From: Randall Purcell <randall.purcell@seafields.eco>
Sent: Wednesday, 24 May, 2023 23:09
To: Supervisory-Body <Supervisory-Body@unfccc.int>
Subject: Input to SB005 Annotated Agenda and Related Annexes

Dear UNFCCC Delegates:

We are writing - joining many other science-based carbon removal initiatives - on behalf of ocean-focused solutions for carbon removal. We believe these have the best potential of removing the gigatons of carbon the IPCC says is necessary before 2050 under the most optimistic emission scenarios.

The oceans offer a huge opportunity to sequester and safely store carbon dioxide, restore ocean ecosystems and enhance coastal livelihoods in the developing world - an opportunity that is massive compared to that of terrestrial counterparts.

The ocean already holds more carbon than any other part of Earth's biosphere and has the potential to contribute much more. The sheer size of the ocean means that any ocean-based carbon dioxide removal solutions proven to be viable and safe have the potential to go to the scale needed.

A number of ocean-based CDR approaches are being explored, each requiring additional research and testing under a regulatory and governance framework that a sensibly crafted Article 6 can provide.

At Seafields, we plan to permanently sequester CO2 and store it in the deep ocean, reducing emissions while restoring ocean productivity and increasing biodiversity. Our approach consists of growing and harvesting Sargassum seaweed, processing its biomass to extract nutrients and replace fossil fuel products, and baling and sinking the carbon-rich residual to the deep abyssal plain where it will stay virtually forever.

Sargassum inundations have a devastating effect on Caribbean and West African countries, harming tourism, fisherfolk, human health and coastal ecosystems. At the same time, the fast-growing seaweed can provide a huge amount of biomass for carbon dioxide removal and can be an important source of CO2 replacing products.

In the initial stages of our operation, we will harvest and utilize Sargassum in the Caribbean and then sink any residual biomass we cannot use. At a later stage, aiming to sequester 1gt annually, we will grow Sargassum in the open ocean using artificial upwelling of nutrient rich waters which will contribute to reversing ocean stratification (the result of warming) and restore marine biodiversity in what are now ocean deserts.

We are running out of time to commercialize scientific advances in order to scale carbon removal. Seafields and other nature-based ocean approaches require an international policy regime that allows us to learn as much as we can as quickly as we can while doing no harm.

Best regards,

Randall Purcell
Co-Founder and Director