



## Sea change: a talk with UN Special Envoy for the Ocean, Peter Thomson

Access the podcast at:

<https://doi.org/10.1787/a5cac3f2-en>

### Please cite this podcast as:

OECD (2019), "Sea change: a talk with UN Special Envoy for the Ocean, Peter Thomson", *OECD Podcasts*, Duration: 12:48, OECD Publishing, Paris, <https://doi.org/10.1787/a5cac3f2-en>.

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**Duration:** 12:48

**Date:** 13 April 2019

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the Ocean, Peter Thomson**

**Clara Young** [00:04] Welcome to OECD Podcasts where policy meets people. I'm Clara Young. In today's podcast, we're diving into the sea, biodiversity, and climate change with Peter Thomson who is the UN Special Envoy for the Ocean.

About 70% of the Earth's surface is covered by the deep sea and intertidal marshes, seagrass beds, lagoons, and mangrove forests.

The UN estimates that these marine ecosystems support some \$3 trillion US dollars in goods and services every year, but climate change and man-made pollution, especially plastics, is jeopardizing all that. So thanks, Peter, for coming in.

**Peter Thomson** [00:41] Thank you, Clara.

**Clara Young** [00:43] What role do oceans play in the domino effect of climate change?

**Peter Thomson** [00:47] Well, yes. I tend to think of it in the other way around, of course. What effect does climate change have on the ocean? The fact is the two are intimately connected I come from Fiji. You know, we see the clouds above the lagoon. They form, and they blow up against the mountain, and down comes the rain, and that goes in the river and back into the ocean.

But going back to your question, how does the ocean affect climate? Well, I just think, for example, the fact that probably 30% of the CO<sub>2</sub> caused by GHG emissions have been absorbed by the ocean.

90% of the heat that's been caused by GHG emissions has been absorbed by the ocean. But there's a limit to that.

**Clara Young** [01:30] Right. There's also a lot in the news about the acidification of the oceans and how this is causing coral reefs to die. What's causing the acidification?

**Peter Thomson** [01:39] Well, again, that's GHG emissions, you know, CO<sub>2</sub> levels in the atmosphere. The CO<sub>2</sub> gets absorbed into the ocean and causes the acidification process. As for the effects of a more acid ocean, and, you know, this is not conjecture. We've scientifically observed many decays now, the fact that the ocean is getting more and more acid. And, in fact, it's doing so in increasing trends. What is the effect of that on the ocean? Well, for coral, it's not great news. Any calcium carbonate-based life like shellfish or invertebrates, makes life in the ocean a lot more difficult for them.

**Clara Young** [02:17] For those of us who don't know, why do coral reefs matter other than for tourism?

**Peter Thomson** [02:21] Look, coral reefs are the bunkers of biodiversity for the ocean. They support millions and millions of life forms. I come from a coral coast. And, you know, when you know what a healthy reef looks like, it is one of the wonders of nature. And to contemplate a world where there is no coral reefs is just mind-boggling, you know. It's just like saying, there will be no forests left on land.

But that is the reality of what we're facing. The IPCC report which has just come out, the 1.5 degrees report says--well, IPCC, it's a conglomeration of all our best scientists on these subjects, have said that when we go beyond a 1.5-degree world--and we're heading towards a three-degree world at the moment--by the time we get to a two-degree world we lose coral reefs.

It's not just the beauty that goes. It's, in the end, our own health on planet Earth. Because take out that level of biodiversity from the ocean, and we're just not sure that the health of the ocean will be able to sustain that. And if the healthy ocean is not there, then we have no health on land. Every second breath that we take comes from oxygen produced by the ocean. So it's time for us to get alert, and make some radical changes.

**Clara Young** [03:38] One way that has become increasingly dominant about trying to restore the health of the ocean are marine-protected areas and wetlands and marshes and lagoons that I mentioned in the introduction. The OECD published a report in 2017 about marine-protected areas as a way for us to adapt to climate change and protect biodiversity. Why are they important?

**Peter Thomson** [04:05] Well, you know, I was very grateful to OECD the last time I was here for the receipt of that report. You know, marine-protected areas, it's just basic logic. We have the good science which shows us how effective they are in protecting and restoring life in the ocean.

At the moment, we are working towards getting 10% of the world's oceans covered by next year in marine-protected areas. And the chances of us doing that are very, very good. About two years ago, we were down at around the 5.7% level. Now, according to UNEP's (United Nations Environment) figures were up at about 7.5, but commitments that I'm aware of, I think we'll get to that 10% figure.

But please believe me, that is by no means enough. We shouldn't congratulate ourselves too much on getting there as I believe we will in 2020. We've got to move on to 30% of the ocean because that's what science tells us is going to be the right level to maintain and conserve life in the ocean. 30%, very doable. You know, there are large parts of the ocean which are not productive. That wouldn't hurt at all to make them marine-protected areas. But obviously, we're interested in areas where fish are breeding and where life is dense, and protect those areas as well. And I'm thinking in particular about Antarctica there.

**Clara Young** [05:31] These coastal areas, these intertidal zones and marshes are also very good for sequestering carbon. For example, mangrove forests, and seagrass beds. Could you talk about that a little bit more?

**Peter Thomson** [05:44] Yeah, you're 100% right there. The mangrove forests are 4% more effective in carbon sequestration than land-based forests. Seagrass just so important to the whole blue carbon sequestration processes. And don't forget land-based wetlands on coasts but also within—inside lands--and the Ramsar Convention addresses this--these are absolutely vital to first of all, a healthy ocean and down to the marine ecosystem but also the coastal ecosystem.

It's absolutely vital that we have the filtering processes which wetlands provide. By next year, through SDG 14, we're committed to better managing our marine coastal ecosystems. And we won't do that without mangroves being protected and restored and for wetlands being protected and restored.

**Clara Young** [06:44] So that's the United Nations Sustainable Development Goal 14.

**Peter Thomson** [06:48] Yep. To conserve and sustainably use the resources of the ocean.

**Clara Young** [06:53] OK. Now, moving on to the cost. To be able to protect marine environments, 10%, costs over 600 billion US dollars, and governments are quite stretched already in terms of their budget. So how can we finance these projects in an innovative way?

**Peter Thomson** [07:14] OK. That is small money compared with the returns that you would get from the tourist industry, for example. It's very small money. When you consider, for example, that trillions of dollars are going to have to be spent on marine coastal infrastructure, trillions of dollars because of rising sea levels, that is small money. But, you know, consider also the cost of not having those marine-protected areas and letting that biodiversity just die away. I mean, the economics of it are very clear.

**Clara Young** [07:44] As well as coastal damage. These marine parks also protect against destructive storms and hurricanes.

**Peter Thomson** [07:51] Quite right, quite right. I mean, the fact of mangrove forests, for example, in mitigating storm damage is huge. Without them, coastlines are extremely exposed, or you have to build storm-capable resisting seawalls in their place. Again, the value of natural capital like mangroves can't be overestimated.

**Clara Young** [08:15] The Seychelles Islands issued something called the blue bond. And that was hailed as quite a successful financial instrument for financing a marine park. Could you give us some details about that?

**Peter Thomson** [08:30] Yeah, Seychelles always been very innovative when it comes to marine matters, and I applaud them for that blue bond. And I believe other countries, I think even my own country, Fiji, are following suit in terms of that. The engagement in the finance sector with the sustainable blue economy is a very important part of our work as we approach 2020. And it's not just blue bonds, you know, it's how to get blended finance into a whole gamut of sustainable blue economy.

**Clara Young** [09:00] Now, turning to plastic, last year, we learned that there's plastic even down at the bottom of the Marianas Trench which is the lowest point in the ocean, and we know that a dump truck of plastic goes into the ocean every minute. There is ocean and coastline cleanup of plastics, but is that enough? What else can we be doing?

**Peter Thomson** [09:18] I applaud the effort of the people who are cleaning up the ocean and cleaning up beaches and so on, but it's a tip of an iceberg stuff, especially when you look at microplastics and microfibers coming off our clothing. And so yes, they have permeated the ocean down the Mariana Trench, but also from the Arctic to the Antarctic. So the cleanup job is obviously a massive one to be undertaken.

The answer to the problem is to stop the plastic plague from entering the ocean in the first place, and that's where the work has to be done.

A lot of corporations and governments are now moving towards circular economy approach for plastic, eradication of the use of single-use plastic. I mean, it's just, you know, very sad that humanity got to where we got to on single-use plastic. But thankfully, a lot of governments, a lot of developing countries-- [INAUDIBLE] too, and so on-- banning the use of single plastic altogether.

**Clara Young** [10:12] Including the EU, I think.

**Peter Thomson** [10:14] Yeah, I think the EU's also moving fast in that direction. So it's what we do on land. You know, as somebody from Dow Chemical this morning was telling me, the plastic has no place in the environment. It's a valuable commodity which has to be circulated on land, and it certainly has no place in the ocean.

**Clara Young** [10:32] We also need to step up our recycling. I think only 1/5 of plastics are recyclable now or are recycled.

**Peter Thomson** [10:40] Yes, absolutely. That's where the energy and ideas have come.

**Clara Young** [10:43] The OECD recommends that new plastic be taxed, and that's one recommendation for dealing with that. Are you seeing plastic taxes come into use--new plastic taxes?

**Peter Thomson** [10:53] As I said, there's no silver bullet. There are lots of different models. The UK government has had quite a high level of success from just putting a tax on plastic bags, for example.

**Clara Young** [11:03] Peter, you grew up in Fiji, right next to the ocean, I assume.

**Peter Thomson** [11:07] Sure.

**Clara Young** [11:08] When did you start working on conserving the ocean?

**Peter Thomson** [11:13] In Fiji, you know, the ocean's part of your daily life. Probably my first conscious thoughts, if you have conscious thoughts in the womb, were when I was being transferred from one arm to the other by my mother in a small boat so she'd go and give birth to me in Suva. And, you know, I've just lived with the ocean all my life.

You know, for somebody that values the ocean, which I hope is the great majority of us, you have to start taking action because the ocean is in deep trouble. When did I become most aware? I guess when I became Fiji's Ambassador to the United Nations in 2010, and we started working on the formation of Sustainable Development Goal 14-- the Ocean Goal.

And then when I was president of the General Assembly, I was able to bring in that first Ocean Conference that was held in 2017 which was a game changer in terms of ocean action. So yeah, I think I can place all that back, though, to my beginnings in Fiji as to my passion for it.

**Clara Young** [12:13] Thanks Peter. And thanks for listening to OECD Podcasts. I'm Clara Young. To learn about OECD work on oceans, go to [oecd.org/environment](https://oecd.org/environment). And to listen to other OECD Podcasts, find us on iTunes, Spotify, Google Podcasts, and [SoundCloud.com/oecd](https://SoundCloud.com/oecd).