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The Academy's 202nd Commemorative Meeting

Principal speech

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Your Royal Highnesses

Esteemed Fellows of the Academy

Ladies and gentlemen

Citizens of Planet Sea

Do you know how many international agreements are in place to regulate and protect the world's seas?

We have the UN Convention on the Law of the Sea from 1982, the FAO Code of Conduct for Responsible Fisheries and the UN Convention on Highly Migratory Fish Stocks from 1995, the FAO Port State Measures Agreement from 2005, and the UN Convention on Biological Diversity. We have the International Tribunal for the Law of the Sea and the International Seabed Authority and recently a special unit at Interpol was established to tackle illegal fishing at international level.

But despite all these agreements and cooperative bodies, the seas' development is heading in the wrong direction. Stocks of large predatory fish have declined by at least 70 per cent in 50 years, illegal fishing accounts for 20 per cent of the world's catch, there are soon more microscopic plastic particles than plankton in the seas. Environmental pollutants are transported with the giant ocean currents around the planet, and ocean acidification – caused by human emissions of carbon dioxide in the atmosphere – threatens coral reefs and all organisms with calcareous shells and skeletons, and right now the biochemistry of the seas is changing at a rate never before seen in the history of the planet.

Why are the measures we have taken so far not working? One of the most frustrating moments of my life occurred the other year when I was an observer at the UN agriculture agency, FAO's annual meeting on fishery issues. The first item on the agenda dealt with the implementation of the FAO Code of Conduct for Responsible Fisheries, and the long-suffering chairman began by giving the representatives of the world's countries a reprimand since only 36 per cent of the countries had bothered to answer FAO's questionnaire about how they had progressed with the implementation. And, of those that had actually answered the questionnaire, it was only a minority that had made any progress, and no one at all had lived up to their commitment. When I had recovered from this surprise show of indifference from the world's countries, I then followed an even more excruciating discussion about a ten-year-old process within the FAO to establish a global register of fishing vessels, which

would make it far more difficult for rogue ships to conceal their identity by renaming and reflagging whenever they felt like so doing. But when a number of countries, including Canada, Australia, New Zealand, Norway and the EU had all spoken warmly of the idea, it suddenly fell dead to the ground when China took to the floor.

“Well”, they said, “not all boats, we think only boats over 24 metres should be included in the register.”

“Hmm, perhaps not all boats over 24 metres, just those that stay in international waters.”

“Well, not a *mandatory* register, but a voluntary register could, perhaps, be a good move.”

Other countries, including India, then took to the floor to support China, and suddenly it seemed as though the most obvious of obvious ideas – a global register of fishing vessels – was enormously complicated and it was difficult to obtain a consensus. Because that is how it is done: everything that is regulated on the world’s seas is done by so voluntarily by countries. If you don’t want to join in, you don’t have to. And, if someone does not want to join in, then no one wants to join in. The result is that the least willing countries in the world today dictate the pace for all types of regulation.

During my five years in the European Parliament, I have often worked with international maritime affairs and have noted that there are many who actually want to raise these issues, but far from all do it with the aim of protecting the seas, instead the starting point appears to be to find ways to exploit all the resources lying out there, which currently do not belong to anyone. We are talking about minerals on the seabed, unexploited biological and genetic resources in the deep seas, we are talking about oil and gas, sand, diamonds, hydrogen hydrates and fish.

The oceanic crust on our blue planet is limited and many major stakeholders and nations regard the seas as the new final frontier. Of the estimated 100,000 seamounts, only 400 have been studied in any way to date. Each new deep-sea expedition reveals hundreds of new species, mostly microscopic, with unique characteristics. Some can manage entirely without oxygen, some live at freezing point, others at boiling point. Strange underwater chimneys spew out substances from the Earth’s interior into the water: mining companies’ prospecting is already in full swing.

But how important is it then, to find new ways to protect the world’s seas? To answer that, I must first remind you about their size – I believe there is no limit to how many times that can be done. We call the planet the Earth in every language I know – *jorden, la terra, die Erde* – but 72 % of the planet’s surface is seawater; and 97 % of all living space. Two thirds of all this is made up of international waters – i.e. seas, animals, organisms, minerals and seabed and all that lies beneath – which is not owned by anyone, and is protected by virtually no one.

Unfortunately, however, it is not so that the third of the seas that on a map belong to different nations have adequate protection. The water itself does not care about national borders, nor do the animals or all the substances that are to be found therein. A bluefin tuna tagged with a transmitter swam through no less than 43 different national waters during its life.

One of the most staggering phenomena on Earth, I believe, is the so-called thermohaline conveyor belt, a kind of planetary circulation system that connects us all. There are underwater rivers which are twelve times greater than all of the land-based watercourses and which cascade alternately at a depth of 2,000 metres, alternately near the surface of the sea – driven by the trade winds and the Coriolis effect, i.e. the planet's rotation. There are four large convection areas at the poles; a kind of pumping cardiac muscle where warm water from the Equator cools, becomes heavier and sinks into the depths. The amount of water that pours down in each moment corresponds to 20,000 Niagara Falls.

20,000 Niagara Falls! Imagine if we could see them – what a tourist attraction!

When the cold water from the poles has reached the bottom the pace slows, and it floats so slowly, slowly back towards the Equator where it rises up again, maybe a thousand years later. Most of these so-called upwelling regions are on the west coasts of the continents, off Peru, California, Namibia and western Australia – which is due to the fact that the Earth spins eastward. The water that wells up is cold and nutrient-rich. The nutrients come from organic material that has fallen down onto the deep seabed and which the conveyor belt carries back into the circular flow again, where it becomes food for fish – fish that becomes food for humans. A very large proportion of all fish catches on Earth occur in upwelling regions.

The conveyor belt also pumps oxygen, carbon dioxide and all other substances that can be dissolved in water upwards and downwards. And it transports energy. Every moment ocean currents transport a thousand billion watts of heat from the planet's warmer seas to its colder ones; this is 600 times more than all the power plants in the world produce together. The sea is the planet's salty bloodstream, it keeps us warm and alive, marine organisms produce more oxygen than land-based vegetation can, the sea contains 1.37 billion cubic kilometres of water which contains so many microbes and viruses that if you were to put them together to form a long microscopic thread it would be 200 million light-years long – and these are such infinitely large numbers that it seems utterly impossible, utterly ridiculous that any human being could ever do anything that could affect all this in anyway at all.

But we can.

Last autumn an article entitled *The Ocean is Broken* spread like wildfire around the world via social media. It concerned an interview with an Australian yachtsman in his 50s, Ivan MacFadyen, who describes himself as an ordinary man – definitely no environmentalist! – and who sailed from Brisbane, Australia, via Osaka, Japan, and across the Pacific Ocean to the US west coast.

He and a fellow yachtsman had sailed exactly the same course ten years ago, and at that time had a pleasant, carefree trip across the ocean, constantly accompanied by birds and had experienced no problem in catching fish: every day they caught fresh fish. “But now”, he says shocked, “the ocean was like a desert!” The birds were gone, the silence was eerie and during the entire voyage – 37,000 kilometres – they only manage to catch two fish. However, they see rubbish everywhere. Enormous amounts of rubbish, ranging from telephone poles to toys, fishing nets, car tyres, huge amounts of debris that appear to be the aftermath from the Japanese tsunami. When they sail over the Mariana Trench, the deepest point in the Earth's oceans, they see debris in the clear waters, not just on the surface but deep down in the depths, at all levels.

At one point, however, they see life: a gigantic trawler working day and night; at night glowing like a city on the horizon. Unexpectedly, they receive a visit from a small motor-boat, and a couple of men from the crew want to give them a gift: several large sacks of fine, fresh fish. They thank the men but say they cannot take so much; they have no refrigeration. The men shrug their shoulders – “yes, yes, but throw the fish away then, that’s what we do otherwise. We’re fishing for tuna, that is just rubbish, bycatch – we don’t want it back.” MacFadyen, an ordinary man – definitely no environmentalist – who has not caught a single fish on the entire trip so far, is shocked.

The next shock during the trip comes when they see a whale. As they come closer, they see how it rolls helplessly on the side, and is clearly sick – it has what looks like a large tumour on its head. Ivan MacFadyen is asked in an interview how this made him feel. “Sick”, he says. “Sick to my stomach.” And he declares once again that he is just an ordinary man, but that he feels like crying when he thinks about it.

I have heard other, similar accounts, friends of friends who say they are noticing how the South Atlantic has also grown silent in recent years, and how the rubbish is constantly visible. And I have seen a documentary about Thor Heyerdahl’s grandson, who in 2006 retraced his grandfather’s classic voyage across the Pacific Ocean on a balsa raft, and who became extremely depressed over a detail in the film. I remember so well Thor Heyerdahl’s own colourful depiction of the voyage in a book from the 1940s, how the Kon-Tiki raft is practically invaded by flying fish, curious schools of fish, whales, turtles and dolphins, and sharks that are constantly nibbling on fishing lines. In the 2006 film, Heyerdahl’s grandson inspects the fishing line that floats behind the raft every day without result. Only after 54 days at sea does a small, famished shark show up, that is all. For the rest of the voyage, there is nothing.

The American environmental activist Aldo Leopold once wrote that it is impossible to become involved and have an ethical approach to something that you do not feel anything for, and it is impossible to feel anything for something you do not know. And that, I believe, is the big challenge we currently face regarding the sea – to communicate to each other how everything is connected. How nothing on this planet is so big that we may with impunity plunder and pollute it – without it affecting us, or our children, in the end.

Many people say to me that this is a futile task, that people have so many other problems that lie closer to them, and according to the more populist logic of politics this means that maritime issues will never be so high on the political agenda that anyone will invest political capital in doing something about the issue.

But I am an optimist. I myself have seen how public opinion in a country changed after my book *Tyst Hav (Silent Seas)*, was published in Sweden in 2007, and I myself have seen how last year a majority of the European Parliament could take a U-turn and take a stand for a brand new sustainable fisheries policy in Europe. I no longer believe in what Axel Oxenstierna said to his son: “If you knew my son, with what little wisdom the world is governed.” I want to say to my son who is here with me this evening that there is hope! Like Aldo Leopold, I believe that knowledge, mediated in the right way – so that it engages us – leads to commitment, not necessarily for own benefit, but because it is right.

Another of Leopold's most famous quotations is deeply optimistic: "Ethical behaviour is doing the right thing when no one else is watching, even when doing the wrong thing is legal". People such as Ivan MacFadyen, ordinary people, yachtsmen, professors, sailors, divers – there are so many out there who want to do the right thing even if it is still legal to do the wrong thing, and when a lot of people want to do something – hey presto! – then politicians also want to do something.

I know this. I also know that nothing happens by itself. It takes personal commitment, and it takes leadership, and, not least, political solutions. I noted another thing in Ivan MacFadyen's story which also gave me hope, and that was that he had seen during his voyage that the birds and the turtles returned to a point in the Pacific Ocean, as they neared Midway Islands – where the US has introduced a large marine protected area. In other words, there is nothing mysterious about this: actions, political decisions, provide visible results.

What do we need today in order to save the seas? Above all, we need to reverse the logic that applies today, which is a remnant from earlier centuries when the sea was considered to be immeasurably large and everything at sea would be free. Today still, everything is allowed at sea until it is regulated, and then the rules only apply to those countries that have ratified them.

I believe it should be the other way round. Nothing in international waters should be free. That which has not been carefully regulated, should not be touched, and those who have not ratified the regulations should have no right to use any of the resources at all.

Within the framework of the Convention on the Law of the Sea we already have an agreement, which states that the international seabed and that which lies beneath is the heritage of humankind, and I believe the term should also include the water column, and that the meaning of the word heritage should be interpreted to literally mean that it belongs to future generations. Instead of battling to designate small areas of marine reserves we should do the opposite. Turn all international waters into one global marine reserve, and possibly agree on smaller areas where fishing or other activities may be permitted, and where the international community also cooperates to supervise the activities.

We also need an international strategy to reduce emissions into the seas, both plastic waste and chemicals. We need to find alternative plastic materials that are biodegradable. Last but not least, we must stop carbon emissions, which affect the sea negatively, in ways that few have yet understood the extent of.

We are all different and absorb information in different ways. Some people allow themselves to be convinced by economic arguments; others are influenced by images or feelings. But nobody seems able to defend himself or herself against a self-perceived experience. I find it totally fascinating that almost all astronauts who have seen the planet from space, who have seen how the blue planet hangs there in the black emptiness, have undergone a fundamental change, a phenomenon that has been dubbed *The Overview Effect*. National boundaries are not visible from space, and it is quite obvious that there is just one Planet Earth and that it is alive. The blue and green thin shimmering membrane of life strikes them as one absolutely spectacular exception in a completely dark and deserted space, and they feel deeply that we all belong together.

The more I understand how modern society works, the more convinced I am that nothing other than a global conscience will do. We all belong together, economically, culturally and ecologically. The sea that embraces us, and is present in us all, down to the fluid in our cells, is possibly the most tangible thing that unites us. The sea belongs to everyone or no one. The sea lashes against us from every coast on every continent and demands something from us. The Sanskrit term for sea is “Samudra”, which means the gathering together of waters – all waters; rivers, lakes, the water in clouds and the tears in our eyes all form a part of this water. Man is made up of 65 per cent water. Everything is connected. We are also made up of – the sea.

Your Majesties, esteemed Fellows of the Academy, I believe that we who are here can agree that the sea offers us an opportunity, an opportunity for global awareness and solidarity. And a promise of fantastic, future voyages where whales, dolphins and blazing mahi-mahi again shoot skyward, where albatross watch over our small boats on the immense blue expanse – which embraces us, feeds us, gives us oxygen, cools us and warms us.

Two years ago in Rio de Janeiro the world gathered at the Rio+20 Conference on sustainable development. One of the negotiations that actually went on there was to do with a new treaty for the protection of biological resources in international waters, and I attended as an observer on behalf of the European Parliament in an air-conditioned grey room without windows, and again felt extremely frustrated over the tiny steps the worlds’ countries could agree to take. A strange alliance between the United States and Russia obstructed throughout, with Norway, Canada and certain Pacific Rim countries as clear sympathisers.

What negotiators finally agreed was that within two years – i.e. this year – a decision would be taken within the UN to start negotiating a new treaty under the Convention of the Law of the Sea for the protection of biological resources in international waters. A tiny step forward, but with all of your help maybe people can start to understand that these negotiations are not unimportant technicalities, but a chance for mankind to demonstrate a sense of responsibility, a chance to instil in us all at least one drop of the overview effect.

Let us take this opportunity.

Thank you

Isabella Lövin