

Applied Ecology and Environmental Management



GLOBAL BLUE ECONOMY

Analysis, Developments, and Challenges

Edited by

Md. Nazrul Islam

Steven M. Bartell



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8.1 INTRODUCTION

Oceans are approximately three-quarters of the earth's surface, accountable for more than 90% of the biosphere, providing an array of goods and services to the global community which includes food, employment, recreation and cultural well-being, minerals, oxygen production, greenhouse gas absorbance, climate change impact mitigation, and serve as highways for seaborne international trade (United Nations, 2017). For the development of economies along with the threats posed by the climate change and global warming the concept of the Blue Economy was first introduced in 1994 by Professor Gunter Pauli of the United Nations University (UNU). Because of this significant role played by the oceans, the importance of implementing sustainable development measures for marine environment was discussed at the United Nations Conference on Sustainable Development (Rio+20) held in Rio de Janeiro, Brazil in June 2012. Consequently, the conference adopted a set of ground-breaking guidelines on green economic policies which are considered as essential tools for achieving sustainable development goals (United Nations, 2012). With strong support from coastal and island nations at the conference, because of the contribution made by the oceans to their economies, the ocean derived green economy was accepted as the blue economy.

8.1.1 BLUE ECONOMY AS A CONCEPT

It has been nearly a decade since the conference held at Rio de Janeiro which led to the development of the 'Blue Economy' concept. The blue economy is a way of looking at the economic growth of a nation through its contribution from ocean and costal based activities while assuring environmental sustainability and assuring livelihood improvement. The oceans are huge natural resource pools that consist of both renewable and non-renewable resources that can be utilized in many industries to strengthen the economies of nations (Sumaila, 2021). Among the many definitions for the concept of blue economy Kathijotes (2013) identifies it as a system of ocean based green economy that connects to create neo-science and technologies. In other words, strengthening economic systems through ocean-based resources can be referred as 'ocean economy', while using ocean resources sustainably, giving due consideration to the ecological aspects for economic development can be defined as 'blue economy'. Therefore, efficient, and optimal utilization of marine natural resources within ecological capacities are important aspects of blue economy and can be identified as:

- i. a subset of the economy,
- ii. encouraging production from ocean inputs,
- iii. utilizing ocean resources sustainably without degrading the environment,
- iv. aiming to reduce environmental risks and ecological scarcities, and
- v. supporting livelihoods in an equitable manner with benefit-sharing

According to Keen et al. (2018) there are five key components of the blue economy: ecosystem resilience, economic sustainability, community engagement, institutional integration, and technical capacity. Thus, the blue economy can be referred to as the sustainable management of ocean