

BLUE ECONOMY X OCEAN RESCUE ALLIANCE

If we can collaborate to travel to Mars, surely, we can work together to explore the ocean—80% of which is unmapped, unobserved, and unexplored.¹ This is the sentiment that Shelby Thomas, CEO of Ocean Rescue Alliance, carried into her remarks at a June, 2021 Blue Economy webinar hosted by Nova Southeastern University (NSU) Florida. Curiosity, however, is not the only reason to dive deep into the Blue Planet; our oceans present both a challenge and an opportunity.

The World Bank defines the Blue Economy as the “sustainable use of ocean resources for economic growth, improved livelihoods and jobs, and ocean ecosystem health.” This is a three-pronged definition that encapsulates the major stakeholders of the ocean and expands into many industries, groups, and interests.

The Ocean Rescue Alliance (ORA) is a marine conservation and restoration nonprofit that focuses on coral reef restoration research, eco-tourism, and education. ORA has centered its work firmly into this “Blue Economy” framework.

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¹<https://oceanservice.noaa.gov/facts/exploration.html#:~:text=More%20than%20eighty%20percent%20of,the%20mysteries%20of%20the%20deep.>

Impact on Economic Growth

From tourism to renewable energy, fisheries, climate change, maritime transport, and waste management, the World Bank identifies many ways in which the ocean is a means for economic growth.² The Ocean Rescue Alliance recognizes these activities.

ORA's 1000 Mermaids Artificial Reef Project and Gallery taps into the booming Florida tourism industry, valued at \$96.5 billion and supporting over 1.6 million Florida jobs, according to the most recent report.³ Combining art through sculpture and ocean conservation reefs creates a new kind of exhibit: both an artistic and educational dive site for visitors.

The carefully researched methods used to create ORA's artificial reefs ensure that these modules promote fish biodiversity, thus positively supporting the fishing industry. In the construction of artificial reefs, ORA creates interstitial spaces to provide micro and macro habitats protecting fish from predators. Their reefs also integrate corals, oysters, and mangroves. In turn, the nonprofit directly improves the fishing industry. By supporting marine life, these reefs fight overfishing; as an example of the "tragedy of the commons" in economics, the overexploitation maritime resources has generated movement directed to preserving the supply of fish, thus ensuring the future of the fishing industry.⁴

The economic cost of climate change is projected to rise as high as 3.6% of GDP, according to the NRDC.⁵ As climate change creates more and worse extreme weather events, reefs become even more important in preventing costly damage.⁶ Climate change also harms coral reefs through ocean acidification and coral bleaching.⁷ Thus, protecting the reef ecosystem counters climate change in two distinct ways.

The work that ORA does counteracts the negative effects of maritime transportation and waste management by helping maintain the ocean ecosystem.

² <https://www.worldbank.org/en/news/infographic/2017/06/06/blue-economy>

³ <https://www.visitflorida.com/en-us/about-us.html>

⁴ <https://www.cambridge.org/core/journals/environmental-conservation/article/abs/fishermen-and-the-tragedy-of-the-commons/F6704D2267C9814BC61954B402A535F3>

⁵ <https://www.nrdc.org/sites/default/files/cost.pdf>

⁶ <https://www.carbonbrief.org/mapped-how-climate-change-affects-extreme-weather-around-the-world>

⁷ <https://sloactive.com/coral-reef-crisis-guide/>

Interdisciplinary integration within the organization unites a variety of interests towards the goal of marine conservation and restoration for the greater good—economic and social. Further, ORA is an entrepreneurial organization in a high value area. These factors align it to have the potential for strong positive impact on future economic growth.⁸

The oceans are currently an untapped resource with the ability to generate revenue and investment opportunities; significantly, these resources must be protected since they are worth far more alive and thriving than dead.

Impact on Livelihoods and Jobs

ORA connects and engages the community through education and volunteer opportunities, as well as through art. Education is a central pillar of the Ocean Rescue Alliance. Their Coral Rangers citizen science program educates community members about reef monitoring and coral restoration. An added benefit to participants' well-being: getting outdoors.

The organization offers hands-on learning experience through beach and dive site clean ups and reef monitoring trips. According to multiple studies, spending time outside improves stress levels and anxiety, short-term memory, and provides a variety of other health benefits.⁹ Lastly, the 1000 Mermaids Gallery expands the boundaries of what and where art can be, doubtlessly inspiring artists of the future. Through education, outdoor exploration and creative inspiration, ORA advances and improves livelihoods.

Currently, Ocean Rescue Alliance brings together arts advocates and entrepreneurs like COO Evan Snow, marine ecology researchers and academics like CEO Shelby Thomas, M.S., and architectural sculptors like Chris O'Hare, Reef Builder and Lead Engineer. The nonprofit elevates artists from mixed media to illustrators and songwriters. It engages with the diving and boating communities, and its coastal resiliency actions intersect with the clean energy technology sector.

Additionally, ORA remains on the forefront of cutting-edge technologies such as 3D printing to create the reefs, and opportunities in the digital currency and non-fungible token universe. While ORA is a marine preservation nonprofit, its work crosses multiple industries and presents job opportunities to a diverse group of individuals.

⁸ <http://www.ecosysteminsights.org/what-types-of-companies-have-the-strongest-impact-on-economic-growth/>

⁹ <https://www.businessinsider.com/why-spending-more-time-outside-is-healthy-2017-7#it-could-improve-your-ability-to-focus-8>

Impact on Ocean Ecosystem Health

Finally, ocean ecosystem health is at the heart of the Ocean Rescue Alliance. Studies show that coral reefs are at risk due to unsustainable over-fishing, global warming, and coastal development; 70% of coral reefs are projected to disappear by 2030 in the status quo.¹⁰ Sustainable restoration is thus the central goal of ORA. While beautiful and artistic, the artificial coral reefs that the nonprofit creates and deploys are scientifically researched to be eco-friendly. ORA's artificial reefs "mimic natural reef structures" such that they include features such as interstitial spaces for fish habitat. They also aid in protecting against coastal erosion and use material science principles to patent pH-neutral cement for the reef mix.¹¹ Coral locks enable the artificial reefs to outplant natural coral and improve ocean health. The ocean ecosystem is at risk due to the plight of coral reefs—reefs provide a quarter of marine species with habitat and protect coastlines from storms and erosion. Conservation and restoration of coral reefs is vital for ocean ecosystem health.

The Ocean Rescue Alliance benefits the global ecosystem not only by conserving and restoring coral reefs, but also by pursuing the three pillars of the Blue Economy: economic growth, improved livelihoods and jobs, and ocean ecosystem health. This intersection within the Ocean Rescue Alliance makes it an unstoppable force for good as well as an inspiration for others hoping to anchor the power of combining economic, social, and environmental interests.

For more information on the Ocean Rescue Alliance, please visit:

<https://www.oceanrescuealliance.org/>

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¹⁰ <https://sloactive.com/coral-reef-crisis-guide/>

¹¹ <https://www.oceanrescuealliance.org/approach>