AQUACULTURE BOOST ON BLUE ECONOMY

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Abstract. The role of the aquaculture industry is crucial in boosting the blue economy through its supply for sustainable seafood and economic growth of the country. Through the application of responsible practices, aquaculture contributes to maintaining healthy fish stocks and reducing overfishing risks. As a result of the increasing world population, the rise in global demand for seafood depends more and more on aquaculture, that helps to preserve marine biodiversity and supports ecosystem resilience. Fish feed manufacture is a critical aspect of sustainable aquaculture, since feed quality and ingredient selection directly affect the environmental footprint of aquaculture facilities. Recent studies in the search of alternative protein sources for fish diets, such as insect meal, algae-based products, and recycled by-products from other industries, can reduce dependence on wild fishmeal, offering alternatives to wild-caught fish in aqua-feed production, that aligns with circular economy principles while enhancing the blue economy. The sustainable growth of the aquaculture industry within the blue economy framework ensures that economic activities are aligned with conservation and ecosystem health objectives. Innovative approaches in breeding, disease management, and waste reduction technologies can further increase the efficiency and sustainability of aquaculture operations. By promoting the growth of aquaculture, countries can strengthen their blue economy, ensuring food security, creating new job opportunities, and preserving the biodiversity of aquatic environments. The integration and harmonization of aquaculture, fisheries, and fish feed manufacture within balanced practices and policy frameworks may accelerate sustainable development while protecting marine and freshwater ecosystems for future generations.

Keywords: Aquaculture industry, blue economy, economic growth, ecosystem resilience, fish feed, sustainable seafood production