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Innovation & Investment

TNC, Encourage Capital issue guidance on sustainable aquaculture investment

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By James Wright

Authors encourage investors to look to places with enabling conditions for growth



Fish farmers in the Irrawaddy River Delta, Myanmar. Photo by Michael Yamashita, courtesy of The Nature Conservancy.

If the Blue Revolution is to take hold, it must be funded.

Aiming to spur meaningful investment in a global aquaculture industry guided by strong environmental protections, U.S. non-governmental organization The Nature Conservancy (TNC) last week issued a field guide for all parties interested in accelerating the sector's sustainable future.

Titled "Toward a Blue Revolution: Catalyzing Private Investment in Sustainable Aquaculture Systems," the free, **162-page report** (<https://www.nature.org/en-us/what-we-do/our-insights/perspectives/how-investors-can-turn-the-tide-on-aquaculture/>), was co-written by New York-based impact investment firm Encourage Capital. According to Robert Jones, global aquaculture lead at TNC, the need for this comprehensive resource is big and growing.

"We know there are some industry analyst reports, and some good ones, out there. But they're not often open-sourced. We wanted to make this information readily available and bring these opportunities to the mainstream," Jones told the *Advocate*. "It's a bigger-than-aquaculture story; it's about feeding the planet responsibly. Our organizational mandate is now to find solutions to feed 9.7 billion people by the year 2050, sustainably. What this report is about is the most compelling solution to achieving that, through aquaculture."

Mitigating the environmental impacts of aquaculture – an industry that the Food and Agriculture Organization of the United Nations (FAO) estimates is worth \$243.5 billion and growing at a 6 percent annual pace – will depend on innovative technology advances and thoughtful farm siting, the report states. Impacts to wild fish stocks, water pollution, habitat degradation and disease are areas in which aquaculture can improve with large-scale private and multilateral investment, it added.

TNC and Encourage Capital identified three forms of aquaculture production that have environmental performance scores exceeding those of traditional, "business as usual" operations like near-shore net pens: seaweed and bivalve culture, offshore aquaculture and recirculating aquaculture systems (RAS). The authors of the report hope that these systems become the primary methods of producing seafood by 2050.



The Hog Island Oyster Farm in Tomales Bay, Calif. Photo by John Terry, courtesy of The Nature Conservancy.

While taking a big-picture view, the report is also geared to smaller operations seeking to grow and for policymakers.

“We talk about recommendations for entrepreneurs themselves, those starting their own businesses, about how to appeal to investors,” said Jones. “Investors are traditionally hesitant to finance some of the more innovative production systems that have great potential like RAS and offshore. We outlined three reasons why.”

The first reason, he said, is knowledge. The report contends that there’s a lack of fundamental information on aquaculture designed for non-experts. “We aim to synthesize what’s available and what we know about this space,” said Jones.

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The second, Jones explained, is a lack of consensus among investors as to whether aquaculture qualifies as an “impact” investment – one that brings triple-bottom-line (economic, environmental and social) returns. The report aims to clarify the guidance around that, said Jones.

Thirdly, there’s a perception that perceived risk is higher than actual risk, he said. “We aim to explain why these systems are becoming profitable and ways to mitigate risk,” he added.

Jones, who joined TNC in 2016, has led the group’s efforts to support aquaculture production systems that provide crucial ecosystem services – like seaweed and oysters, which clean the water and absorb carbon. Promoting production methods like RAS and offshore aquaculture – in which net pens are moved from near-shore state waters to federal waters more than 3 miles offshore – represents a bolder step. Jones recognizes that moving farms from sensitive areas onto land or further from shore where environmental impact is lessened also makes sense from an economic standpoint, as there are relatively few players.



Kampachi is a leading candidate for offshore aquaculture development. Photo by The Kampachi Company, courtesy of The Nature Conservancy.

The most important investment strategy for aquaculture that the report details regards identifying the proper “enabling conditions” that allow development: defining, aligning and refining government policies; supporting sustainable innovation and pipeline cultivation; and establishing a set of commonly accepted principles for

responsible marine aquaculture investment and industry benchmarking tools.

“You need the proper regulatory structure in place in order to start,” said Jones. “You need a permit, but it’s in the interests of the business that the regulatory structure ensures environmental protection and protection of the business.”

Regardless of configuration or mandate, any investor – impact, philanthropy, private equity or venture capital – requires patience to truly find success in aquaculture investment, Jones agreed: “We’re not saying it’s going to be easy. But there are compelling opportunities out there. It’s important that the risk matches the return.”

“Toward a Blue Revolution” argues that if early movers in RAS, offshore and non-fed aquaculture species ventures find success, the barriers to entry will be lowered for the more skeptical investors. With all of the new RAS projects coming online in the United States, particularly in Maine where two land-based salmon farms and one yellowtail farm are in development stages, Jones said it’s a “critical time” for the technology, which he still characterized as “high risk.”

“It’s an extremely complex interdisciplinary field. That’s evidenced by the diversity of backgrounds on the team that wrote this thing,” said Jones. “By no means will it replace the due dill an investor must do to be financially successful and environmentally responsible. But it’s a start.”

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