

2023 Miami Oceans Debates

Acceleration of open ocean aquaculture development would be desirable.

“Does humanity's future lie in the ocean? As demand for resources continues to grow and land-based sources decline, expectations for the ocean as an engine of human development are increasing. Claiming marine resources and space is not new to humanity, but the extent, intensity, and diversity of today's aspirations are unprecedented.”

The quote above is from a 2020 article that members of the Stockholm Resilience Centre published in *One Earth* entitled, “The Blue Acceleration: The Trajectory of Human Expansion into the Ocean” (Jouffray, J.-B., Blasiak, R., Norström, A. V., Österblom, H., & Nyström, M., 2020). Jouffrey et al. (2020) define “blue acceleration” as “a race among diverse and often competing interests for ocean food, material, and space.” While aquaculture is just one aspect of the ‘blue acceleration’, it is a crucial one that raises important questions regarding food sustainability and the ocean ecosystem. The idea of aquaculture is not new, but the expansion of aquaculture into the open ocean is relatively recent. With technology becoming more economically viable, the idea of large scale commercial open ocean aquaculture development is becoming reality.

Thus, we invite you to Miami to debate the proposition: **Acceleration of open ocean aquaculture development would be desirable.**

NOAA (2023) defines aquaculture as the, “[B]reeding, raising, and harvesting fish, shellfish, and aquatic plants. Basically, it’s farming in water.” The debate itself is not about the desirability of aquaculture in general, but rather, we imagine many debates over the various environmental benefits and drawbacks of different locations of aquaculture. The topic does not specify a particular type of aquaculture (e.g., finfish, shellfish, aquatic plants, etc.), but rather its location. There are three main locations for aquaculture to exist: onshore (land-based), near shore (just off the coast), and offshore (open ocean).

A Congressional Research Service Report (Upton & Buck, 2010) broadly defines open ocean aquaculture as, “[T]he rearing of marine organisms in exposed areas beyond significant coastal influence.” Belton, B., Brown, J., Hunter, L., Letterman, T., Mosness, A., & Skladany, M. (2004) more specifically define it as, “[T]he rearing of marine organisms under controlled conditions in the EEZ—from the three mile territorial limit of the coast to two hundred miles offshore.” Since these are the “Oceans Debates”, we selected the term ‘open ocean aquaculture’ though much research in this area uses the term ‘offshore aquaculture’. However, as Belton et al. (2004) note, “The terms ‘open ocean aquaculture’ and ‘offshore aquaculture’ are interchangeable.”

Since there are too many different synonyms for aquaculture (e.g., aquafarming, fish farming, pisciculture, aquaponics, etc.) and its location (e.g., offshore, open ocean, onshore, nearshore, etc.), providing a complete and accurate list would be foolhardy. Participants should recognize that their research may benefit from and include terms that are synonymous with those used in the topic.

We believe that the participants should debate out exactly what it means for open ocean aquaculture development to be desirable and, thus, any arguments provided are guidelines rather than an exhaustive list. We anticipate that the affirmative will argue that open ocean aquaculture will produce a higher quality and quantity of seafood to help meet the food demands of a growing population. Some affirmatives will argue the relative environmental benefit of having aquaculture offshore compared to onshore or nearshore. Some affirmatives could potentially argue the positive benefits of the acceleration and expansion of this new industry, both economically and environmentally.

We anticipate that many negatives will argue the potential and real environmental detriments to massive open ocean aquaculture development. The negative can, but does not have to, explain the relative benefits to onshore or nearshore compared to offshore aquaculture. We anticipate some negatives will offer alternatives to current aquaculture while being mindful that providing alternatives alone does not intrinsically prove that open ocean aquaculture is not desirable. Some negatives may argue that development of open ocean aquaculture precludes other uses of the ocean. Also, some negatives could potentially criticize the affirmative from a broader, more systemic approach, e.g., that capitalism is a harmful system which the affirmative endorses.

This statement is intended to help you better understand our thinking, not to restrict your creative approach to the issues essential to the motion. We do hope, however, that the collective work and advocacy we generate through this event will assume the critical and important position of the earth's ocean resources in impacting survival and well-being and will begin with a commitment to sustainability and ocean health.

As technology becomes more commercially viable, 'blue acceleration' will continue through open ocean aquaculture development. There are many potential advantages of the expansion of open ocean aquaculture, but with it will arise some unknown risks. Since the industry is nascent but growing, we have an opportunity for reflection. For the future of our oceans, and, thus, the planet, we ask you to pause, ponder, and debate: "Is the acceleration of open ocean aquaculture development desirable?"

Sources

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Upton, H. F., & Buck, E. H. (2010, August 9). Open Ocean Aquaculture. Congressional Research Service Reports. Retrieved March 1, 2023, from <https://crsreports.congress.gov/product/pdf/RL/RL32694/19>

Other Suggested Readings

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