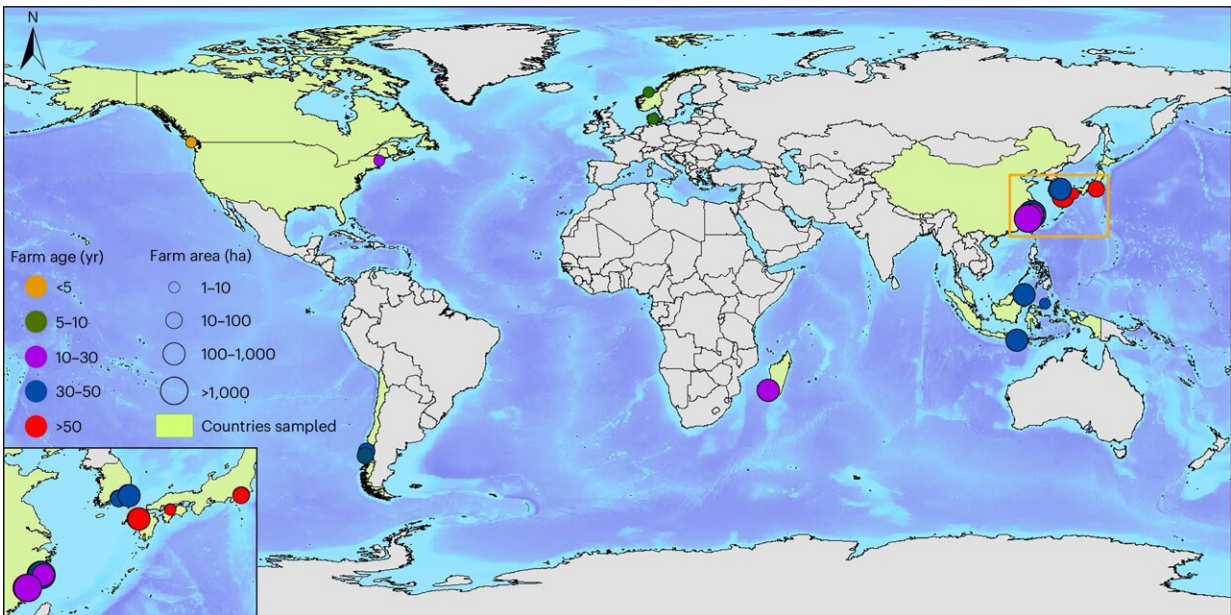


Seaweed farms show potential for carbon storage that gets better with age

January 24 2025, by Bob Yirka



Location of the sampled seaweed farms, the time (years) elapsed since the onset of farming and the size of the harvested area (ha). Credit: *Nature Climate Change* (2025). DOI: 10.1038/s41558-024-02238-1

A large international team of researchers with a wide variety of backgrounds has found evidence that carbon storage below seaweed farms can accumulate as much carbon as some Blue Carbon habitats. In their study [published](#) in *Nature Climate Change*, the group analyzed data from multiple seaweed farms around the globe.

As climate change progresses, scientists seek new ways to remove carbon from the atmosphere. Many in the field have noted that a natural or at least semi-natural approach would likely be more accepted due to lower costs. Replanting forests, for example, would be cheaper than building millions of carbon-capture machines.

For this new study, the researchers looked at the possibility of using [seaweed](#) farms to pull carbon from seawater, which would presumably allow the world's oceans to absorb more atmospheric carbon without causing catastrophic side effects such as global coral die-offs.

The work involved analyzing data collected by operators of 20 seaweed farms around the world. The researchers note that the farms they studied ranged in age from 2 to 300 years old and that they ranged in size from 1 to 15,000 hectares.

According to the data, which included measurements of carbon sequestered below the seaweed, there was more carbon sequestered in the older farms than in the newer ones. The researchers found that some of the oldest farms sequestered as much as 140 metric tons of carbon per hectare. They also found that the average amount of carbon buried below all the farms they studied was approximately double that of sediment beds located near the farms.

The researchers suggest that seaweed farming, especially in places where sediments naturally build up, can sequester carbon at rates near to those of some coastal environments, such as [mangrove forests](#).

More information: Carlos M. Duarte et al, Carbon burial in sediments below seaweed farms matches that of Blue Carbon habitats, *Nature Climate Change* (2025). [DOI: 10.1038/s41558-024-02238-1](https://doi.org/10.1038/s41558-024-02238-1)

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