Members present:

Principal Committee Members:

*Chairperson:* Hon. Gervais Henrie MNA (Seychelles)  
Hon. David Agius (Malta)  
Mr David Earl (Alderney)  
H.E. Hon. Sir Ratu Epeli Nailatikau, CF, LVO, OBE (Mil), KStJ, CSM, MSD (Fiji) (Observer)  
Hon. Kye Rymer MHA (British Virgin Islands)  
Hon. Tamaiva Tuavera MP (Cook Islands)  
Deputy Robert Ward (Jersey)

Other Committee Members:

Hon. Joy Burch MLA (Australian Capital Territory, Australia)  
Sen. Dr Lynette P Holder (Barbados)  
Hon. Niki Rattle (Chairperson of the Small Branches)(Cook Islands)  
Tim Baker MHK (Isle of Man)  
Bill Shimmins MHK (Isle of Man)  
Deputy Inna Gardiner (Jersey)  
Hon. Jean-Claude Micallef (Malta)  
Jeff Collins MLA (Northern Territory, Australia)  
Sandra Nelson MLA (Northern Territory, Australia)  
Hon. Hamizan bin Hassan MLA (Perlis, Malaysia)  
Hon. Josephine Connolly MHA (Turks and Caicos)

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Inquiry Three: Environmental Governance  50
The Committee sat at 11.30 a.m.  
in The Chamber of the Parliament of Malta

[HON. GERVAIS HENRIE MNA in the Chair]

Procedural

The Chairperson (Hon. Gervais Henrie MNA): Once again, a very warm welcome to everyone present. Welcome to this Committee evidence on the topic of Environmental Governance. This is a meeting where we are gathering facts and evidence from a panel of four witnesses this morning.

I would like to give the witnesses four to five minutes to make an introductory remark, if you have prepared for that. Please introduce yourself before you start, and then the floor will be open for Committee Members to direct questions to you that will help us in compiling a report on the issue of Environmental Governance.

RENEWABLE ENERGY AND ENERGY INDEPENDENCE;  
OCEAN MANAGEMENT;  
CLIMATE ACTION CHANGES (SDG13) IMPACTING FOOD SECURITY (SDG2)

EVIDENCE OF
Ing. Anne Marie Grech, Senior Policy Officer, Energy and Water Agency, Malta;  
Prof. Aldo Drago, Head of Physical Oceanography Research Group, University of Malta;  
Vernon Barrett, International Development Specialist, Jamaica;  
Jack Hardcastle, Programmes Assistant, Commonwealth Parliamentary Association

QS2. The Chairperson: So I will start with the lady on my left. Thank you.

Ing. Anne Marie Grech: Good morning, I am Anne Marie Grech and I work with the Energy and Water Agency, which is the technical arm of the Ministry for Energy and Water. Our role is essentially that of drafting and developing policy for energy and water with the aim of ensuring that energy is affordable, sustainable and secure within the Maltese islands.

We mainly deal with both energy efficiency and renewables. Energy efficiency is very important in the sense that the energy which is not used is the cleanest, the most secure and the most affordable first of all. So energy efficiency is an energy source in itself. With technology you can get to leaner consumption but eventually there is a limit. So that is when renewable energy kicks in to support.

So I think we need a combination of the two, both energy efficiency policies and renewable energy policies to get the affordability, the secure and sustainable energy.
Inquiry Three: Environmental Governance

The Chairperson: Thank you very much for your opening remarks. Professor.

Prof. Aldo Drago: Good morning, I come from the University of Malta. Actually I have been leading for several years now a research group on oceanography and our main activity regards operational oceanography. This in essence means making measurements not only for research but to be useful to the stakeholders. This has brought us in contact not only with local stakeholders but also with regional and international. So we are very much involved with the Global Ocean Observing System (GOOS), with the European observing network, and we support ... This also happens in Malta.

This also requires a large investment, but we also try to make the case that this investment is essential in many aspects, but mainly because we need to monitor the environment. We cannot just speak about what is happening in the environment in general without knowledge and data available to assess in reality what is happening and how we can measure changes, but also because we believe – and this is the trend of belief worldwide ... If you look at the OECD report on 'The Ocean Economy in 2030', there is a great emphasis on how the marine sector will evolve in the coming decade and the countries need to be ready to take these challenges, so that their marine economic sector can also reach excellence. It is essential that this happens worldwide, not only in a few nations but is shared by all the countries.

The Chairperson: Thank you.

Mr Jack Hardcastle: Good morning, Hon. Members, thank you, Mr Chair.

My name is Jack Hardcastle. I am sure, or at least I hope, that you are all aware that I am part of the CPA team here, facilitating this workshop. I am here speaking as a witness today primarily through the lens of the Climate Change Toolkit that I produced as part of the CPA and also from the viewpoint of the CPA and how the CPA as a network, and the Small Branches Network, can strengthen and help to bring together small branch and small state parliamentarians to combat common challenges such as climate change.

So just to briefly go over the toolkit and why it came about: I think that with climate change, and climate change action, it can often seem as the purview of governments. Parliamentarians can often maybe sit back and think, ‘Well, there’s not much we can do as parliamentarians. This is government action that’s needed’, or even the international community – the big powers – they are the ones most responsible for climate change. I hope that this toolkit can be an accessible guide that parliamentarians can pick up and take actionable steps themselves and together as groups to work through climate change in their own jurisdictions and internationally as well.

So just to mention briefly the contents of the toolkit, we have three broad sections that parliamentarians can take alone, as separate guides or can be used as a process. So they can explore the information around climate change, how it impacts small states, why small states are particularly vulnerable or a distinct case in climate change, and it particularly points towards the science and the data that they can use in their own work.

Then it also looks to mainstream the work of a parliamentarian, so looking at the broad functions of oversight, accountability, representation, representing constituencies and their constituents, and also legislating as well, because parliamentarians can also act as lawmakers and legislate, essentially.

Finally, it looks at the support and the co-operation that parliamentarians from small states and small branches can get in making progress in climate change, so working on the international stage to work in international climate negotiations, to accessing climate finance as well. So I hope I can give some more information upon helping you parliamentarians with practical steps and tips to working in climate change.

Thank you.
Mr Vernon Barrett: Good morning, Hon. Members.

In the UK today, 2020, 8.4 million people are struggling to afford to eat; 4.7 million of these people live in what is called ‘severely food insecure homes’, and what is that? That means that the food intake is greatly reduced and children regularly experience physical sensations of hunger. This is the fifth largest economy in the world, in 2020. So food insecurity takes many forms.

My name is Vernon Barrett, I am an independent consultant. I would like to thank you for the opportunity to share with you my experiences that I have gathered from about 10 years’ working with small states in the Caribbean primarily, and also working with the UN Food and Agriculture Organization (FAO) in Rome on this topic.

According to the FAO, climate change is more than a risk; it is a challenge, it is a reality. We need to understand as a world, everybody, what it is that is going on, and what is likely to happen going forward in the future. I want to share a bit of that with you now.

What we know will happen for sure – barring some major Armageddon-type scenario – is that the world is going to move from 7 billion to close to 10 billion by 2050. So in 30 years, there are going to be close to 10 billion people on the planet and now we have 7 billion.

That is about a 40% increase in people; but actually the demand for food is projected to go to 70% more, because people’s eating habits are going to change; you have wealthy people in the Far East in particular. The demand for food is going to increase substantially.

Combined with that, we have urban migration: about 70% of people will live in cities and that will create a social disruption to agricultural production, which is traditionally in the rural areas. So you can image how that will work.

Also we have, thanks to environmental degradation, decline in agricultural productivity in the field – not only on land, but also in the sea. So for example, in the Caribbean, they are expending twice the ‘effort’ – as it is termed – to go fishing and they are taking in 25% less fish than they did 30 years ago. So twice the effort, 25% less fish: we can do the maths.

Then you add to this mix of known trends, climate change, which is throwing out some unknowns. What we can see and from work in different countries – my base is in the Caribbean primarily – we know that the trend for waterfall rain is declining so there are droughts, periodic and long term, and there are floods, extreme events and so on. People in the room who live in the Caribbean region will know what I am talking about.

Now, FAO is the custodian of this SDG2 – which is what we term it as, in the domain. SDGs are recommended because the framework allows the common sharing of understanding of issues like this. It provides goals, indicators and parameters. SDG2, although it is called ‘no hunger’ as the headline title, it is actually spelled out into three sections: food security, which I have just referenced earlier, and what is food insecurity; improved nutrition; and sustainable agriculture. So those are the three aspects of Zero Hunger, SDG2 – I would encourage people to become familiar with the SDG2 structure. There are eight targets and several indicators beneath them.

All countries of the world have signed up to this SDG. This is called the 2030 Agenda. So the countries that you belong to, or are responsible for your jurisdiction in the long run ultimately, have signed to this and have targets to meet by 2030, which is 10 years away.

I will not go through details of that, but let me just conclude the introduction by saying that small jurisdictions such as yourselves do share similar trends and issues related to food security and food in general, agriculture – although you actually do come from very diverse cross-sections, so I have to be careful here – but importation of food, I would argue probably is a key component. Most Caribbean islands import over 50% of their food and not only that, but the high cost of food for the people living there, the average person in the Caribbean spends more than 50% of their disposable income on buying food. Of course, that is subject to exchange rate fluctuations of their currencies.

Then there are vulnerable food systems you probably have as small islands: you have an issue with logistics. Most of you are small islands; not all, granted. But you have to get the food to and
from the island and then you have things such as diet, which is another aspect of food and nutrition.

So today hopefully, in the course of discussion that we have, we can tease out some of the issues that are there. There are solutions, it is not all grim, but I would give you the few highlight points: the thinking, going forward, to face this issue is that we should grow our own food, more of it – you probably cannot grow all that you need, but you should certainly grow more of it. So grow what you eat and eat what you grow. It is a very simple philosophy.

Finally, the future of farming is gardening. We all have a role to play in how we go about getting our food. We talked about this yesterday, we will probably recap later: the responsibility of the individual. What is your responsibility in your role to ensure that your people have enough to eat – not just the availability of food, but the affordability of food going forward into the future?

Thank you.

The Chairperson: Thank you very much, Mr Barrett. That was exactly five minutes.

So now we are going to open the floor to the Committee Members to ask questions. So be mindful that the topic that we are exploring here this morning is Environmental Governance, and there are three topics as part of this: renewable energy and energy independence, which is Ms Grech’s area of expertise; ocean management, Prof. Drago; and the two gentlemen on my right, Mr Barrett and Mr Hardcastle, are talking about climate change impacting food security, which relates in particular to SDG13 and SDG2.

Questions should be directed through the Chair and will go through by show of hands, so that I have a list. Who wants to go first?

Q53. Mr David Earl: I would like to ask all of our experts: how important is it for parliamentarians to understand the ‘energy trilemma’, which is balancing energy security, energy sustainability and energy affordability, if we are to meet the goal of limiting global warming to 2°C by 2030?

The Chairman: Okay, does any expert witness want to ... ?

Mr Jack Hardcastle: Just a preface: my background is not in climate change, so I am relatively less experienced on this panel, I will admit, because my background is at the CPA. But I can just talk from the perspective of the toolkit that I put together.

So I guess related to energy in small states: when we look at the dilemma with small states combatting climate change, and related to energy, there is the need to balance both prioritising adapting to climate change – climate change adaptation which, for many, is the priority, being exposed to more extreme weather, which is intensified by climate change, they obviously need to prioritise that aspect as well – but then they can also look towards mitigation, for which having the energy transformation/energy revolution is a key aspect.

I think that by mitigating climate change, small states can not only set an example to larger states, doing it in a smaller jurisdiction allows it to potentially do it on a more national scale and set a good example for bigger states to follow, and those more culpable, in terms of greenhouse gas emissions. But it also increases security and reduces vulnerabilities in relation to reliance on fossil fuels, for example. So many small states and small jurisdictions are heavily reliant on imported fossil fuels, which creates increased vulnerability to external shock – shocks in the global economy as well.

So by transforming their energy policy and their energy systems, I think they can kill two birds with one stone by increasing security, but also setting an example for others to follow as well.

Ing. Anne Marie Grech: If I may add, I think it is important for them to understand demand and the supply side. So, on the demand side, what are the actors? What makes them act the way
they do? I think on the demand side, again I am repeating, it is energy efficiency, so they have to understand: do we need more education and awareness? Do we need legislation to have, for example, certain companies undergo energy audits? Do we need incentives to help the take-up of energy efficient measures which many times come more expensive than other standard measures?

And then there is the added bonus of technology that can help in reducing demand. So with small states, maybe, there should be more drive so that research and innovation is more focused to specific scenarios. It is not simply because small states many times are technology takers, so they have to shift the focus to tailor-made solutions.

With regard to supply, it needs to go through a transformation as well. You need to improve generation efficiency, you need to opt for cleaner fuels, to decarbonise, you need interconnection, especially for small states which will help even in the integration of renewables, and altogether they will help to decarbonise the supply side and ensure more security.

Thank you.

The Chairperson: Hon. Member, David Agius from Malta.

Q54. Hon. David Agius: Good morning everybody once again. I feel we have more women on our side today, Jean-Claude, so it is even better!

Thank you for this discussion this morning. Prof. Aldo Drago, thank you for being with us, and I would also like to focus a bit on your sector.

Most of us here are small states and islands, and the sea around us, the water, is very important for various reasons including fishing, including our reverse osmosis. Our participants have just had the occasion of visiting such reverse osmosis, which eventually leads to water in our houses. Obviously, tourism depends on water as well, because we need water and, therefore, we need protection as regards to pollution or anything that can happen around any island. What should an island do in order to feel protected or to put its mind at rest in order that if something happens we will all be safeguarded or have our minds at rest?

On the other hand, I think that Anne Marie Grech would also help us in giving us the policy, the thinking of having a small island and having spaces which are limited. What could islands like ours do in order to have the right policy for the right amount of energy that we need?

Obviously, if you have a power station, anywhere you do it on an island, that is always going to affect somewhere. So, what are the solutions and which policies should be adopted with regards to energy and security of energy in small islands?

Prof. Aldo Drago: You have touched upon very important aspects indeed. In order to put our minds at rest, this is the key question, and there are many aspects to that because you can have natural hazards, which can include storms, an oil spill, a tsunami, but there are also man-induced hazards which we also need to be prepared to take action if we need. All these different aspects have different needs. We need to be prepared in different ways for different things. There are certain elements, I believe, that are a key structure, a key base that we need to build upon in order to address the various issues.

I come back again to the need of being able to measure the sea not just to understand more. Remember that the marine environment is a complex system. We often compare the marine environment to the human body. We know how complex we are. Understanding our health is not easy and we know that science is not yet there to understand all our illnesses, especially when it comes to the human mind. Yet with the knowledge we have we need to make the best to intervene where we can and this is about being able to handle complex systems, as I said. The marine environment is indeed a complex system. We cannot understand it fully but we can understand those aspects and at least be able to address the aspects that we understand.

However, in order to be able to better understand and to better intervene, we need to measure. The state of health of a human body – we continue with the analogy – is by measuring
certain parameters of how a person feels but also of measuring concretely certain parameters like body temperature and other things. Same with the sea; we need to have some essential parameters which are made known through a regular, long-term, sustained effort to be able to really understand whether our state of health of the coastal seas is deteriorating or not. It is not a question of just having a feeling of whether you are healthy or not; you need to be able to really measure.

Very often when I speak to politicians, I try to bring certain cases that can be appealing. For example, we know that in many small island states, like Malta, tourism is a very important component of our economy, but do we know how exposed we are even to simple comments that may be made internationally which, for example, may damage our tourism industry by just stating: ‘Do not go to Malta; Malta has jellyfish; Malta has bad water bathing quality.’ How can we combat these kinds of impacts, if not by having our own system that really caters to describe regularly what the real state is of our coastal waters?

We can very much easily be exposed to big things and not just natural hazards, but even attitudes that can come upon us without expecting them and we need to be ready to respond. This means that our country, like other states, needs to be ready and have its own local set-up to be able to really measure and understand our own reality.

This is why we have always been promoting and asking for support in order to start building, on real solid ground, an observing system for our marine environment. We know that a lot of activity is done to address framework directives, which are imposed upon us as an EU member state, but very often – not just in Malta, but I believe in other countries as well – we do this only to address the framework directives, whereas it has to come from us as an essential need to be able to protect ourselves not to abide to any directive, in the sense that we should be aware that we need to do it because it is to our advantage.

First of all, from the research point of view at the University of Malta we are well ahead in doing projects that are leading to better understand and better observe our sea, and also to provide essential services to our local stakeholders like the Armed Forces of Malta and Transport Malta – Armed Forces of Malta for search and rescue; Transport Malta for oil spill response; and many other local stakeholders. So, we are trying to do this, but we are doing this on a best-effort basis, which means that if the research community stops doing it, there is no structure that can sustain it and we cannot afford to keep on this track. We need to take a firm decision of where we want to go for the future in order to secure this aspect. We need to build on what we have, but to raise it to the level from best effort to a commitment.

The Chairperson: Thank you for the answer. David, you asked two questions; are you satisfied that they were covered in the reply? (Interjection) Okay.

The Hon. Member from BVI.

Q55. Hon. Kye Rymer MHA: Thank you, Mr Chair.

I just have a brief follow-up to the Professor. I notice that you are an international maritime specialist, so I think you are familiar with the International Maritime Organization (IMO) and the functions that they carry out. Like you mention, in most of our small states here, tourism is quite important to each and every one of us. In the Caribbean basically we embrace cruise tourism. We are building more ports and encouraging more cruise ships. I know that recently Carnival Cruise Line was fined for dumping its sewage in the ocean and that affects our ocean.

What would you suggest as a solution, like fines or a framework for the cruise ships when they visit our territory, or making sure that they properly dispose of their sewage and so forth?

Even when they are in port, what would you suggest to legislators, for the exhaust and so forth?

Prof. Aldo Drago: This is not exactly my expertise. I am not very much related to shipping and to these kinds of activities. But indeed, from what I know, IMO has and is continuing to establish practices in order to improve all these aspects that you mention. I think the question is more
about how to enforce these things because you may have as many regulations and guidelines as much as you like, but then, if internationally and locally on national scales, there is no supervision that these things are really followed, then it becomes useless. So indeed we need to continue to evolve, from my understanding, to improve the guidelines and practices as knowledge gets better but from the enforcement side getting all the players to really understand and to really follow ... I think that is the key issue: how to do it.

Mr Vernon Barrett: If I can just add to that, I have a little bit of experience in this area.

It would be carrot and stick when using the private sector, I would say. The carrot is, as I understood, that certain countries in the Caribbean undertook to have facilities installed to process waste of ships’ docking. I am not sure about your particular country. But also if the countries of the Caribbean would come together to co-ordinate efforts ... So that is the carrot, to make sure that these cruise ships have the ability, no excuse, for processing the waste and not discharging it at sea.

Secondly in terms of enforcement, you are quite right – Prof. David Attard from the International Maritime Law Institute (IMLI): that would be his area – the Cartagena Convention dictates that they be penalised, but it is enforcement. The technology is now there, again, with satellites and drones to have programmes of identifying, tracing and then following through. It has not been done historically, probably because interdiction is difficult to do; it is costly; it is hard to trace and so on. But the technology is there now, and again if a collective effort was taken by Caribbean countries, including the independent ones and yourselves, I think this is a well worthwhile effort that would gain popular support globally.

The Chairperson: The next question from the Hon. Member from Jersey.

Q56. Deputy Robert Ward: Thank you, Chair.

To get back to the renewable energy questions that we started with, and the dilemma that islands and societies face, how would the panel suggest we go about encouraging the increased use of renewables?

I will give you an example: in Jersey we have undertaken an inventory of our CO₂ emissions and only 6% comes from energy production because of our energy coming from France via hydroelectric and nuclear systems. However, I would suggest that we need to build renewables – and we will come back to it – because 51% of our emissions come from transport and we need to change to electric and that is going to need more energy.

But what would you do to encourage jurisdictions who might say, ‘Well actually, it’s not going to have that big impact now to move towards renewable energies and make that investment that is so necessary’?

Mr Vernon Barrett: If I could say a few words here.

I encourage people to look at this film: it is called The Fourth Industrial Revolution and it talks about the future of energy as one of the things ... We live in a world that was generated or created going back to the 1940s and 1950s, where power was generated centrally, hydrocarbon-driven and so on. But the good news is that solar power or wind are now cost competitive with hydrocarbon generation, so it requires a vision for the jurisdiction. The Germans and the Chinese, I would say, are the leaders in this area and the way it is phrased is that every house becomes a power station. If you have a space on your roof, you can put in solar-power panels.

When I spoke earlier on Wednesday, I alluded to the fact that you, however, have legacy players in place, the power-generating companies, and you have to find a pathway to work with them or to encourage them through policies to engage in this process of transitioning to the new world where you have the ability to tap in to individual power sources. That has implications like balancing the grid and dealing with the fact that with solar, there is obviously no sunlight at night so there is no power then, and when the wind dies down. So it is an integrated system.
So to answer your question, it is one working with existing power companies and what is their position and what can incentivise them to move ahead to make that change. And then you can encourage private individuals: a good analogy for small states would be in Barbados where they had the solar panels – and these are not PV panels; these are solar water heaters. And when you go there you are quite impressed to see on every rooftop these devices that heat water through sun radiation. So you can encourage households to undertake to become power generators in this system.

In your case, I would say that you are right, that the transition is also to do with transport and again, you have hybrid cars; and now you have electric cars, which are becoming more and more viable. Then you have to put infrastructure to accommodate charging vehicles, but those vehicles will require charging, so you need an electricity supply system again.

One anecdote I would give from Jamaica, which is going through a rather difficult transition, is that the incumbent power supply station or company is experiencing challenges with this transition – you could foresee some of it in a way – and that is to say that because power generation is becoming affordable renewables, the bigger players who consume power are each setting up their own power systems and they are decoupling from the existing power structure.

So the big power-generating companies are losing their premium customers and that leaves a whole bunch of individuals having to pick up the slack. So electricity prices, perversely, are going up in Jamaica and no matter what the regulator may say or do, this is what happens: cherry-picking occurs, the people who can get off the grid because it is too expensive.

So again, if you do not do something, what will happen? So you have to get the argument going with the power company – I am sure in your country or your jurisdiction if it is private or government owned – is it government owned, like in Malta, it was easier to make the transition, I understand; but if it is privately owned, then you have a different challenge.

Thank you.

**Ing. Anne Marie Grech:** I think it would be interesting as well to create the need for renewables, so there is a client base which is ready to pay that extra bit more to have renewable energy. I think the legacy company will see a benefit in moving in that direction and it could also take up investment with other stakeholders, other private companies where benefits and risks are shared. So I think if there is the drive, even coming from the customers themselves, the legacy company will definitely change and I think renewables need to be promoted in their totality, not just for the CO₂ aspect, but also for the economic benefits it might also bring to the country – for example, green jobs or maybe new research opportunities.

**The Chairperson:** I noted the Hon. Member from BVI has a supplementary question, but before I would like to give the two Members who have not had a chance to ask a question first, then I will come to you.

Hon. Member from the Cook Islands.

**Q57. Hon. Tamaiva Tuavera MP:** Thank you, Chairman.

Prof. Drago, I am going to talk about the ocean, because this is where I come from. We are talking about mining of the ocean.

Before I ask my question, if you are familiar with the handouts that we got on SDG14 and SDG14.7, my question is: what type of pollution this would create at 5,000 metres down below where they are going to mine the ocean. What type of pollution will be coming up; also the effects on sea life at that depth?

Also, I want to touch on the plastic pollution that is floating around in our ocean and killing or decimating a lot of the sea life. As we all know, where we come from, that is our basket of food that comes from the sea. So if you can help us on that.

Thank you very much.
Prof. Aldo Drago: I will start from the easier one about plastics: as you know, there has been already a lot of emphasis even from the point of view of awareness to the general public, but also about how to handle the problem, how to address it and to mitigate and change attitudes.

Indeed, this is a problem which we have to face and there are two aspects to it: first, to avoid increasing the problem and therefore to come up with ideas of how to reduce plastic use, also to avoid single use, and to look at options to avoid using more and more plastic materials. Of course, this is going on very strongly, I believe, in all the countries in order to find a remedy for this and to find options.

However, probably the most difficult is how to tidy up as much as we can what we have already done to the oceans with respect to plastics. We are not speaking here just of macro-plastic; we are speaking of micro-plastics, which are so small that we do not even see them, but which are there and which are affecting the fish and eventually the people who eat the fish. The problem is that probably we do not know yet the extent of the problem; how really strong it is. But at least there is a lot of activity going on. For example, the European Union in the last years has been pumping a lot of money for research, for actions, and this is a good sign, that at least we are doing something; we are moving ahead, and we are trying to find solutions.

In fact, I am involved in a Mediterranean activity, which is pushed by the European Commission, which is also aiming to create an international effort. It is not just single countries doing things separately but it is about bringing the countries, in this case the Mediterranean, to act together to adopt common measures. I think this is very important and the actions are very promising, in the sense that all the countries are aware, and all the countries have national set-ups which are already doing things.

With regard to the other question which you asked, about deep sea mining, this is much more technical. I believe that this is a case where man is doing new activities with unknowns. We have done this in the past where we start on new activities without being aware of what could be the consequences. Plastic is an evident example, then we realize later on, years after, that we have created a problem. So I think that we need to be very cautious that when we embark on new technologies, on new activities such as in the case of deep sea mining, we do the appropriate assessments and do not do actions before we really understand what could be the risks.

I think this has to be the attitude and this has to be the international backing that has to come forward; not to allow things to happen unless the risk assessment is done properly. And therefore, welcome new technologies but then when it comes to applying one has to take into consideration all the necessary aspects. Therefore this is my answer from the non-technical point of view – because I am not involved in deep sea mining to that extent, to know the details of how the technology is adopting measures to avoid the kind of things that you were referring to. Of course they tell you, ‘Yes, we are ready to do it.’ Those who want to invest, those who want to exploit will have many reasons to go ahead. The question is even from a diplomatic point of view how to have the right mechanism with a proper framework to be able to address the risk assessment that I was mentioning before and to really enforce that certain guidelines are appropriately followed before engaging in new activities that can have question marks, that can have unknowns.

The Chairperson: Mr Barrett, do you want to come in on this?

Mr Vernon Barrett: Thank you.

If I could just add to the Professor, you are absolutely correct. I believe Papua New Guinea is the first country to undertake these kinds of activities. So I refer you that; I have not been keeping in close contact with it but that is a Commonwealth country, a small state and they are the first ones who initiated deep sea mining.
The other resource to perhaps refer to would be the Law of the Sea Convention, which deals with this particular topic, and see how they have set aside or they are monitoring hopefully what is unprecedented activity and to make sure that it does not do environmental damage.

The Chairperson: Thank you.
So we come back to the Hon. Member from BVI.

Q58. Hon. Kye Rymer MHA: Thank you, Mr Chair.
The question is for Vernon: it is basically a follow-up to his introduction. He spoke about food security and basically stated that we are going short on food; also on fishing, and those are essential to us as a people in the territory of the BVI. I know when growing up, my grandparents exported food – potatoes, bananas, everything that they planted in the ground – and they exported it throughout the closer Caribbean islands. Growing up, that was something that I did, but when I got to high school, they encouraged you to go to school. So then there was a lack of interest in farming and that continued. So now we basically import everything.
You say you have the solutions to how this can be curbed; how we can encourage farming.
You say ‘grow what you eat and eat what you grow’. What advice would you give to me, or as a people, about how can we encourage farming and fishing within a small territory?
I know that government, a past administration, thought about doing greenhouses to do more for the food supply but based on us as a territory we have a lot hurricanes that blow away the greenhouses. So what would you suggest or what incentives, how would you motivate people to do more traditional farming?

Mr Vernon Barrett: Thank you, Hon. Member, for your question – a good one.
You are right: the Caribbean region is God’s bowling alley, so we have hurricanes going through there periodically. I saw what happened to Abaco, for example, in the Bahamas last year. It is pretty hard to protect against that kind of storm surge.
Nevertheless there are what are called ‘climate smart’ systems that can actually provide some degree of security. These are enclosed containers – the Japanese are actually ahead in this area – where vegetables can be grown in a controlled environment. That is something like a 40-foot container, but scaled up. It is temperature-regulated. Water circulation and re-use avoids much demand for what is now quite a scarce resource in the islands. I would also suggest diversifying more, looking to the sea. There are technologies that have been developed.
Malta is a good case actually, but it is the wrong type of water temperature. They do sea bass, sea bream and tuna here, in what is called mariculture – so at-sea fish farming. The Scottish, the Norwegians and the Chileans do this with salmon; Singapore, I would say, another Commonwealth country, a small state – well, not small any more, it has such a big population – but they have got emerging technologies to deal with fish varieties that can be farmed at sea.
So in other words, what I am saying is that one would look at the overall diet, what is it that can be grown – going back to traditional knowledge. I know Turks and Caicos, Jamaica, Bahamas, they have the conch. So how can you actually – again, going back to this – control production of food?

What encourages the youth to get into agriculture and food production is technology, in part, and if it is profitable or less risky or both. This is what we have to strive towards: developing systems that make it an attractive proposition.
Historically food growing/agriculture was seen as very menial, very risky and unprofitable. If you look at the structure in the Western economy in particular, what has happened is that there has been a decoupling between agriculture and processed added value in the food system. That is where the money is: the added value. For example banana chips, but when Jamaica had the change in terms of exporting bananas to the EU, it then began to process the bananas into banana chips.
You can do the same with cassava. The Caribbean is where cassava originated from actually – it is now in Thailand and in Africa – but cassava is an indigenous crop in the region. I am not sure about your country, but Jamaica certainly could grow it. The Arawaks lived on it and it is about revisiting traditional indigenous knowledge sometimes to see what was it in those days that they were able to grow in a sustainable manner.

The other point is back to power systems. One thing that we found is a challenge in these islands, in small states, is that the cost of power is very high in many of them. Without power, agriculture becomes a non-viable proposition.

Food waste: it is estimated globally that between 30% and 40% of food grown is wasted. So if you can have an affordable power system, then you extend the life of crops once they are reaped and you can actually have greater income. This is one of the SDG2 goals: to increase productivity and income to small farmers globally. But you need to construct a model now, that not only can farmers access the value-added chain and therefore earn more income, but also reduce their waste by having an energy-efficient system that is affordable to make that proposition attractive to the youth.

Those are just some of the solutions.

Q59. Deputy Robert Ward: I would like to ask a quick question with regards to food security?

We are talking about food security in a context of climate change and you mentioned that 4.7 million children have insecure food in the UK. How much of that is because of the political organisation of access to affordable food, rather than the availability of food per se – i.e. we can grow the food, it is there, but you just cannot get access to it because of inequality, as we have talked about it before and so on?

And how much is that equation made when we look at the overall needs for food into the future and the effect of climate change? Is it not in a large part the distribution of food and wealth that is an issue that we face, which could help to mitigate the effects of climate change if we get that right first, so to speak?

Mr Vernon Barrett: Specifically with the UK, because that is the example I gave, which we know is a large state, but still it is interesting; it is a wealthy country: what I would say is that in those households where children regularly experience physical sensations of hunger – and that is 4.7 million people – the parents are working. They might be single parents but they are working.

So, the point in the UK is that – and this is a trend that is increasing – there are many social issues: there is wealth, there is income ability to earn. Actually, people say different figures, but between 50% and 80% of UK food is imported. The pound is still the national currency. So if you are importing food from Europe or the US, you have the currency fluctuation – that is one thing that comes to mind. When Britain opted to exit – Brexit – the pound to the dollar went from about 1.6-something to 1.3. This is a huge devaluation. This reduces the buying power of imported goods and, personally, I see this in supermarkets in the UK, in London – in Sainsbury’s – you notice the prices have gone up tremendously, the quality of the food is going down.

In the Isle of Man – that may not be your jurisdiction – they had a report done in 2014. I was curious to see what the entities did and I looked at food security, food strategy for their jurisdiction and they even alluded to the fact that they need to be conscious that they import a lot of food and the importation is subject to availability and price, which are the two key things. I am saying that in all countries, once you are buying on a global market – which is what you are doing – you are subject to all these other considerations that are outside of your control.

I am not sure I got all of your questions that you put forward; was there another topic?
Q60. Deputy Robert Ward: It was about the impact of inequality in access to food as one of the issues that needs to be addressed before we make a larger conclusion about how climate change, and the physical impacts of it and the difficulty in literally growing food, impacts as well.

Mr Vernon Barrett: Climate change adds to the dilemma in the sense that it is going to disrupt the global food system supply chain. If you look and see what countries are doing in this regard, China for example is, in Kenya ... ‘tying up’ might be a controversial phrase, but engaging with Kenyan farmers to grow avocado on a secure basis, knowing that that is where they are going to sell their avocados to, once they are grown. So, countries can begin to develop these strategies of securing supply chains. If you do not grow it yourself, you have some access of securing your source, be it from another territory.

But there is no doubt about it: climate change is going to affect both the availability of food and the price of food and it is what you do in preparation for that and the different strategies that you can engage. You could try and grow more of your own food. I do not know where your particular jurisdiction is ... Jersey, for example. Somebody told me that in some of these islands you grow premium stuff and you export it, because you get a better price abroad and you import back the same stuff, a cheaper variety of it, which in a business context you can say, ‘That’s fine, what’s the problem? We’re extracting ...’ – ‘economic surplus’ is the phrase that economists would use! Of course you have got to factor in the footprint of carbon and so on, but if your local people are not willing to pay the premium price for the produce you grow because it is so high quality, then this is what you have to do as a business person.

Alternatively, you then would say, ‘Maybe we could grow lower quality stuff on the island and sell it to the local market’, but that is between your government and your business and the taxation and trade issues, which I do not have much detail on.

The Chairperson: Thank you for that.

Just to give an example of the securing source of food supply that you just mentioned, some countries are now even buying land. The bigger countries in Mauritius are buying land in Mozambique: they have farms there to supply Mauritius with food.

So, I will now open the floor to other Members who want to join in the conversation.

Jean-Claude Micallef, Hon. Member from Malta.

Q61. Hon. Jean-Claude Micallef: Thank you, Mr Chair.

I would like to follow up on Hon. Rymer’s question with regards to farming and Mr Barrett’s reply. I would also add fishing to it, but let’s stick to farming first.

I find it a bit contradicting when we are speaking about self-sustainable farming and then looking for options like having bunkering systems, calling them smart farming systems. I think that is a bit contradictory in that regard. The same goes for fishing, especially traditional fishing, which I truly believe that, unfortunately, is a dying culture, like farming.

I would say that a contributor to this is plenty of one-size-fits-all criteria that are being imposed in different parliaments; in our regard, being part of the European Union, that is surely the case, but I do not know about other jurisdictions when it comes to the rest of the world.

When we speak about fishing, a lot of countries portray fish farms as the best solution. Unfortunately, what is happening is that we are having less quality when it comes to our product and also we are creating symmetries in our sea life, so we are destroying our sea life because of either over-feeding or lack of regulations when it comes to fish farms. That is happening to us over here, having also problems related to tourism where, unfortunately, we have even contaminated bays due to fish farms.

I truly believe that we need to join forces here. We need to join forces in this regard and be leaders in creating guidelines, for the simple reason that no big country can or will fulfil our interests more than we do. Therefore, I believe that following up even on yesterday’s proposal, even by my colleague Hon. Agius, we should truly start thinking about seeing that we will not
start talking and stop at that. We cannot leave this assembly with this discussion and having only either a solution or else comments that will be shelved. We need to join up together, create guidelines that bind us all and we will surely influence the scenario at home, but also within other inter-parliamentary fora.

The Chairman: I am not sure if there was a question –

Hon. Jean-Claude Micallef: No, it is a comment, but I can direct a question to Mr Barrett.

Mr Vernon Barrett: Thanks for your comment, Hon. Member. I am an engineer originally. I believe in data, and this is where the FAO impresses me: they have the data. They do the numbers and so on.

So you are quite right on the face of it. Some of these enclosed systems might appear to be contradictory, but if you look at how it is designed and look at the full economic picture, it is a bit like yesterday when we spoke about the unpaid work that women do, and quite rightly this is a serious topic. It is failing in the economic system.

Another one to do with food is the bees: the bees pollinate, and they contribute something like $800 billion of effort! So when our pollinating bees are dying because of damage in the ecosystem, it is a cost that is there.

When we look at the food cost in the self-sustained and enclosed systems – and this is not the only solution; it is part of the solution and going forward, these are unprecedented times, so we have to be willing to try different things in combination.

Let me tell you a bit about how the model looks in that case. Water is key. Water is the primary input for agricultural production. 70% of human consumption of water is through agriculture. That is a fact.

Now in these enclosed systems, water consumption is reduced hugely, by probably that amount of percentage; 70% is recycled, it is drip irrigation and so on. So, that is one factor. You have to look at the full picture here.

The other is to do with energy. True, it is not grown in the sun, but it is solar powered. They use solar panels to provide the energy to grow the food in an enclosed environment.

A third aspect is the waste. This is the key one when you do the numbers on greenhouse gases. CO₂ is talked about a lot, quite correctly, and losing trees and burning down forests and so on, but the greenhouse gases that are emitted from food waste, food losses, which is 30% to 40%, as I said earlier, is huge. This is serious stuff. This has the effect of a multiple of CO₂, maybe ten times. So again, in enclosed systems, you are controlling all of these aspects; not to mention the fact that you are now growing the food in the urban environment where they need the food – you are not growing for some remote country or even part of your ... if it is a big country, in the countryside – but it might be a different, foreign country if you import the food, you have that transportation footprint to consider, the wastage on the way and so on.

So one has to look at the data in the full picture, when you propose new models, and the FAO is convinced that this is part of the solution, and I believe them. It is not the only solution but it is something we need to undertake and look at.

So I think that addresses the valid question you have about what are the alternatives in this area.

The same thing with seafood: farming, yes, is controversial, but as I said earlier, in the Caribbean in particular, over 30 years they are spending twice the effort. You have fishermen in Jamaica going out for three hours to go fishing and coming back with 25% less than they did 30 years ago. The economics of that do not make sense.

So we have to compromise and we have to think of ways of doing things, and we will look at the numbers and will determine. But I do not think we have enough time to actually say well, we
will debate this; we have to do things and then share the knowledge, and then build on what we learn.

Q62. The Chairman: If I can invite Mr Hardcastle to say something about this, because you were talking about how parliamentarians can take action – what action can they take locally to make a difference, so that from here, when we go back, we can start making a difference?

Mr Jack Hardcastle: I am not sure about the technical and the detailed specifics of the content. I am sure that Mr Barrett is more qualified on that, but just to echo about getting access to data and utilising as much as possible organisations such as the FAO. I think that when you are talking about fishing and fisheries, they have an FAO framework that can assist policymakers and decision-makers, especially within small states which may lack recourse to technical and financial resources to create broader policy resolutions and solutions. So there are avenues and resources out there that decision-makers can use and utilise.

Also on the topic of fisheries, there are locally managed marine areas that bring in a more participatory approach to solutions that can share resources using local solutions as well which can take the burden off some of the resource constraints that small states may have.

Then I think at the end, you mentioned about working internationally and working together on the international stage – so a slightly unrelated answer here. I think parliamentarians do have a role on the international stage, particularly within environmental governance and climate change action. They should really be more proactive through forums like the CPA Small Branches. The Inter-Parliamentary Union (IPU), for example, have parliamentary groupings on the margins of COP, which is the main international climate negotiation forum by the UN, so they have meetings on the side.

Also parliamentarians can be more proactive in engaging their governments, requesting parliamentary representatives on international negotiation teams, either they could do through links through Foreign Affairs Committee, for example; and also using parliamentary groupings such as the CPA Small Branches and how we are not only coming together as parliamentarians but how can we, as a group, then go out into the world of action on climate change within international negotiations as well.

Ing. Anne Marie Grech: If I may add, I think parliamentarians can keep their governments on their toes, in the sense they can request state of the energy sector reports identifying where we stand, whether we are reaching our targets and even request the cost of inaction; how it will impact on the state.

I think that the parliamentarians also can act as ambassadors of change. For example, if they take up some innovative renewable solutions, they can even talk about their personal experience on the take-up and even promote it within their state. So I think, the change can be there, yes definitely.

Q63. Hon. Jean-Claude Micallef: I definitely took note of all the comments but my point is that if we take fisheries, for example, what is happening is that the Government is discouraging traditional fishing, for the simple reason that we need to reach certain criteria and we have situations in the Mediterranean Sea where Maltese fishermen need to abide to Maltese laws and international laws, while Tunisian fishermen will simply continue fishing without laws and without regulations. The same goes for the Japanese craft that fish heavily against any traditional fishermen and therefore it is useless saying that parliamentarians can put pressure on the Government when the real problem here is that we are small, and yes, in this matter, size matters. So that is why I truly believe that together, as Commonwealth Small Branches, we can take a stand and move forward on building regulations which can be implemented also by our governments to make sure, first of all to safeguard such industries like farming and fishing.
The Chairperson: We have approximately about 25 more minutes to go, before we close the session. We have a couple of people who want to contribute. We will start with the Hon. Member from the Isle of Man.

Q64. Mr Bill Shimmins MHK: Thank you very much, Chair.
I am interested in the panel’s view on food security perhaps from a slightly different perspective. Small states clearly lack scale in food production against massive large agricultural businesses. Generally, you gave some good examples of people adding value and making a premium product – so bananas to banana chips; Manx cheese has gone from being bulk milk to a premium product, which is exported – and that makes sense from an economic perspective for the producers. But we still have the trend for importing a lot of lower price food and clearly some local people will buy local through a sense of pride or loyalty or they are willing to pay that premium for a higher quality product; but a lot will buy on price, either because they have financial constraints but actually a lot of people will buy the cheapest and then use the savings to spend on something else.

From an environmental perspective – which is what we are discussing today – that is really quite questionable in terms of that trade, so particularly Vernon’s views: how can parliaments address that? In many ways, it is natural consumer behaviour; it is natural producer behaviour. What are the options?
Thank you.

Mr Vernon Barrett: Thank you, Hon. Member.
Yes, it is a conundrum in a way: what do we do to make food affordable to the local populace?
I am not familiar with your territory, so I do not know, for example, why food prices would be seen as high compared to what people earn in their income; but typically in some countries it is to do with energy. This is the biggest cost component for food – or scale of production, you highlighted quite correctly, this is the size of the island itself.

Would government intervene and do subsidies on food? I do not know. This is what some developing countries do that: they subsidise certain food items that are considered basic essentials; or lend assistance to the sector itself – so dairy, meat or whoever it is that is seen as having fairly high prices.

I do not have immediate solutions, I am sorry to say, but I think you would need to certainly have a joint public-private sector ... maybe have an association of food producers in the island, talking to the government to identify what it is that they can do jointly, so that is looking at it from the supply side and on the consumer side.

Certainly, what countries are doing though is that governments are aware that there is a long-term impact on eating inferior food types and this is, in the FAO’s context, what we call malnutrition. It is not under-nourishment; it is eating the wrong stuff, leading to non-communicable diseases (NCDs), which are like diabetes, heart conditions and stuff like that. So in the broader picture in the long run, it is important that people have good diets and eat good nutrition – and that links to SDG3, by the way. SDG3 is health and well-being and the FAO is also getting involved in that correlation link between SDG2 and SDG3.

That is what comes to the top of my head. It is specific to your jurisdiction, though: why is it that we have this disparity in a way between what is grown locally and what people can afford or choose to buy. You could say, okay, let’s tax certain foods coming in. I do not know if that is in within your control or is that UK-related.

The Chairperson: Thank you.
Now the Hon. Member from Alderney.

Q65. Mr David Earl: Mr Chairman, fellow parliamentarians, I have just taken a look at the United Nations website and according to the figures that are published there, to achieve
sustainable development goals an annual investment of between $5 trillion and $7 trillion is required. Now with something like $200 trillion available for investment in the world, we need to somehow make sure that those funds are diverted into projects where they can do some good.

Alderney is part of the Bailiwick of Guernsey and the Guernsey Green Finance has set up an initiative primarily to encourage investment into affordable and clean energy, which as you all know, is SDG7. Now, currently Guernsey has five funds with around $4 billion assets under management and that is approximately 1% of the total funds they have under management. But they hope to increase that to 10% of their assets under management by 2025. However, according to the Director of the Guernsey Green Finance organisation, the problem they face is, I quote, ‘the legitimacy of the green product combined with issues over the return on investment (ROI)’.

Can any of our experts offer suggestions as to how green funds can be made more investor-friendly?

**The Chairperson:** Anyone?

**Ing. Anne Marie Grech:** I was going to mention that sometimes these green funds tend to have an administrative burden, so to apply for this fund sometimes you need to get paperwork, etc. so it is very hard to actually access them. I think they need to be targeted to those areas where there is a market failure, so we can address that and then ensure that the take-up happens.

**Mr Vernon Barrett:** I am not sure I understood fully though: to make green funds more investor-friendly from the point of view people applying for the funds or the people disbursing the funds?

**Mr David Earl:** Well, people taking up the funds.

**Mr Vernon Barrett:** Taking up the funds, yes.

I have had some experience with the Green Climate Fund (GCF), for example, which is fairly new. My experience is more with EU funding – and I agree, it is a ridiculously burdensome process.

What I did discover at the FAO, where I am still working on a part-time basis, is that they at FAO are an accredited entity: they will walk you through the process of applying for these funds.

With GCF, though, you have got to go through what is called a National Designated Authority (NDA), which every country has – it is in some ministry somewhere, typically the ministry for environment – and the FAO is an accredited entity. They assume the risk on behalf of the GCF to design the project, execute it. What they have got again, because these forms are very bureaucratic, as the Hon. Member said, but there is also the fact that they require data, they want numbers, they want to show through recognised methodologies that what you are going do is going to actually result in what you say it is going to do, which is fair enough. But that is not the average Joe Bloggs skill-set.

It is becoming quite competitive now. There are billions and billions of funds in the GCF and this is just one of these funds. The process can take a year or more to successfully secure. But they have had good success. They have had applications and they are now on their eighth or ninth, and they have just started last year; working with government agencies, typically, but they want to see more private-sector involvement. They have said that explicitly in this approach either with government or on their own.

**Mr Jack Hardcastle:** Just to echo Vernon’s points on the difficulties and challenges for many states especially small states in accessing finance for environmental action. Often the process is
very bureaucratic and complex. You are at the very beginning of the process and it is often very disjointed; the landscape itself – there are many different funding agencies, it is very disjointed, which again is another distracting and off-putting factor as well.

Another problem as well is that much of the finance goes directly to implementing agencies, so it does not become part of a national budget as well. So it is difficult when you are looking at oversight as well; how that money is being spent and how it is being disbursed and what value it is adding to its ultimate purpose, towards sustainability and environmental goals as well.

But again, there is increased funding out there, there are increased agencies and institutions that are providing funding as well as assistance for small states in navigating the complex and difficult landscape.

I know one platform actually which might be of help, which is in the toolkit – a bit of self-promotion here! It is the World Bank Climate Finance Options platform, which provides a more user-friendly guide for states to navigate and find options for financing for climate change and environmental action.

As well, another thing with funding is that it is heavily skewed in favour of climate change mitigation. The main reason for that is that it is very quantifiable, which is very good for funding agencies: if you can quantify it, ‘Okay, you are going to reduce emissions by this amount’.

Funding for adaptation, which is the big key for many small states, is very difficult because it is very hard to quantify and measure. Again, that is changing as well, slowly. There is more funding for adaptation out there as well.

Mr Vernon Barrett: Just to add to that point – thank you for reminding me – the thing about mitigation is that when it comes to the link between greenhouse gases and the trees, it would be very useful if people planted the trees that bear fruit. It is an obvious statement to make, but things like bread fruit, mangos, avocado – I am talking about the tropics here. That helps a lot to kill two birds with one stone. And the changes that we are facing as a world, it is important that whatever we do has multiplier effects. Because what we see now are actually vicious circles – multiplier effects in the negative – one thing leading to something else, stripping something else. So we are into a rapid decline in some parts of the eco-system and you can remedy that if you find the right mechanism, but you have to have similar multiplier effects in the positive sense to make progress.

Just back to the Isle of Man, the Hon. Member, there is the Food Business Development Strategy, which you might be aware of, 2014. It is a 10-year thing, from 2015 to 2025. I am not sure if it got implemented ...

Mr Shimmins MHK: It is not an island-specific issue; it is a small states versus large states issue, in terms of scale. That is the point I was making. You gave the example of banana chips, for example. That is the conundrum I think that many states face.

The Chairman: We have another supplementary on this question?

Q66. Mr David Earl: I would just like to make it clear that the Guernsey Green Finance Initiative is a commercial fund; it is not a World Bank or state-initiated fund.

It would be interesting to hear from my colleagues from Jersey and the Isle of Man if they are having similar problems, but basically, what the States of Guernsey are trying to do is create an environment in which these funds can be born and flourish.

The Chairman: Just so that you do not skip the line, is your question in line with what we are discussing? Okay, so you first, and then we will come to the Hon. Member from the Cook Islands.

Go ahead.
Q67. Deputy Robert Ward: I think that we are talking about in terms of green funding and change and so on, there is an underlying question which is: because we are small jurisdictions and our emissions are relatively small – Jersey’s are estimated at 359,000 tonnes compared with larger jurisdictions – the issue that we face all the time, even within islands, in wanting to make change and attract green initiatives is “Well, what is the point because your impact is so small compared to the USA and China and so on?”

What argument can you provide to counteract that attitude? I suppose, it is an attitude that we have to overcome.

Mr Vernon Barrett: Is this because these funds are only applicable in the context of your geography of Guernsey? (Interjection) No, you could apply them globally.

Q68. Mr David Earl: Basically they are available. The fund is to generate capital assets or assets under management, which then can be used to finance projects, particularly SDG7 globally.

Mr Vernon Barrett: Not my expertise, specifically – apart from the grants and the funding schemes and that side, which is public money. But safe to say I noted that the CEO of BlackRock, which is the largest asset management fund management in the world, has undertaken a commitment to begin to look at the ESGs – you probably know this, right? – so environmental, social and governance structure of funds. His fund is $7 trillion, so big players like that will set the scene. And what it is designed to do in essence is to make sure that people who commit to these projects, that are conscious of the climate change dimension and others, can access capital at a cheaper rate. So, in the capitalistic model, they have an advantage comparatively to get cheaper loans to do projects more effectively and so on. Hopefully things like that will act as a driver. I do not know specifically what it would lead to, but it is encouraging.

The Chairman: I guess it is safe to move on from this topic.

Q69. Deputy Robert Ward: I do not think we addressed the issue of the argument for us taking action yet.

Prof. Aldo Drago: I just wanted to add another aspect. Of course, funding is important, it is the starting point, but not just funding. We should also perhaps look at the aspect of human resource. Who does the things? Even if we have all the money available, being a small state do we have the capacity to undertake what we want to do?

This comes to another important aspect of human resource. How much are we really producing the right people that are ready to address the challenges that we are speaking about?

If we look at, for example, our university, I believe that although there has been an expansion of different courses and different aspects, yet I think we are still very much tied to the traditional teaching of physics, mathematics, languages etc. I feel that the professionals who then go in the field to do the work will need to gain the experience by doing in practice, whereas if we are geared to produce the future professional, starting from today, who is ready and has the background, that will facilitate a lot and things will be much easier to handle.

I believe this is a very important aspect for small states that we need to take it into account and really address, not just the funding.

Mr Vernon Barrett: You are right about the size of the state, because it is small, when it comes to mitigation measures – so the reduction of CO₂ – but it does not mean people should not play a role and demonstrate leadership, lobby, work with others and so on; but it is more adaptation is where I think the real added value is. In theory, smaller states and small jurisdictions can act more nimbly and climate change is going to happen, we know that it is
happening. So one strategy is to try and slow it down. The other thing is to adapt to make sure that we have models and systems that prepare us. In smaller countries and jurisdictions it is easier, I would have thought, for people to get the will power, the decision, the motivation and so on to mobilise and to start to execute these pilots. This is a sort of engineering phrase: you do prototypes, proofs of concept.

Like I referred to earlier, food systems that are totally different from what we have currently, and I want to enlarge that discussion just briefly. When I referred to enclosed systems, ‘urban systems’ is the wider term and countries like Cuba, in Havana, but also Detroit in America, you have these locations within cities that are used for traditional growing crops that are in the open. The same application of logic applies there: people are going to be close by and so on.

In summary, small countries should be able to act quicker, try more innovative solutions, as you referred to, demonstrate and share that knowledge that can be scaled up on larger countries. That is, I think, the role when it comes to climate change: it is more adaption then mitigation.

The Chairman: Thank you very much.
So now a question from the Hon. Member from the Cook Islands.

Q70. Hon. Tamaiva Tuavera: Thank you.
First of all, I would like to the address the comments made by Hon. Jean-Claude Micallef from Malta about the fishing. What I am going to talk about, Jack, is the comments in here, what role can parliaments and parliamentarians do to stop overfishing?
I am going to talk about overfishing here because big nations like the EU, China and the USA coming down – miners are coming towards the South Pacific, they are heading towards the Cook Islands. We have 2.2 million kilometres of water that everybody wants to fish. We, the government or the parliamentarians, are guilty of giving out these fishing licences. We are the very same people who are trying to work out here, in this House, how we can stop this but at the same time we are giving out the licences with the left hand.
I heard the reply before and I was not happy with that reply because it does not tell me what I can do when I go back to my home island. The EU have come with money and got an eight-year-plus extension for fishing licences at 16 cents a kilo. So, we are not happy with that.
Also, the Chinese are coming in with fishing rights that they buy every year, or every four years, to fish in our waters.
So, it is money that is coming into the country, but all of this adds up to overfishing.
I am a fisherman, I own a fishing boat and at certain times of the year there is no catch because, as all of us fishermen know, that means that it is overfished. There are no more big yellow fin tunas coming through; it takes about maybe four weeks before they start coming through again.
So, I would really love, Jack, for you to come up with another solution on how we can go back to our homeland and say to the people, ‘This is what Jack gave us and I think it is going to work!’
(Laughter) Thank you, Jack.

Mr Jack Hardcastle: Wow – no pressure! I am not sure I have a single-handed solution to stop the Chinese across the globe investing economically!
I guess there is no easy solution when the economic incentive is so strong, particularly the Chinese in the Pacific. I guess as parliamentarians traditionally yes, you have less agency than the government, that is true, but there are steps you can take if you are innovative and if you explore different avenues, have domestic legislation and use the committees even for semi-related legislation on climate change. It does not have to be related; climate change and the related issues affect many areas, so use any opportunities in the committees, look at legislation
and amend. It is hard for a parliamentarian to propose his own legislation, so explore ways to amend existing legislations and have semi-related climate legislation.

I guess the key for parliamentarians is to frame effective climate action in tangible terms and terms that constituents and the people can get benefit from economically as well. Ultimately, it is not enough to rely on the science alone, it is not enough to go to the IPCC and get their reports and say, ‘Look, what’s happening here!’ because obviously this is not working! So it is using effective climate change action and trying to create a narrative that makes it economically viable and economically attractive for people in small states, constituents and populations to get buy-in for.

Unfortunately, I do not have the all-encompassing solution there, but I guess it is being creative and exploring many different avenues of what you, as a parliamentarian, in your normal function can do.

The Chairman: So you have a supplementary – just a point, okay?

Q71. Deputy Robert Ward: So just talking practically, then, if you were to take two young people – call them Patrick and Chloe, if you want – just to look at how we can impact on them and get them involved in the change, what suggestions would you make there?

The Chairman: The question is to who?

Deputy Robert Ward: We talk about practical measures for governments and for all of us, but it is people themselves to get involved in their governments, and it is young people in particular who will be affected most, but they are excluded too often from the governments that are going to take the action.

What sort of encouragement and action should we take to get those people ... because that is where the voices come from? We have all seen the young people’s demonstrations; they have been very effective.

Ing. Anne Marie Grech: I think that they have to be involved more, even during the early stages of legislation or policy, for example, and even during the drafting; they can give valuable suggestions and they will start owning the problem rather than being detached from it all. So, I think the more you involve more the major stakeholders, including the young population, it will help because everybody will be pitching in to make things better.

Mr Vernon Barrett: I will just add to the point, back to the Hon. Member from the Cook Islands, building on what was said – the issue was drawn to our attention maybe that in certain small jurisdictions there are not enough civil society actions and so we could lobby the international groups, bring an awareness to them of these issues – The Nature Conservancy comes to mind – because it is outrageous what you have just described to me: the fact that you have to separate is the action of these fishermen, of international bodies, legal or illegal? If it is legal and your country has sold out, that is for you guys to sort out. But if it is illegal, then you are aware that there are issues like the Agreement on Port State Measures (PSMA), for example, and the EU – call them to account to enforce what is there.

The FAO and international data can also help build your argument. I am sure you are right, with your knowledge experienced first-hand, this is the case. Third parties out there, including the FAO, should be brought into the picture to justify and quantify the fish stock levels to demonstrate that this is not sustainable, and it will lead to the collapse of the stocks. Therefore, you need to get their support, as well as other NGOs’ I referred to. Also, the youth in the country, in the schooling system, need to create awareness that this is not sustainable for their generation, because they are the people who are really going to suffer.
Another opportunity is the fact that satellite technology and satellite-based services offered by the Europeans – the Norwegians, the British, I am sure other countries; I am more familiar with those – are now very affordable. So, it is a matter of enforcing these things. They can scan ships at sea from the sky and by the outline of that ship they know what that ship is, even if it changes its name. There is a ship register that identifies these ships and then, according to the international law, you have to interdict it at sea – which I think is ludicrous – but in the same way you can get a photograph of you speeding through a traffic light sent to your home, courtesy of a camera system, you can begin to create precedents which will begin to enforce these laws. I think that is what is lacking. IMLI can say more about this, perhaps – when I spoke to Dr David Attard, when I was here three years ago ...

The technology is emerging and there is perhaps a reluctance or somebody is not making the first step to take to law courts, IMO and say, ‘This is the data, this is what we have, the visuals.’ You can even trace if they are dumping stuff at sea, you can do a map of the trail and link the two together.

Again, it helps if you band together with other countries in a similar position to make your case.

The Chairperson: Thank you. Before we lose sight of the issue that the Hon. Member from Jersey raised about youth involvement, and maybe this should be a recommendation that comes from this particular session and the Commonwealth has to take note of that. The last Youth Assembly for the Commonwealth was held in India and it would appear that it is something that will not be repeated again in the future, they want to cut down on youth involvement. I am not in favour of that, I want the youth to be involved very much.

The final question, it is my pleasure to give the only lady in the House to ask a question for this session. The Hon. Member from Northern Territory.

Q72. Ms Sandra Nelson MLA: Patiently waiting, thank you very much!

I have got just a comment to lead into the question. I have to say that I have been increasingly frustrated this morning because once again, we go back to: we all know what the problem is. We know what the problems are; what we want to know from here is what can we do to address those problems?

I do not want to repeat or regurgitate the same rhetoric. We know there are climate change problems, we know there are fisheries, we know all of that; but what are the practical initiatives and actions that we can take as parliamentarians of small branches? What can we do to take back to our countries? That is what we are looking for, suggestions and that sort of thing.

With regard to overfishing and the fishing situation in the Cook Islands, I am really interested in hearing what practical, pragmatic advice and guidance can be provided to small branches like the Cook Islands to address that sort of issue. Keeping in mind that the Cook Islands have a very small population, their economy is much smaller in scale than the economy of some of us bigger branches and so they are pushed into having their backs to corner. What can they do to protect themselves from essentially being exploited by the European Union in the future? What can they do to protect themselves economy-wise and to protect their natural resource – their ocean and their fish? So that is one.

Secondly, going back to traditional farming and traditional fishing: travelling around in Malta I see that agriculture here is still very entrenched in traditional farming methods. What can we do to encourage more alternative farming like, for example, permaculture, aquaculture, ocean farming, that sort of thing? And in pursuing that, are we helping the environment or are we creating another issue?

The Chairperson: I would like to ask the witnesses to first answer the question about the Cook Islands, then the question about alternative farming and then we will end by talking about
the practical solution that we, as Members of Parliaments from across small island states, can go back home with.

**Q73. Hon. Tamaiva Tuavera MP:** I would like to point out the problem of illegal fishing boats in our waters as well. That is the other big problem we have: the illegals that are coming in to fish.

**The Chairperson:** The Hon. Speaker from Fiji has a comment to make, we will take it now and then we will put it all together.

**Q74. H.E. Hon. Sir Ratu Epeli Nailatikau, CF, LVO, OBE (Mil), KStJ, CSM, MSD:** I will be very brief. I just want to take up what my colleague from the Cook Islands brought up earlier on about undersea mining in the Pacific. I remember very clearly back in 1972 when I was a second secretary, I was the gofer for our team at the United Nations when the debate on the Law of the Sea was at its height.

Our rep there was being advised by an Australian legal expert regarding the Law of the Sea and the mining thing had come up. He said that this will be a thing of the future, but the study of it has to be very carefully done. We now know that kind of study as an ‘Environment Impact Study’, so for us, it is going to come up sometime or the other. It has come in Tonga, it has come up in Fiji, it has come up in Papua New Guinea and it has started to come up in the Cook Islands, but we have to look at the environmental impact and then try and decide. But it was being thought of at that time; it has taken a while, but it has come to the fore and we have to address it. If we work together, we can address it.

As far as fishing is concerned, people might not know, but the fishing lines from Europe extend into the Pacific. I know that for a fact because they unload their catch on trucks from Suva, they go to Nadi and in 24 hours they enter the markets of Europe. This is a fact; it is being done.

**Prof. Aldo Drago:** I think the job this morning was to end up with some important messages and if we do not go away with some tangible things, I think we would have failed all the exercise.

On the one hand, there are so many issues going around and when you tackle more than a number, it is hard to break through with something really valuable. On the other hand, if you were to ask me, ‘Is there some common ground on what we have been discussing this morning?’, from my point of view, the major change that we are feeling is that today information is more accessible. We know more about things than we did a few years ago and this makes the problems more evident and therefore we feel more the urge to try to solve them, but in order to solve them, we need more information because if there is a dispute, if there is a risk assessment that has to be done, if there is a contest, we have to argue it and to resolve it through information, so that we know exactly what it entails.

This comes back to my first intervention about the need of data. When I was speaking about data, I was not meaning sea temperature and sea level; I was speaking in general, knowing where the fishermen are going, knowing what gear they are using, knowing the country of origin of who is doing an activity or another, knowing where resources are going, knowing what resources are available, etc. So, I was meaning all this full range of different kinds of data, not just ocean parameters. Therefore, I think one important message is to make sure that in our countries we promote the fact that we have this information available in a systematised way, not in an *ad hoc* manner.

One important message that we may perhaps take with us is on how we can systematise information so that it is accessible to everybody and it can be used in order to resolve and to plan. Finding a structure which enables data collection and information production on the national scale I think is one important essential step that we have to take, because that is the
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ingredient that we can then make use of to resolve many of the disputes in a tangible and effective manner.

Ing. Anne Marie Grech: This morning we have discussed a number of common problems and many times we tend to try to solve them on our own. Rather than solving them on our own I think it is better to join forces, maybe set up task forces for common issues, maybe fishing, maybe renewables, and through those task forces we can discuss and test new ideas and even share solutions which work back home. So, I think we need to collaborate more in order to solve our problems. The fact that we are collaborating together will put more pressure at an international level. We are all small, but I think we can make more sound if we all shout together.

Mr Jack Hardcastle: I would like to make two points: as a parliamentarian, go back domestically, look domestically, go back home, look at the legislative process, look at what influence you can have in affecting legislation – new, current, past or whatever – or raise a piece of legislation from the backbenchers, gain the support of parliamentarians, focus on one issue, do not try too much, focus on one issue and get support.

To end on an optimistic note, there was the case study of a private Member’s motion in the Cayman Islands which almost single-handedly was raised and passed. What happened was there was a draft energy plan in the Cayman Islands that sat dormant for several years, it was essentially dead, and one Member re-vitalised it and put it through as a backbench motion. It actually passed unanimously, and it was then incorporated into the government’s national energy plan. What he did was that he built support, he built allies and he also framed his argument economically and strategically. The big opposition there were the utilities companies that were big monopolies, but he was successful. This shows you what a single parliamentarian can do and can achieve.

Internationally as well: obviously, the problem does not end domestically. If you want to get to the root causes of climate change, we have to work on an international level and like I said previously, go back to your jurisdictions, speak with government officials, see how a parliamentary representative can maybe get on national negotiations to international forums, speak to committees and to the Chair of the Foreign Affairs Committee, and also request reflections and results from previous climate change actions on the international climate change negotiations from your state or your territory, and see how you can improve upon that in the future.

Just to end on a positive note in that respect, the work of Alliance of Small Island States, which is partnership of around 43, mostly Small Island Developing States (SIDS), and the influence that they had in the eventual Paris Agreement, which is the big overarching international framework – they actually lobbied hard to limit global target emissions to 1.5-degree warming. They did not succeed because in the agreement it was 2 degrees but that group almost single-handedly essentially was successful in having an additional aspect to that, which was that they would seek to achieve 1.5-degree warming and that was achieved by a group of small island states banding together and finding a common narrative, a common strategy, and they achieved not what they set out to, but they achieved partial success, which for a group of small states I think is very inspiring. Those would be my final remarks.

Mr Vernon Barrett: I endorse what my colleagues have said here. I share the frustration of the Hon. Member from the Northern Territory and quite rightly, you need to focus on a specific. If you want change to happen to effect things, build it around a project. A project is a tangible thing, it is time bound, it is resource bound, activities are awarded, people are responsible. It is an opportunity to pull in different parties who have never worked together and you focus on addressing single or a specified set of issues. That is the way really to make change occur.
A man went to the moon 50 years ago last year and came back; that had never been done before. How did he do it? My son asked me this question and back to science and data, he did it through calculations, understanding science and then you had to prepare: you do mock-ups, you do role plays, you do tests and planning and preparation on the ground, on the Earth.

So the impossible can be done, it is not all doom and gloom and, as Jack said, there are opportunities there, but you have got to start somewhere small, specific, narrow-focused. Work together, leverage bigger players because there are partners out there who will support your cause – you have to have that channel.

We are going to have a report generated at the end of this exercise, I understand, so in that report there is an opportunity to put in writing a specific way forward.

The Chairperson: Thank you very much. We do not have any further questions to the expert witnesses, so I thank you for your time and I thank all Committee Members and Hon. Members who took part in this exercise. Have a pleasant afternoon. Thank you.

The Committee adjourned.