It is part of the ocean economy. That is the link and the connection. The organisation I work for is looking across flagships of that nature that connect all the different elements of ocean use; that is ocean health, science, governance, traditional knowledge, ocean finance and ocean economy, et cetera.

Q77 Nigel Mills: Christopher, I want to ask you about the UK Government's performance and, I guess, achievements in this area. We have set out ocean biodiversity as a key area of focus in the SIDS strategy, but how well are we working with the SIDS on this issue? How effective have our interventions been?

Christopher Pearce: The UK Government and the UK have strong historical ties with both the Caribbean and Pacific regions, and the Indian Ocean. We have been able to work with many of those countries



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bilaterally, effectively conducting direct support measures and supporting regional activities through programmes primarily funded through the blue planet fund at present, including the COAST and forthcoming Sustainable Blue Economies programme that have been announced, but also previously through the Commonwealth Marine Economies programme.

As to their effectiveness, they have been, in my view, highly effective because they have been co-developed. To pick out the CME programme, all the activities were conducted following a request and engagement with a ministerial or local institution within the countries that we were working with. As such, they had that buy-in, ensuring the prolonged implementation of the capacity being provided or the knowledge, training or skills that were being provided through the programme. In that respect, we have been working with them very well.

Obviously, there is always more that can be done in terms of greater engagement with regional bodies, and Martin has talked to SPC. Exactly the same applies to the Caribbean where you have OECS, CARICOM and other bodies, which provide that overarching co-ordination.

Q78 Nigel Mills: Do you think we are a pretty good partner for this, or do you think there is anybody else? If you were running one of these countries, would you choose to partner with the UK or would you be dreaming of somebody else in this situation?

Christopher Pearce: For providing access to marine scientific knowledge, marine scientific observational capabilities, we are one of the world leaders in terms of our scientific capabilities. We have been pioneering and advancing autonomous technologies. We have to recognise that SIDS have a plethora of challenges, many of which we have heard about already this afternoon and in your previous session. They do not have the capacity or the resource to invest in their own oceanographic research vessels, for example. The requirements they have are much more focused capacity requirements. As such, they do not have the ability to go out and conduct the surveys. They are stewards for, as it says in the strategy, 30% of the global oceans. To date globally we have only mapped 25% of the global oceans. SIDS have that responsibility and desire to sustainably manage their environment, but they do not have the capabilities to do so. The UK, which has that capability and is constantly pioneering new technologies and new approaches that could be used to enable them to monitor them in a cost-effective manner, can partner with them in that.

To take an example of the work we have done in Belize, the Mesoamerican barrier reef is the second longest reef in the world, but prior to the CME intervention there was, to my knowledge, no long-term monitoring station for ocean acidification or other essential ocean variables such as temperature and salinity. We were able to give them that capability to start monitoring these long-term changes on this reef.



This is something where the UK has the technologies. We have been pioneering these technologies and we can provide it to the countries where it is relevant. Again, it requires that buy-in and collaboration with them to then say, "We have the interest, we have the capabilities and this is the need from us." There is no point in us giving them that capability if it is not required.

Q79 Kate Osamor: Christopher, would you say that the UK Government's changes to ODA spending have impacted on the work that you do at NOC?

Christopher Pearce: We need to recognise that SIDS are defined in the UN terminology in slightly different ways. Again, you heard in the previous session about the way in which it transcends just ODA requirements. For all large ocean states, the financial aspect of it does not stop their eligibility. What I am trying to say is where the ODA eligibility requirements end does not mean that ocean problems stop.

There is always a need to support them to greater extents. There is a huge capacity need, and I am not best placed to talk about the financial gaps that they have. However, the challenges we have in delivering that aid are often further limited by the fact we are operating within an ODA cap, and that is the primary route for providing that support, but the boundaries that the SIDS require do not stop with ODA eligibility.

Q80 Kate Osamor: So you use funding from another pot to be able to continue doing the work that you are doing?

Christopher Pearce: Where possible. UKRI, UK Research and Innovation, and the Natural Environment Research Council in particular provide academic funding for continuing academic collaborations and understanding the marine scientific underpinning questions, and we can resolve them. We are looking at volcanic eruptions and the impact of the Hunga eruption in Tonga. That has been supported in part through the Natural Environment Research Council and through the GCRF funding route. There are other routes from which we can provide some of that knowledge and work with partners, but primarily and certainly in terms of the larger sums the UK Government's spending for CME programmes and other activities is primarily directed through ODA channels.

Q81 Kate Osamor: So the changes to ODA have impacted on the Commonwealth Marine Economies programme?

Christopher Pearce: No. The Commonwealth Marine Economies programme, to my knowledge, was not curtailed or limited as a function of the cut in ODA spend, but there was a challenge with the CME programme in that it had funding operating on annual cycles. To reiterate, that is not an effective route to develop long-lasting programmes when we as implementers or the country partners we are looking to work with do not know at what point it is going to end.



Ultimately, the only way we can deliver effective support for any of these countries is to develop a long-lasting programme. I know that in the Pacific region they have buddy systems with New Zealand, Australia and other countries, and I think that having a continued presence, a continued route for enabling that association and affiliation, is fundamental for developing those connections. We cannot parachute in and expect to have the relationships, particularly in countries like Fiji—Martin would be better placed to answer—where many of the implementation mechanisms require approval from tribal chiefs or from local management authorities, whose views may not necessarily be directly echoed through the national Governments with which we may be interacting. You have to be talking on the ground to better understand the requirements in order to facilitate effective capacity building.

Q82 Kate Osamor: Thank you. Lastly, how would you judge the UK Government's commitment in advocating for international action on ocean sustainability?

Christopher Pearce: The UK has nicely articulated strategies. We have put these things in writing. Ultimately, we need to provide more support. It is something that we have the capability to do. We have access to the infrastructure. Developing safe and sustainable blue economies is something that we are looking to deliver through the blue planet fund, but as I said, I think that it is something we need to view as a longer-term strategy from the UK perspective and not just a short-term four or five-year strategy. This has to be a long-lasting effort on behalf of the UK. That is something I can perhaps embellish further in a written response.

Kate Osamor: Yes, please do. We would appreciate that. Thank you.

Q83 Chair: Christopher, you led on the NOC's project, the Commonwealth Marine Economies programme, which the UK Government funded. I think it was—I am looking at my notes—17 Commonwealth small island developing states. Was the interest and engagement the same for all those 17 states? What happened when the project finished? Did they take on responsibility to continue the projects?

Christopher Pearce: Yes. There was huge interest. Certainly in the initial stage of the programme, we were able to go out to each region, to Suva, to Seychelles and to the Caribbean region all the way down to Jamaica, to engage regionally with all the bodies. As delivery partners, the NOC in collaboration with CEFAS and UK Hydrographic Office, UKHO, were able to go out there and talk to the key Ministries, implementers and regional bodies to fully understand their considerations and requirements and where the UK and we as agencies were best positioned to provide them with support.

The challenge with the CME programme, as I have alluded to, was the funding cycles. There was always a degree of optimism that we would be able to continue to deliver the programme and that was particularly



supported through the third and fourth years of the programme where we had two years of funding associated with our presidency of CHOGM. That was highly effective because we could view beyond that single-year funding remit.

On the challenges of closing down the programme, it was impacted by the pandemic, which obviously limited face-to-face interaction, but there was still significant engagement through online training events and through remote delivery. That points to a high degree of engagement with the communities and the bodies that were receiving the capacity building or the training that was being provided.

As to the ongoing implementation and commitment from the bodies, I think it was highly effective, primarily because they were often looking to use the information as part of their development of strategies and plans. To take an example, in Belize we worked very closely with the Coastal Zone Management Authority and Institute, which was in the process of developing its new coastal zone management plan. We were able to give them the information and data that they could then directly incorporate into their plans and strategies.

As I have mentioned previously on the land use change question, we have worked with other partners in Belize where their inability to implement was not through lack of desire, it was just through access to funds to provide resources to pay for petrol for cars to go out and monitor riverine networks. Keeping the infrastructure going can be a real challenge if they do not have lasting funds to support that.

Q84 Chair: Of the 17, how many would you say are still actively engaged in the project?

Christopher Pearce: The project is now finished, unfortunately. The funding has been wrapped up and it will, I hope, be re-enacted through the Sustainable Blue Economies programme. I think everyone is still engaged, and we talk to people. We still have our autonomous infrastructure that is operating in Belize.

Chair: It is not about the project. I thought the project was to develop sustainable, resilient, integrated marine economies, so how many of those 17 do you see have implemented—

Christopher Pearce: In terms of the infrastructure that has been implemented, I can talk to the NOC's experiences working with Dominica, St Lucia and Belize, where we have installed tide gauges. They have continued to operate and continue to be used. St Lucia is an excellent example. They independently, on the back of the tide gauge we installed through the CME programme, went to the World Bank, got through the disaster vulnerability reduction programme funding for another three tide gauges, which were then installed at different points around the coastline. The CME programme, supported by the UK Government, was a leapfrog into other funding.



Chair: You were a catalyst.

Christopher Pearce: As to striving for that impact, it is still very hard to manage and to quantify, given that there are other pressures and stressors. The fact that we are seeing the data being used to generate and implement their marine economy plans, their future strategies, is very important. In terms of some of the ocean observing infrastructure that we have provided and installed, we need to recognise that some of this needs to be running for decades, which are the timeframes over which we might start to see the impacts of ocean acidification beyond diurnal changes. Those are the timeframes for which we need to be supporting this infrastructure to be able to say that this is making a difference in terms of how these strategies are being implemented.

Q85 **Chair:** I guess the bottom-line question—Vinzealhar raised this—is how much local ownership do you think there is of these projects, and how much do you think it was you going in and saying, “Let’s do this project”?

Christopher Pearce: To be clear, all the projects were locally defined. We did not go in at any point and say, “This is what we want to do.” Every project, every activity that we delivered through the CME programme—and the same pathway is being implemented through the Sustainable Blue Economies programme—is defined by the stakeholders, the countries themselves, in alignment with their existing plans or regional strategies. That is essential to their effective delivery because if we do it otherwise, just going for the photo shot, the infrastructure could be left on the side to rust. I have seen that at first hand, not through our strategies but through previous interventions. That is just a reflection of the fact that people do not have the capability to change broken parts or to service it appropriately or to redeploy once it has been recovered.

In all cases there has been ownership and a desire, but again the desire and the intent and the wish to implement can be limited by knowledge, capacities and brain drain, where highly qualified staff may move on to other countries. You need to maintain that level of engagement and that level of training with new members of staff in order that the facilities that we are providing are adequate and can continue to be used by the people there.

Q86 **Chair:** Martin, I think your project is a joint EU-Pacific programme for supporting sustainable ocean and coastal governance. If I am right, you are working with 15 Pacific SIDS. Could I ask the same question to you? How much engagement is there with the project? Did some Governments accept it more readily than others? How are you doing on translating it into local ownership?

Martin Chong: Thank you for the question. Yes, I think there is this view that sometimes there are too many projects happening at national level, and that has an impact on the nation’s capacity to absorb, implement and sustain that intervention. However, if it is looked at from just the pure



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project perspective, it is a finite time, start and end, and then the expertise disappears, et cetera.

What we are doing on this programme is to work across the whole ocean area. We are working in the 15 countries, including Timor-Leste I should add to that. We are working with the Pacific community that looks after oceanic fisheries science and coastal fisheries science. We also work with the Forum Fisheries Agency, which is looking after sustainable tuna fisheries, helping countries to access markets for their tuna products and helping them to monitor their exclusive economic zones in terms of challenges to tuna fisheries, like the threat of illegal, unregulated and unreported fishing that happens in the region, which draws hundreds of millions of dollars of tuna out of the region. We are working with the Secretariat of the Pacific Regional Environment Programme, SPREP. That is based out of Samoa. It is looking at sustainable utilisation of coastal and marine biodiversity. We are also working with the University of the South Pacific on capacity building and research, again across the Pacific.

In that sense, these organisations have membership from the Pacific SIDS. Their priorities are highlighted through our organisations and, in terms of ownership, SPC is considered as the extended arm of government, although we are apolitical as such. We provide those services to the Pacific SIDS because they do not have the capacity to self-provide. Regional organisations like SPC, SPREP and FFA are there to bridge and to work with our member countries to implement interventions on their various priorities.

Of course, across all that, one of the things this programme is doing includes the gender and social inclusion element. As you will have heard from the previous panel, the participation and inclusion of women in ocean-type activities is still very much a challenge in the region, which this programme is trying to shed light on. We are working with our Governments. The Governments are taking ownership of that. We are working with the fisheries Ministries on assessing gender in the coastal fisheries programmes, for example.

That is, from my perspective, one approach to garner the buy-in that you need from Government but also not to forget the civil society elements within that. On the coastal fisheries side of things, I would like to add here that SPC conducts a heads of fisheries meeting once a year. That is attended by permanent secretaries of the fisheries agencies in the region. One aspect on community-based fisheries management was never included in that, but it is an essential voice to complete the circle as such from Government to the community. Down at the community level things are much different and more challenging, especially in the area of gender and social inclusion and the recognition of the participation and input of women in fisheries. There are gaps in that data that we are trying to improve. We are assisting in research and surveys. We are working very closely with Governments and their Ministries in order to plug some of these gaps.



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Chair: Thank you both very much and thank you, Committee members, for your time today. We really appreciate it. This is an ongoing inquiry so if either of you have additional stuff that you would like to feed in, we would be very grateful for it. Thank you for what you both do on a daily basis. It is much needed and all power to you. This session is now closed.