

VALUING THE OCEAN: PACIFIC BLUE ECONOMY



ECONOMIC OPPORTUNITY

KEY POINTS

- Blue Economy includes environmentally and socially sustainable commercial activities, products, services, and investments that depend on or affect coastal and marine resources, ecosystems, and species.¹
- With marine species and ecosystems under threat, and development costs (e.g. fuel) increasing, careful consideration needs to be given to the approval of new ocean-based developments.
- Economic value can be added to natural products by changing to production practices that are environmentally sustainable (e.g. MSC certified), less wasteful, more hygienic, and that result in higher quality product to markets.
- Extraction, resource use, or ecosystem service use should avoid harming the ecosystems and species that provide that good or service.
- Marine and coastal ecosystems are closely connected to each other and to land-based systems, particularly through [wetlands](#) and waterways. Integrated management is key.

HOW ISSUE LINKS TO/IMPACTS SDGs BEYOND **SDG14 LIFE BELOW WATER**

- SDG1, 2: Sustainable management of our marine resources is vital to achieve food security reduce poverty in the Pacific and to maintain the important role of reefs in local economies.
- SDG7: Energy independence is a key component of economic strength of Pacific states.
- SDG8, 9, 10: Marine ecosystems, products and services are key components of Pacific economies and decent work. Pacific people should benefit from the natural wealth in their region.
- SDG12, 13, 15: [Responsible consumption and production](#) with integrated terrestrial to marine management can help maintain reef ecosystem function and climate resilience.

BACKGROUND

1. **Sustainable development and use is supported by healthy ecosystems.** Resource use and policy should be guided by the principles of 'best environmental practice', 'safe minimum standard' and the 'precautionary approach'. Business practices will ideally align with principles of sustainability, as shown by e.g. [Biodiversity in Good Company](#).
2. **Blue economy considers both uses and impacts.**² The term blue economy is not yet firmly defined; Whisnant & Reyes offer this definition: "*blue economy is the set of environmentally and socially sustainable commercial activities, products, services and investments dependent on and impacting coastal and marine resources. Activities that erode natural capital through degradation of ecosystem services are inherently not sustainable, and not 'blue'*". Four key elements are present in coastal and marine economic activities that can be considered blue economy:
 - Protects, restores and sustains healthy coastal and marine ecosystem services;
 - Generates sustainable, equitable economic benefit and inclusive growth;
 - Integrates approaches between multiple industries and government; and
 - Innovates, informed by the best available science."
3. **Long-term profitability and environmental sustainability can be aligned, using best practices for biodiversity conservation.** This approach has implications for a range of factors from fishing gear types to social labour practices. For a given resource, some of its value can be determined by the method of extraction or production: for example, unbruised, sashimi-quality tuna has a greater market value than canned tuna.
4. **Conservation can produce economic value.** For example, conservation action to restore fish stocks could produce an economic gain of USD 50 billion per year.³ Industry must be engaged more constructively and collaboratively to achieve such conservation action.
5. **On small islands, almost every economic activity affects the ocean.** Using a definition of "coastal zones as land area within 60 km of adjacent nearshore waters, most Pacific island states are coastal communities, with only Fiji, Kiribati, Solomon Islands and Vanuatu containing any land masses big enough to be considered non-coastal."⁴



6. **The ocean provides services in addition to products and profits.** The ocean brings great wealth to Pacific island countries, with only a small fraction of that wealth already translated into economic terms. In addition to the present and potential economic values of ecosystems and species, the ocean provides inherent supporting, regulating, and socio-cultural ecosystem services, e.g. climate regulation and nutrient cycling, often ignored and undervalued because they are free. The expense of ecosystem restoration or compensation for the loss of these ecosystem services is greater than the cost of preservation.⁵
7. **The ocean and Pacific species provide great value.** Pacific Ocean-based fishing and tourism provide USD 3.3 billion to the national economics of Pacific countries and territories.⁶ Micronesia's ocean economy has an estimated worth of USD 548 billion, or USD 5.4 billion annually.⁷ Globally, coral reefs protect at least USD 5,995 million of built capital, with other estimates exceeding this value.⁷ Dominant marine economic sectors in the Pacific include subsistence, commercial and industrial [fisheries](#); [transport/shipping](#); coastal and marine [tourism](#); and [deep-sea minerals](#) (potential).
8. **Sustainable branding can support species and economies simultaneously.** The Marine Stewardship Council approved a Pacific free-school purse-seined skipjack fishery in 2016. This fishery does not use fish-aggregating devices, reducing the amount of bycatch, although purse seining still has disadvantages of indiscriminate catch and generally producing a lower-value product suitable only for canning. According to news from the Parties to the Nauru Agreement, in 2016, tuna fishing fleets delivered over 55,000 metric tons of MSC-certified tuna to market, with potential demand for 100,000 tons in 2017: "MSC-certified skipjack and yellowfin from PNA waters now account for over 90% of all MSC-certified tuna traded globally. [...] PNA's MSC chain of custody system is now seen as the global standard for free school caught tuna."
9. **Environmentally sound tourism is a key opportunity for Pacific islands.** Tourism accounts for 7.2% of regional GDP and 5.8% of employment.⁶ Approximately half of all international tourists travel to coastal areas, globally. [Coral reefs](#) attract 350 million people and drive over USD 30 billion each year in tourism revenue globally.⁷ Pacific species and heritage offer unique tourism value. Whale-watching is a multi-million-dollar Pacific industry, with further potential. In Palau, the lifetime value of a live shark is USD 1.9 million for dive tourism. Pacific [underwater cultural heritage](#) is largely undeveloped for tourism. There are over 4,000 heritage sites in the Pacific, many accessible to snorkelers and divers.⁸
10. **New marine resource uses can be lucrative.** For example, the market value of marine genetic resources was estimated as USD 643 billion in 2006 for the pharmaceutical sector and USD 231 billion in 2005 to the cosmetic industry.⁹ However, the high cost, specialised technology and expertise required for [marine bioprospecting](#) are prohibitive for many public institutions and developing states. Also, only a small fraction of explored resources will produce marketable products. There is a risk of prospecting unintentionally becoming extraction for rare species.
11. **Research carries responsibilities.** Frameworks on access and benefit sharing in the Pacific need further development, with a present focus on marine bioprospecting and genetic resources to consider the environmental and social impacts of research.¹⁰ There is concern over deep-sea mineral prospecting impacts, including marine noise and habitat disturbance in sensitive, biologically rich deep ecosystems. Research and prospecting must also undergo [assessments of environmental impact](#).
12. **Deep-sea mining activities are on the horizon.** Marine minerals may provide an alternative source of economic growth if suitable for commercial exploitation.¹¹ Pacific governments have responded enthusiastically but cautiously to the prospective DSM industry, recognising the importance of identifying and evaluating potential costs and benefits for their countries. The economic viability varies by mineral type and location.¹² The DSM industry has an opportunity to create a socially responsible extractive industry, while minimising its environmental impact to the greatest extent possible.¹³
13. **Marine systems are impacted by energy extraction.** [Marine renewable energy](#) is largely undeveloped in the Pacific islands, but development requires the precautionary principle to avoid harming sensitive tropical ecosystems. Terrestrial renewables are also important for Pacific islands, with land management intimately tied to marine and coastal ecosystem health. Climate change heavily impacts the Pacific region, making commitments to [sustainable consumption and production](#) important.
14. **Protecting diversity today can grow tomorrow's Blue Economy.** Undiscovered species, which may already be at risk of extinction, might have either economic use value or option value, containing profitable information or products. For example, land conservation in Mexico provided significant value (USD 230–330 million) from the genetic information preserved in an area containing a wild grass that can be used to develop viral-resistant strains of corn.¹⁴ The Pacific can show leadership by developing its Blue Economy using best environmental practice aligned with Pacific values.

1 Whisnant & Reyes. 2015. Blue Economy for Business in East Asia: Towards an Integrated Understanding of Blue Economy. PEMSEA, Quezon City, Philippines. 69 p. Note also: "Over 30 percent of global oil and gas production is from offshore sites. Worldwide revenue from seafood amounts to more than US\$190 billion, while marine and coastal tourism generate US\$161 billion annually. Fishing, aquaculture and tourism combined provide over 300 million jobs worldwide."

2 Spalding M. 2016. The new Blue Economy: the future of sustainability. J Ocean Coastal Economics 2:8

3 UNEP, FAO, IMO, UNDP, IUCN, World Fish Center, GRIDArendal. 2012. Green Economy in a Blue World. 24 p.

4 RESCUE 2014. Environmental valuation in the Pacific: a snapshot. SPC

5 McCarthy et al. 2012. Financial costs of meeting global biodiversity conservation targets: current spending and unmet needs. Science 338:946–949

6 Seidel & Lal. 2010. Economic value of the Pacific Ocean to the Pacific Island Countries and Territories. IUCN. Gland. 75 p

7 Spalding et al. 2016. Atlas of Ocean Wealth. The Nature Conservancy

8 UNESCO 2010. Underwater Cultural Heritage in Oceania. 111 p

9 Maritime Forum. 2013. Study to support impacts assessment for "marine knowledge 2020".

10 Ntona 2015. Benefit sharing and marine scientific research and The transfer of marine technology as benefit-sharing. Benelex Blog, University of Edinburgh

11 Roche & Feenan. Drivers for the development of deep sea minerals in the Pacific. Mineral Policy Institute, IHC Mining. 40 p

12 Cardno 2016. An assessment of the costs and benefits of mining deepsea minerals in the Pacific island region. Pacific Community (SPC). 229 p.

13 Swaddling 2016. Pacific ACP states Regional Environmental Management Framework for deep sea minerals exploration and exploitation. SPC. 100 p

14 European Commission 2013. Study to support impact assessment for "marine knowledge 2020" – final report. Maritime Forum