

Speech: Ocean of Truth

...the great ocean of truth lay undiscovered before me.

Isaac Newton (1642-1747).

The ocean has been used as a metaphor throughout time. Isaac Newton, the great English astronomer, mathematician and physicist, is reported to have remarked, shortly before his death:

I seem to have been only like a boy, playing on the sea-shore and diverting myself in the now and then finding a smoother pebble or a prettier shell than ordinary, whilst the great ocean of truth lay all undiscovered before me.

It is time for all of us to face that ocean of truth, that we need to come together to find out more about the truth of the ocean. We have perhaps all been playing on the sea shore. We now need to face up to the challenges and realities of the ocean, and to effect a 'sea change' in the management of the ocean in the future.

I would like to pay tribute to Foreign Minister Heraldo Munoz, Environment Minister Marcelo Mena, and all in Chile, who have shown true global leadership on the agenda of Our Ocean and Bringing the Ocean and People Together. The concept of a global ocean linking us all on which we depend for our food, our livelihoods and our planet. Thank you for bringing us all together, from across the world, for this important conference.

The UK is a maritime nation, as is Chile. Much of the history, culture, and prosperity of both countries is defined by the sea. This conference is of course focussed on marine conservation and protection, but part of the challenge is that we have to collectively take that agenda forward in a world where the ocean is also vital for global prosperity and global security. For the UK 95% of our trade in goods comes across the sea and through our ports. The sea is vital for our economy. Our Royal Navy, plays a vital role in the world, in ensuring security, and protection of our peoples, enabling trade to happen in a globalised world and helping on some marine protection issues. It is also very good to see representatives of the Armada de Chile at this event, and to learn more of their important work.

The sea is something that unites us all, wherever we are in the world. As we have learnt at this conference, the ocean defines our world, occupies two thirds of our planet, ensures the air we breathe, drives the climate we live in, the food we eat and unites our common humanity. Ultimately our world depends on the sea.

But we know relatively little of the truth about the ocean. We know more of

the stars in our skies – and not least due to the world leading astronomy facilities and international collaboration, here in Chile – than we know about the depths, flows and contents of our oceans.

This conference of IMPAC4 focuses on Marine Protected Areas (MPAs). Important and precious assets in our global ocean. It is only about understanding more about the ocean, its depths, its resources, its challenges – and our impacts on it – that we can start to understand the truth about our planet and how best to develop it and preserve it for future generations. The talks and exchange of ideas on MPAs and Global Change, MPAs and Coastal Communities, Management of MPAs, are vital in helping to develop a shared vision of the future.

All these themes are important for the UK and Global Britain. It may come as a surprise to many of you that the UK with its Overseas Territories are custodians to the fifth largest marine estate in the world. The UK has specific constitutional and legal responsibilities for the 14 Overseas Territories and a responsibility to ensure their security and good governance, through a partnership approach based on shared values and a right to self-determination. Through the Blue Belt initiative we are committed to protecting and conserving the marine environments of the UK Overseas Territories. By 2020 we are committed to protecting around 4 million square kilometres of ocean.

In 2016 the UK announced the designation of protected areas of over 444 km² around St Helena, and 840 km² around Pitcairn; and a commitment to designate marine protected areas around Ascension – 445 km² by 2019 and Tristan da Cunha – 750km² by 2020. The UK has previously declared MPAs in British Indian Ocean Territory; South Georgia and South Sandwich Islands; and the UK led internationally agreed MPA on the South Shelf of the South Orkney Islands through the Convention on the Conservation of Antarctic Marine Living Resources.

Sharing ideas, experiences and developing plans for the future is an important part of this conference. It is one thing to designate MPAs. It is another to protect and preserve them. The UK has some experiences in the challenges involved, which we are keen to share, and we are also keen to learn from others. We also have some world leading science and technology and expertise in marine conservation and protection. The British presence at IMPAC4 includes some 30 scientists, technology leaders, NGOs and policy makers. Our speakers include:

CEFAS – the Centre for Environment, Fisheries and Aquaculture Science is a world leader in marine science and technology, providing innovative solutions for the aquatic environment, biodiversity and food security.

MMO – The Marine Management Organisation licenses, regulates and plans marine activities in the seas around England and Wales, to ensure all activities are carried out in a sustainable way. The MMO is experienced in marine management and also has responsibility for fisheries management.

NOC – The National Oceanography Centre is one of the world's top

oceanographic institutions. It undertakes world leading research in Marine Geoscience, Marine Physics and Ocean Climate, Marine Systems Modelling, Ocean Biogeochemistry and Ecosystems, and Ocean Technology and Engineering. It also includes the British Oceanographic Data Centre, the National Marine Equipment Pool – Europe's largest fleet of autonomous and robotic vehicles and manages two state of the art research ships.

BGS – The British Geological Survey is world leading, providing science and advice to government and research to understand earth and environmental processes.

Tomorrow evening the Satellite Applications Catapult centre, will talk about some of their work to help combat illegal fishing – an economic problem and a global security problem.

A number of other UK researchers and policy makers are talking in various sessions of the conference. Through the Embassy we can put you in touch with these and other organisations and experts in the UK. Come and visit the UK stand in the pavilion.

Our Government Chief Scientific Advisor will soon launch a major Foresight report on Future of the Sea. This has been the subject of wide consultation in the UK and covers the resources and economic potential of the sea; environmental issues; and governance of the sea. It is hoped it will encourage further debate and development of priorities across government on ocean and maritime issues. Areas where we hope we can develop further links with Chile.

I quoted Sir Isaac Newton at the start of this talk. Newton was one of the early Presidents of the Royal Society – the oldest learned society in the world. The Royal Society has just published an important report on Future Ocean Resources: Metal Rich Minerals and Genetics – and considering the balance of exploitation and sustainability of resources is another important issue for international consideration and collaboration. Our international science collaboration fund is called the Newton Fund, through which we have developed a number of collaborations with Chile, and we look forward to working in future partnerships to tackle global challenges.

Shakespeare in *The Tempest* coined the phrase of 'sea change'. All of us in the tempest of this changing world need to collaborate together on the challenges of the ocean, marine protection and conservation and encourage a sea change to discover that great ocean of truth for our future world.