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# What Is the *Blue Economy*?

Marine economic activity, which may include activities occurring in the ocean, coastal areas, and Great Lakes, is important for economic growth, jobs, and livelihoods around the world, and particularly in coastal communities. However, some marine economic activities contribute to overexploitation of living (e.g., fisheries) and nonliving (e.g., oil, minerals) marine and coastal resources.

This In Focus discusses various definitions of the term *blue economy*; provides an estimate of the monetary value of the U.S. blue economy; and presents policy considerations for Congress, including a discussion about the possible need for a statutory definition of the blue economy and legislative support for its associated activities.

## **Blue Economy Definitions**

There is no agreed-upon definition of the term *blue economy*. The use of the term varies among and within countries, organizations, and institutions. Definitions of the term generally fall into two categories.

One variation of the definition refers to the blue economy as the collective economic value of the resources, uses, and activities of the ocean and coasts. This definition may be used interchangeably with other terms, such as *ocean economy* and *marine economy*. This In Focus uses this definition of the term *blue economy*.

Another variation of the blue economy definition refers to the use of ocean and coastal resources to balance economic prosperity and environmental sustainability, in line with how the term was first introduced and used at the 2012 United Nations Conference on Sustainability. For example, 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." In this definition, the blue economy refers to the efforts of nongovernmental organizations, federal agencies, or others to promote sustainable ocean development, which contributes to maintaining the ocean's ecological health and ensuring the long-term viability and economic growth of marine-based industries.

Congress has not defined the term *blue economy* in statute. Federal officials have used both of the above variations of the term in the context of federal programs. Some examples include the following:

 The National Oceanic and Atmospheric Administration (NOAA) defines the blue economy as the "sustainable use of ocean resources for economic growth, improved livelihoods and job creation."

- The Department of State reports that the purpose of the blue economy is to "advance ocean heath alongside economic prosperity, providing sustainable food, power, and transportation."
- The Department of Energy (DOE) describes the blue economy as "comprised of sectors and activities that span commerce and trade; living resources; renewable energy; minerals, materials, freshwater; and ocean health and data" and notes that many of these sectors show an increased focus on sustainability.

## Value of the U.S. Blue Economy

In the United States, the Bureau of Economic Analysis (BEA) tracks revenues and jobs associated with the marine economy. BEA considers the following activities to be part of the marine economy: living marine resources, coastal and marine construction, marine research and education, marine transportation and warehousing, marine professional and technical services, offshore minerals, coastal utilities, coastal and offshore tourism and recreation, nonrecreational ship and boat building, and national defense and public administration. Some may consider the value of the marine economy as a potential index of the value of the U.S. blue economy. In 2019, BEA reported that the U.S. marine economy portion of the gross domestic product (GDP) grew faster than the nation's economy as a whole. In 2020, the most recent year for which data are available, BEA found the marine economy accounted for 1.7%, or \$361.4 billion, of the U.S. GDP, with coastal and offshore tourism and recreation as the largest contributor, at \$190.9 billion.

Some organizations have attempted to estimate the worth of a potentially similar group of ocean-based activities, termed the *ocean economy*. For example, the Organisation for Economic Co-operation and Development (OECD) defined the ocean economy to include water transportation; port activities; maritime and coastal tourism; industrial fish processing, capture, and marine aquaculture; exploration and production of offshore oil and gas and wind; shipbuilding and repair; and manufacture of marine equipment. In 2016, the OECD projected the global ocean economy could double in total value added to \$3 trillion by 2030.

# **Policy Considerations**

Congress may consider several issues related to the blue economy, including how the term is defined and valued and legislative support for its associated activities.

#### Need for a Blue Economy Definition?

Several bills introduced in the 117<sup>th</sup> Congress aim to codify the term *blue economy*. Some bills would define blue economy as an activity, whereas others would define it as

an economic sector. For example, H.R. 6680 would define the term broadly, in the context of DOE authorities, as "the sustainable use of ocean and aquatic resources to grow the economy, improve livelihoods, and create jobs in a manner that preserves the health of ocean and aquatic ecosystems." In another example, H.R. 7970/S. 3866 would define blue economy in the context of Department of Commerce responsibilities as "the value and impact of sustainable industries related to the Great Lakes, oceans, bays, estuaries, and coasts on the economy of the United States," and would specify industries and activities to include.

Some stakeholders argue that a standard definition of the term is needed to capture the blue economy's full contribution to national GDP. For example, H.R. 3748/S. 140 would direct the NOAA Administrator to work with other agency leaders to define and measure the blue economy in coordination with nonfederal and tribal stakeholders, and to collaborate with national and international entities to ensure measurement comparability, among other activities. Alternatively, Congress might maintain the status quo and leave the term undefined.

The definition used for blue economy could inform policy debates regarding ocean uses and activities. Any economic valuation of the blue economy would depend on the definition used, which would specify what industries, activities, resources, or geographic areas are included. For example, some have proposed to include *ecosystem services*—the benefits to people, such as flood control, provided by the natural environment—in valuations of the blue economy. However, measuring these aspects of the blue economy is challenging due to a lack of consensus on how to value ecosystem services. Most existing measures of the blue economy focus on activities of marine-based industries and exclude ecosystem services.

#### **Supporting Blue Economy Activities**

Congress has authorized federal agencies to support activities that may be included in the broad definitions of blue economy above. Legislation in the 117<sup>th</sup> Congress would add or change these blue economy-related authorities. For example, some bills would support blue economy activities explicitly, such as legislation that would designate and fund regional Ocean Innovation Clusters to "contribute to the equitable and sustainable growth of the blue economy across all sectors" (H.R. 7970/S. 3866). Some bills would support certain industries that fall within the blue economy by providing funding for research and development of "blue energy technologies" (H.R. 6680), establishing requirements for offshore aquaculture in federal waters (H.R. 6258/S. 3100), or making changes to federal fisheries conservation and management programs and processes (H.R. 3128), among other activities. Other bills would support conservation and protection of the marine environment, which serves as the basis for many blue economy activities, or would indirectly facilitate the blue economy through research, observations, and monitoring of the marine environment.

Congress may continue to consider facilitating blue economy cooperation and coordination between the stakeholders that rely on shared marine spaces and resources. For example, the offshore renewable energy industry anticipates job growth with the deployment of solar, tidal, and wave energy technologies and the continued expansion of federal and state offshore leasing for wind energy. However, potential productive locations for offshore renewable energy projects may coincide with locations of other marine activities, such as commercial and recreational fishing, or conservation activities, such as feeding or migration areas for certain species (e.g., North American right whales). Previous Administrations have provided funding and technical assistance to nonfederal regional ocean partnerships (ROPs) focused on marine spatial planning. Some Members have proposed to codify NOAA's relationship with ROPs, including authorizations of appropriations for financial assistance (e.g., H.R. 3817/S. 1894 in the 117<sup>th</sup> Congress).

#### **International Considerations for the Blue Economy**

Many international intergovernmental organizations have established goals and targets that may directly or indirectly support activities within the various definitions of the blue economy. For example, one target outlined in the U.N. Convention on Biological Diversity (CBD) Post 2020 Global Biodiversity Framework is for protected areas to cover at least 30% of land and sea areas by 2030. The Biden Administration's "Executive Order on Tackling the Climate Crisis at Home and Abroad" (E.O. 14008) specified the Administration would determine which steps to take toward "conserving at least 30 percent of [U.S.] lands and waters by 2030."

Congress may play a role in establishing new or expanding existing marine protected areas (MPAs) to help achieve the goals of the CBD. Human activities are managed within MPAs to protect and restore marine and coastal ecosystems. In the United States, MPAs can be established and managed at the federal, state, local, and tribal levels. MPAs in the United States currently cover 26% of U.S. marine waters.

MPAs may support the marine and coastal tourism sector within the blue economy. The marine and coastal tourism industry, including recreational boating and fishing, marine guided tours, and marine trips and travel, depends on healthy beaches, coral reefs, and other ecosystems. For example, a 2017 study found that 70 million trips are supported by the world's coral reefs each year, representing an estimated \$36 billion to the global marine and coastal tourism industry.

MPAs also may contribute to the blue economy through their ecosystem services. For example, 83% of U.S. mangrove forests, which occur along the U.S. Gulf Coast, are protected by federal or state MPAs. Mangroves are often referred to as one nature-based approach for mitigating global climate change—studies estimate that mangrove forests can store up to four times more carbon than tropical rainforests. Mangroves also stabilize the coastline, reducing erosion from storm surges, currents, waves, and tides.

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