

How can Small Islands harness the Blue Economy to build Climate Resilience and Protect Biodiversity?

¿Cómo pueden las Islas Pequeñas aprovechar la Economía Azul para generar Resiliencia Climática y Proteger la Biodiversidad?

Comment les Petites Îles peuvent-elles exploiter l'Économie Bleue pour Renforcer la Résilience Climatique et Protéger la Biodiversité?

CATHERINE JADOT

ES Caribbean, 100 16th Ave South, St. Petersburg, FL, 34479 USA Catherine@esCaribbean.com

EXTENDED ABSTRACT

Small islands support a disproportionate amount of biodiversity. They are also amongst the most vulnerable to human colonization and the adverse effects of climate change, such as sea-level rise, changes in precipitation patterns, and increases in tropical storm intensity and frequency. There is growing recognition for the need to develop strategies specifically designed for small islands' typically unique ecological fragility and economic vulnerability alongside the numerous opportunities they also possess. The recent COVID-19 crisis exacerbated the need to find sustainable Blue Economy initiatives that incorporate social, economic and ecological goals that will also allow to diversify the economy. To reach these goals, four key components have been identified. Long-term ecosystem based marine spatial management (EB-MSM) (1) and multi-level cooperation between islands (2) will be paramount. The advancement of ocean science and technology (3) will equally be key contributors in enabling responsible and sustainable Blue Economy. Finally, better governance, policies and regulations (4) must be implemented at the global, regional, national and local levels to protect our oceans, mobilize partnerships, boosts blue investments and build island resilience.

A *sustainable* Blue Economy provides social and economic benefits for current and future generations, by contributing to food security, poverty eradication, livelihoods, income, employment, health, safety, equity, and political stability (Lieberknecht, 2020). Since the term Blue Economy was coined by Gunter Pauli in 2004, the definition has evolved over the years. Indeed, in the early days, the Blue Economy included a notion of Blue Growth to mirror the central goal of economic policy around the world: economic growth. However, the notion of continued growth in perpetuity has been challenged as it seems now evident that perpetual growth can't be achieved within the boundaries of the planetary ecosystems (Meadows et al. 1972, Raworth 2017, Rockström et al. 2009). Over the past decade, new paradigms have emerged that reframe what the Blue Economy is or should be. Lieberknecht (2020) synthesizes these new paradigms as the "Blue Doughnut" to mirror the Doughnut Economy model developed in 2017 by Kate Raworth, economist at the University of Oxford, UK, where the economy is regenerative, distributive and circular. Using the visual metaphor of a doughnut: the outer edge represents the planetary ecosystem boundaries that the economy cannot overshoot, the ecosystem ceiling, and the inner edge represents the social foundation, the societal objectives that need to be achieved to prevent people from falling into the hole (figure 1). From there, activities and investments can be prioritized, with a focus on activities and investments that address human wellbeing shortfalls (preventing people to fall in the hole or pulling them out) and on those that reduce the most our contributions to planetary ecosystems boundaries overshoots.

To reach these goals, four key components have been identified. The first one is ecosystem based marine spatial management (EB-MSM). EB-MSM is an emerging paradigm of integrative ocean management that recognizes the full array of interactions within an ecosystem including human uses rather than considering single issues, species, or ecosystem services in isolation. At its core is the recognition that ecosystems and human wellbeing are interconnected and that conventional sectoral management and piecemeal governance have proven less effective to reach ocean sustainable development (Katsanevakis et al., 2011).

Additionally, multi-level cooperation between islands is crucial to reap the full potential of the Blue Economy. The policy silos that exist between island to manage marine resources is increasingly being recognized as an impediment to reach to true transformation. Transforming our world and shifting towards sustainable development requires interaction. Islands must learn to dance together, guided by the rhythm of a shared vision and coherent policies that encourage working together and sharing data. Better interaction and integration *within* the islands will also be necessary to break governance silos. In many SIDS, there is a lack of cross-ministerial mechanisms for coordination of efforts to capitalize on the potential of the Blue Economy. Ministries of Fisheries, Transport, Energy, Tourism, Commerce and Environment must create together a choreography that will increase interconnected governance with respect to marine affairs.

Finally, the advancement of ocean science and technology will equally be key in enabling responsible and sustainable Blue Economy. It will allow to fill the series of knowledge gaps that hinder our progression towards these goals such as limited data availability, our limited knowledge on the sensitivity of various ecosystem components to stressors, or the current and future interactions among stakeholders and possible conflict mitigation options. It will also allow to respond to the expanding demand for ocean-derived food, materials, energy by making them more accessible and affordable for all. The private sector is an essential stakeholder in ocean health and sustainability. By harnessing the power of innovation of businesses and enabling partnerships with other stakeholders, will lead to concrete actions and fir for purpose solutions including capacity building and technology transfer, financing, funding, generation of information and data, as well as

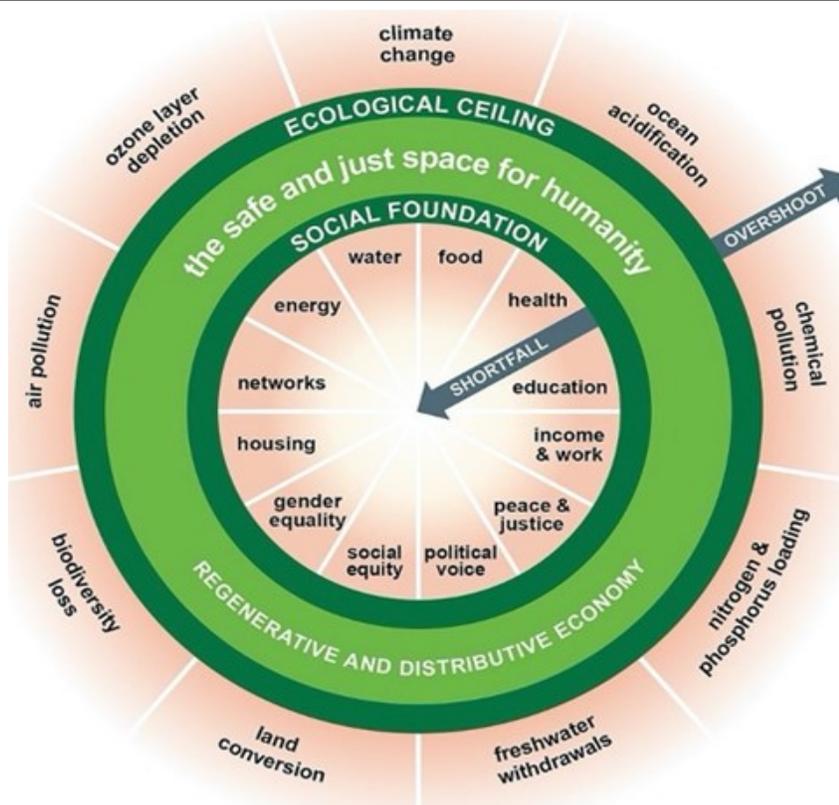


Figure 1. The model of Doughnut Economics by Kate Raworth, 2017. CC BY-SA 4.0

reinforcing networks of experts working together for a common goal (UNESCO/IOC, 2020).

As a new world emerges from the 2020 crisis, small island nations business and political leaders have the opportunity to rebuild better by harnessing the potential of the Blue Economy to pave the way for more sustainable and resilient communities.

KEYWORDS: Blue Economy, Small Islands, SIDS, Climate Resilience, Biodiversity

LITERATURE CITED

- Katsanevakis, S., Stelzenmüller, V., South, A., et al. 2011. Ecosystem-based marine spatial management: Review of concepts, policies, tools, and critical issues. *Ocean & Coastal Management*, **54** (11): 807-820.
- Lieberknecht, L.M. 2020. *Ecosystem-Based Integrated Ocean Management: A Framework for Sustainable Ocean Economy Development*. A report for WWF-Norway by GRID-Arendal. 62pp.
- Meadows, D.H., Meadows, D.L., Randers, J. and Behrens III, W.W. 1972. *The Limits to Growth: A Report for the Club of Rome's Project on the Predicament of Mankind*. Potomac Associates - Universe Books, New York USA. 205pp.
- Raworth, K. 2017. *Doughnut Economics: Seven Ways to Think Like a 21st-Century Economist*. Random house 309pp.
- Rockström, J., Steffen, W., Noone, K., Persson, Å., Chapin

- III, F.S., Lambin, E.F. et al. 2009. A safe operating space for humanity. *Nature*, **461** (7263): 472.
- UNESCO/IOC. 2020. *Advancing Science for Sustainable Ocean Business: an opportunity for the private sector*. UNESCO, Paris (IOC Information document: IOC/INF-1389). 24pp.