

Keynote Speech by Ambassador Peter Thomson, UNSG's Special Envoy for the Ocean, at the International Seaweed Symposium (ISS2023), Hobart, 21 February 2023

"Innovation for Impact. The Contribution of Seaweed to the UN's Sustainable Development Goals"

Ladies and Gentlemen,

All courtesies observed. Thank you to the organisers for the invitation to speak at this event. May I say from the outset, that I find myself here at the International Seaweed Symposium amongst people whom I regard as heroic pioneers of our civilization's move from terrestrial preoccupations, to a future which will rely on the ocean for sustenance, health, and energy.

This symposium is timely, for it is being held at a juncture of human history in which food security and transition to renewable energy have become challenges of an existential nature for our species. The Secretary-General of the United Nations has declared that we have been waging war against Nature and that its time to make peace. He says we are on a road to climate hell, to a world that will be unliveable for our grandchildren if current projections of close to three degrees global warming eventuate.

Meanwhile the number of humans on the planet has reached 8 billion, four times the number it was when I was born. Our activities, principally the burning of fossil fuels, have led to 50% of the world's coral reefs being destroyed, 66% of the planet's rainforests gone, and have brought millions of species to the brink of extinction. The implementation of workable solutions for a sustainable future for humankind is the great challenge of our times. In that regard, the time is fast approaching when linear exploitation of finite planetary resources will come to an end of itself, to be replaced by the logical alternative of circularity and renewable resources. In my mind and in the minds of many more expert than me, seaweeds and algae have an essential role to play in the solutions available to us.

Ladies and Gentlemen,

I've been asked to speak on seaweed's contribution to the UN's Sustainable Development Goals, so let me address that first. There is no doubt that multiple SDGs are well served by seaweed, with UN Global Compact recently setting out the case in their Seaweed Manifesto, demonstrating seaweed's contributions to food safety and security, climate change mitigation, poverty alleviation and support to marine ecosystems. By implication these are SDG1- no poverty; SDG2 - zero hunger;

SDG3 - good health; SDG12 - climate action; and SDG14 – marine ecosystems. But it doesn't take much imagination to also see seaweed's solid contribution to SDG5 – gender equality; SDG7 – clean energy; SDG8 – decent work; SDG9 innovation and industry; SDG11 – sustainable communities; and SDG12 – responsible consumption and production.

Much of what I have to say to you today derives from the work of the Fisheries and Aquaculture Division of FAO in Rome, and I do recommend to you all the Division's recent circular paper entitled "Seaweeds and Microalgae: An Overview for Unlocking their Potential in Global Aquaculture Development".

From that circular I learnt that in wet weight, algae, including seaweeds and microalgae, contribute nearly 30 percent of world's aquaculture production, primarily from seaweeds. Seaweeds and microalgae generate socio-economic benefits for tens of thousands of households, primarily in coastal communities, including numerous women empowered by seaweed cultivation. The characteristics of seaweed cultivation, such as labour intensiveness, low capital investments and simple farming technology, allow for the participation of many resource-poor households or vulnerable individuals, and this is particularly so for tropical red seaweed species in warm climate countries.

Of particular interest to me is the highly imbalanced production and consumption of seaweed across the world's geographic regions, which for me implies great potential for their development in geographic regions, such as Africa, where production is lowest.

The statistics bear me out. In 2020, 97.4% of world seaweed production came from Asia, followed by the Americas with 1.4%, Europe at 0.8%, Oceania at 0.4% and the whole great continent of Africa at only 0.4 %. Another interesting FAO statistic is that, including non-sovereign territories, 232 countries had fishery production (including aquaculture and fisheries) in 2020; but that among them, only 52 countries had seaweed production. I say again the potential for certain geographic regions, such as Oceania and Africa, to lift their game in seaweed production presents massive potential and opportunity for economic gain.

Ladies and Gentlemen,

In estimating the huge economic benefits seaweed will increasingly bring to humanity, let us not forget the multiple environmental benefits and ecosystem services it will also provide. By extracting nitrogen and phosphorus from surrounding waters and absorbing carbon dioxide, the photosynthetic processes of seaweeds and microalgae can mitigate eutrophication, treat wastewater, reduce ocean acidification and capture and sequester carbon. Seaweed's cultivation does not require fertilizers or scarce freshwater resources. It is eco-friendly and restorative, making it a crucial element

when we talk about sustainable aquaculture being vital to humanity's future food security.

An exponential growth in the cultivation of seaweed holds huge potential as a Nature-based solution to the causes of Climate Change. Using certain seaweeds as feed supplement for cattle farming, reduces methane emissions. As mentioned, we know that seaweed farming can help to restore damaged ecosystems, reduce carbon emissions, improve water quality and provide habitats for marine life. And as well as providing these positive benefits for marine ecosystems, seaweed cultivation has been shown to have great benefits for coastal communities coping with over-fished waters. With the necessary global spread of marine protected areas, seaweed provides an alternative source of income for affected coastal communities.

Ladies and Gentlemen,

Ten minutes is too short a time to discuss with you the full range of seaweed's benefits, and I haven't even touched upon two of my favourite examples, namely replacing plastic packing with edible seaweed derivatives and using seaweed as a healthy, biodynamic, renewable supplement to modern fertilizers.

But before I close, I'd like to stress that better governance and leadership of the seaweed and algae sector is required if we're to going to accelerate as we should towards the sector's transformational contribution to the global good. In that regard I'm pleased to learn that the mission of the Safe Seaweed Coalition (soon to be the Global Seaweed Coalition) is now hosted by United Nations Global Compact. The coalition's mission is to support the safe and sustainable scaleup of the sector, grounded in science. I hope that by the time of UNFCCC's COP28 in the UAE this November, the Global Seaweed Coalition, with an eye to bringing a carbon credit mechanism in place, will be ready to provide solid analysis demonstrating the carbon sequestration properties of seaweed and algae. The results of this work should be well and truly locked in by the time of the 3rd UN Ocean Conference to be held in Nice in June 2025.

Better governance of the global aquaculture industry, including seaweed cultivation, faces numerous challenges, including demand uncertainties, availability of suitable nearshore farm sites, labour shortages, and declining seedling quality. To lay a more solid foundation for the global seaweed industry, science-based laws and guidelines should include environmental regulations, spatial planning, food safety standards, occupational health requirements, technical guidelines and good aquaculture practices. By establishing a strong governance framework, we can ensure that seaweed farming will be sustainable, responsible, and equitable.

Market demand is the driving force behind the industry and must be cultivated through education and awareness campaigns. Meanwhile, innovation will play a critical role in developing new and improved cultivation methods, as well as new seaweed-based products and applications. And finally, public support will underpin the enabling environment that will allow the seaweed industry to thrive.

Ladies and Gentlemen,

It was Socrates who said the secret of change is to focus all of your energy not on fighting the old, but on building the new. We now know of the damage we've done to the planet and to the future enjoyment of it by our grandchildren, but let us focus on the new. Change is a constant. Let us make it change for the better and move quickly now to renewable energy, an end to plastic pollution, safeguarding what remains of biodiversity, transforming our consumption and production patterns from linear to circular, and eating sustainable foods. In all these changes seaweed and algae have an integral role to play.

I often make the point that food is fashion, just think of the global explosion of sushi cuisine since the 1990's. We don't eat what our grandparents ate, and our grandchildren won't be eating what we eat. I see a graphic example of this in my own home. When I was a kid, infants were given boiled sugar lollies to keep them content. My two-year old granddaughter has never tasted a lolly, but she loves eating strips of dried kelp when she feels like a snack.

I envisage a future of human diet that has turned away from unsustainable and harmful products like beef and sugar, to sustainable, highly nutritious foods such as seaweed. When I was young if you told me that one day I would never eat another hamburger and that my favourite food would be vinegared rice wrapped in dried seaweed, I would have laughed at you. Today, as it is for hundreds of millions of others, that is the way it is, and I'm more than happy about the change.

I thank you for your kind attention this evening.