



## OPEN ACCESS

EDITED BY  
Joanna Vince,  
University of Tasmania, Australia

REVIEWED BY  
Noella Edelmann,  
Danube University Krems, Austria  
Erika Jane Edith Techera,  
University of Western  
Australia, Australia

\*CORRESPONDENCE  
Dominique Benzaken  
db560@uowmail.edu.au

SPECIALTY SECTION  
This article was submitted to  
Comparative Governance,  
a section of the journal  
Frontiers in Political Science

RECEIVED 09 September 2022  
ACCEPTED 04 November 2022  
PUBLISHED 01 December 2022

CITATION  
Benzaken D, Voyer M, Pouponneau A  
and Hanich Q (2022) Good  
governance for sustainable blue  
economy in small islands: Lessons  
learned from the Seychelles  
experience.  
*Front. Polit. Sci.* 4:1040318.  
doi: 10.3389/fpos.2022.1040318

COPYRIGHT  
© 2022 Benzaken, Voyer, Pouponneau  
and Hanich. This is an open-access  
article distributed under the terms of  
the [Creative Commons Attribution  
License \(CC BY\)](https://creativecommons.org/licenses/by/4.0/). The use, distribution  
or reproduction in other forums is  
permitted, provided the original  
author(s) and the copyright owner(s)  
are credited and that the original  
publication in this journal is cited, in  
accordance with accepted academic  
practice. No use, distribution or  
reproduction is permitted which does  
not comply with these terms.

# Good governance for sustainable blue economy in small islands: Lessons learned from the Seychelles experience

Dominique Benzaken<sup>1\*</sup>, Michelle Voyer<sup>1</sup>,  
Angelique Pouponneau<sup>2</sup> and Quentin Hanich<sup>1</sup>

<sup>1</sup>Australian National Centre for Ocean Resources and Security, University of Wollongong, Wollongong, NSW, Australia, <sup>2</sup>Islands and Small States Institute, University of Malta, Valletta, Malta

The blue economy has emerged as an influential global concept. It is commonly understood to relate to the development of the ocean in a manner which also addresses concerns about ocean health in the face of increasing demands on ocean resources, marine pollution, and climate change. While the blue economy holds potential to act as an integrating policy framework for the sustainable development of the ocean, to date, there are limited examples of implementation in practice to test the usefulness of the concept. Based on a typology of “good governance” adapted from existing global typologies, we investigated the role of blue economy governance in enabling integration. We used a mixed methods approach to explore the experience of Seychelles, a blue economy early adopter, combining policy and institutional analysis, semistructured interviews with key actors and partners, and country fieldwork. Our analysis shows that from its inception, Seychelles’ vision of blue economy was a transformative model of development based on the protection and sustainable use of ocean resources for the benefit of Seychellois, consistent with the SDGs. Thanks to early political leadership and international engagement, the adoption of the blue economy concept was successful in raising awareness of the ocean health and its connection to people and the economy, and in establishing the basis of a national blue economy “architecture,” which helped secure innovative finance for implementation. Transitioning to implementation, several governance challenges emerged, which included maintaining high-level political momentum, stakeholder engagement, and institutional coordination and capacity. While some governance barriers to effective integration may be unique to Seychelles, some are common to SIDS, and others are found in a range of governance settings. Seychelles international visibility has brought high expectations, not always commensurate with local aspirations, capabilities, and jurisdictional responsibilities. Bridging the gap between global expectations and local realities will require support for locally driven institutional reforms, which take account of issues of scale, culture, and capacity.

## KEYWORDS

blue economy, Sustainable Development Goals, Seychelles, SIDS, good governance, policy coherence, institutional coordination, institutional reform

## Introduction

The blue economy has emerged as an influential concept at the 2012 Rio+20 United Conference on Sustainable Development, redefining the role of the coastal and marine space in sustainable development. It has brought to the fore concerns about ocean health in the face of increasing demands on ocean renewable and non-renewable resources, marine pollution, and climate change. The ocean is increasingly being advocated as a development space by developing and developed nations, in particular for Small Islands Developing States (SIDS), and there has been a rapid proliferation of international and national blue economy initiatives (Roberts and Ali, 2016; Patil et al., 2016b; World Bank, 2017; Okafor-Yarwood et al., 2020; Stuchtey et al., 2020).

Despite efforts at defining a blue economy, it remains a contested and evolving concept as evidenced by ongoing debates among scholars and policymakers around issues of governance, sustainability, equity, and ocean privatization, a reflection of the broad range of blue economy actors, their values, and objectives (Bennett et al., 2015, 2019; Silver et al., 2015; Campbell et al., 2016; Ehlers, 2016; Barbesgaard, 2018; Bennett, 2018; Voyer et al., 2018; Jouffray et al., 2020). Working definitions are available, which can provide some guidance on developing and implementing a blue economy in practice. For example, the World Bank defined the blue economy as “*the sustainable use of ocean resources for economic growth, improved livelihoods and jobs while preserving the health of the ocean*” (World Bank, 2017). The OECD defines the ocean economy as “*the sum of the economic activities of ocean based industries together with the assets, goods and services provided by the marine environment*” (OECD, 2016, p. 17). Importantly, most definitions seek to balance economic social and environmental objectives, consistent with the Sustainable Development Goals (SDGs) (Keen et al., 2018; Benzaken and Hoareau, 2021).

A review of regional blue economy initiatives including the EU new approach for a sustainable blue economy (2021), the African Union Blue Economy Strategy (2019), the Commonwealth Blue Charter “Shared Ocean, Shared Values” (2021), the High Level Ocean Panel for a Sustainable Ocean Economy, and the ASEAN Declaration on Blue Economy (2021) provide some insights into how blue economy has been enacted to date. It shows that although those initiatives vary in scope and scale, they share some common features including the recognition of the ocean as a driver for national and regional sustainable development and innovation, as well as key principles or objectives such as ocean health, sustainability, equity, and resilience. In addition, they recognize the critical role of enabling conditions, such as governance to achieve the multiple objectives of a blue economy (Roberts and Ali, 2016; OECD, 2019, 2020a; Cisneros-Montemayor et al., 2021).

The rapid growth in the popularity and political capital of the concept has drawn attention to its potential capacity to

help drive a more integrated approach to ocean governance (Winther et al., 2020). Considering a blue economy approach as an integrating policy framework for the sustainable development of the ocean requires contextualizing the blue economy within broader ocean governance frameworks, namely, the United Nations Convention on the Law of the Sea (UNCLOS) and related agreements and the 2030 Sustainable Development Agenda and Goals (SDGs). Although these frameworks are applied through different modalities (rule-based and goal-based, respectively), they share a common mandate of a “holistic” and “indivisible” approach to the sustainable development of the ocean. However, they face implementation challenges when it comes to cross-sectoral integration and effective consideration of economic social and environmental dimensions of sustainable development. Given this context, a sustainable blue economy approach could provide a practical policy space for integration, building on the respective strengths of both systems and operationalizing SDG 16 (effective accountable and inclusive institutions) and SDG 17 (policy coherence) to achieve integrated sustainable development outcomes consistent with international law (Blanc, 2015; Stafford-Smith et al., 2016; Singh et al., 2018).

To date, there are few examples of national adoption of the blue economy as a transformational approach for the sustainable development of the ocean. A recent analysis of how blue economy has been enacted and governed across Commonwealth countries shows an array of plans and policies at different stages of development and implementation and institutional arrangements (Voyer et al., 2022). This review found that in practice, the blue economy may succeed if a more integrated approach to sectoral management is developed; however, there was less evidence that it was successful in driving integration of social, economic, and environmental objectives, with particularly limited engagement with equity objectives across many countries. This suggests the blue economy may not be fulfilling its potential for driving a truly integrated policy framework yet.

This study seeks to explore in depth the merit of the blue economy as an integrating policy setting for the sustainable development of the ocean, in particular the role of governance in enabling integration, through an in-depth examination of the experience of Seychelles, a blue economy early adopter and a global leader in blue economy implementation. Using Seychelles as a case study, we explored the following:

- The extent to which the adoption of the blue economy has provided a national pathway for the sustainable development of the ocean domain, consistent with the SDGs and UNCLOS.
- The extent to which blue economy governance arrangements have enabled effective integration of economic, social, and environmental dimensions of sustainability and cross-sectoral policy coherence

consistent with SDG 16 and SDG 17 and principles of good governance for sustainable development.

The following sections will introduce the analytical framework we developed, based on the principles of “good governance” in order to explore these research objectives, before introducing Seychelles as the case study area.

## Identifying “good governance” principles

As shown by Cisneros-Montemayor et al. (2021), the ability of any country to transition to a sustainable and equitable blue economy and to benefit from goods and services from its ocean resources depends more on enabling conditions such as socioeconomic and governance factors than on resource availability. This leads to questions as to what type of governance arrangements are best suited to given socioeconomic, environmental, and governance settings. Many countries around the world are currently considering the most appropriate governance arrangements for their context, including whether to strengthen existing governance arrangements or establish new ones.

Although governance is seen as a key enabler to transition toward a sustainable and equitable blue economy, there is no unified definition of governance. It broadly understood to include *concepts, practices, and institutions by which societal development is overseen* (Rudolph et al., 2020, p. 2). Governance is understood to be a *system of values, policies, and institutions by which a society manages its economic, political, and social affairs through interactions within and among the state, civil society, and private sector* (UNDP EU, 2004, p. 3). Bennett and Satterfield (2018) defined governance as “*institutions, structures and processes that determine who makes the decisions, how and for whom the decisions are made, whether how and what actions are taken and by whom and to what effect*” (Bennett and Satterfield, 2018, p. 2).

A number of governance theories and models have been developed to describe and explain structural configurations and processes of decision-making to achieve desired outcomes such as conservation, livelihoods, or sustainable development, each with a unique strength and application to a particular situation or scale of decision-making (Partelow et al., 2020; Rudolph et al., 2020). For the purpose of this study, we identify good governance as a possible model as our research primarily focuses on government effectiveness. Good governance as a model originates from development scholarship in response to “*the disjunct between aid and sustainable development and concerns related to issues of corruption*” and is based on the premise that “*successful governance is dependent upon good institutions*” (Stojanovic and Gee, 2020, p. 5). It is based on ideas of legitimacy, accountability, performance fairness, and direction, which are relevant to government

functions. We also selected this approach as it provides a practical articulation of what constitutes good governance, which is commonly accepted and understood by practitioners working in international development contexts. We conducted a review of a range of international relevant and influential “good governance” indicators. These included the World Bank Worldwide Governance Indicators (WGI) (Kaufmann et al., 2010), the UN principles of effective governance for sustainable development (United Nations Economic Social Council, 2018), SDG 16 and SDG 17 targets, and OECD indicators for policy coherence for sustainable development (OECD, 2019). In order to tailor our analysis to be specifically relevant in the context of a sustainable blue economy and how it can guide countries aiming to transition to a sustainable and equitable blue economy, we compiled a list of relevant governance indicators (Table 1).

The analytical framework focused on the dimensions of good governance related to the effective whole of government policy development and implementation. For example, the analytical framework includes political leadership and stability dimensions but investigates neither democratic processes *per se* nor the control of corruption, which are important dimensions of the World Bank Worldwide Governance Indicators (WGI) as a multilateral development bank.

## Seychelles blue economy as a case study

The concept of blue economy has been particularly attractive to Small Island Developing States (SIDS), as an opportunity to sustainably develop their marine resources to generate much needed income and employment, diversify their economy, reduce their energy and food dependency, overcome their climate and economic vulnerabilities, and protect their unique and often globally significant biodiversity assets (Roberts and Ali, 2016; Patil et al., 2016a; World Bank United Nations Department of Economic Social Affairs, 2017; World Bank, 2017; Voyer et al., 2020; Benzaken and Hoareau, 2021).

Seychelles has been a strong advocate of the blue economy concept in international fora since 2010 and is one of the few countries that is implementing a blue economy agenda (Voyer et al., 2022). The Seychelles experience provides an opportunity to explore in depth the merit of the blue economy as a policy setting for the sustainable development of the ocean, including the role of governance in enabling integration and add to the existing scholarship on blue economy in Seychelles (Bueger and Wivel, 2018; Techera, 2018; Schutter and Hicks, 2019; Bhim, 2020; Schutter et al., 2021; Bramley et al., 2022). Although lessons learned from the Seychelles experience cannot be generalized, they can nonetheless provide important insights into both successes and challenges and contribute to a blue economy community of practice, as well as inform global blue economy policy and academic discourses and policy settings.

TABLE 1 Dimensions of good governance adapted from the UN principles of effective governance for sustainable development (United Nations Economic Social Council, 2018) SDG 16 and SDG 17 (2015), WB Good Governance Indicators (WGI), and OECD indicators for policy coherence (2019).

Governance dimension	Description	Sources
Political leadership/commitment/ stability	Extent to which leadership drives blue economy as an integrated Framework	OECD 1 (2019) SDG 16 UNDESA 2018
Policy coherence	Extent to which blue economy is reflected/ mainstreamed in national and sectoral policies	OECD (2019) SDG 17.14 WB WGI
Whole of government policy making/policy coordination	Extent to which institutional mechanisms facilitate a coordinated approach to BE policy development and implementation	UNDESA 2018 SDG 16 WB WGI
Effectiveness/competence/Institutional capacity	The extent to which institutions are mandated and able to perform their functions	UNDESA (2018) SDG16 WB WGI
Partnerships	The extent to which national and international partnerships drive and facilitate BE implementation	SDG17.6, SDG17.9
Transparency and accountability	The extent to which access to information and Mechanisms for monitoring and reporting on implementation are in place and functioning	UNDESA 2018 SDG 16.6, 16.10 WB WGI
Equity and inclusiveness	Extent to which stakeholders are engaged in decision-making and BE implementation and benefit sharing	WB WGI SDG16.7 (OECD)

Seychelles is in the Western Indian Ocean just south of the Equator. It has an exclusive economic zone (EEZ) of 1.35 million km<sup>2</sup>, a land area of just 454 km<sup>2</sup>, and has a population of around 96 000, mainly concentrated on three main islands. Seychelles had a gross national income (GNI) per capita of US\$16 870 (2019), which ranks it as a high-income country. The two main pillars of Seychelles' prosperity are tourism and fisheries, both being ocean-based activities. In addition, Seychelles has one of the highest fish consumption per capita (circa 65 kg per annum) (Republic of Seychelles, 2013). Seychelles' unique island and marine environment is of global significance with one marine UNESCO World Heritage Site, the Aldabra Atoll, which is famous for its endemic population of giant tortoises and is rich marine life.

Due to its geography and socioeconomic characteristics, Seychelles' prosperity directly and indirectly depends on its coastal and marine environments; hence, there is critical importance of a well-articulated blue economy strategy to inform national development in a way that respects its marine ecological integrity. The adoption of a blue economy concept has been an opportunity to take stock and rethink the development model, starting from the new reality of being a high-income country since 2015, and looking to the coastal and ocean as a "development space" (Benzaken and Hoareau, 2021). The high-income status meant ineligibility to official development assistance

(ODA) and rethinking how to finance development and blue economy and exploring innovative finance mechanisms and new partnerships.

Seychelles initiated a national blue economy strategy in 2012, establishing a blue economy department and a *Blue Economy Research Institute as early as 2015, which led to the adoption of a Blue Economy Strategic Policy framework and Roadmap (2018–2030)* in 2018, hereafter referred to as the *blue economy roadmap*. Seychelles has achieved international visibility, thanks to a successful debt swap for conservation and climate change adaptation in 2015 and the issuing of the first blue bond for transitioning to sustainable fisheries in 2018 both of which contributing to the implementation of *Seychelles blue economy roadmap* (Republic of Seychelles, 2018; World Bank, 2018).

## Materials and methods

The research used a mixed methods case study approach (Patton et al., 2002), combining an analysis of government documents, 21 semistructured interviews with key actors selected for their role in the blue economy (2021), and country data collected by the lead author as an independent advisor to the government for the development of the Seychelles blue economy strategy over a 2-year period (2016–2018).

TABLE 2 Sample description.

Category of respondents	Numbers	Notes and recording sent	Feedback received
Government senior officials	9	Yes (8) one sent written comments	1
Politicians (former and present administration)	4	Yes (3) one sent written comments	2
Independent institutions	3	Yes	No
International partners	1 bilateral 2 NGOs 2 Multilateral	Yes	1
Total	21	20	4
Decline/no response*	3		
Total contacted	24		

\* 1 decline (local NGO), 2 did not respond (private sector representative and independent expert).

The desktop analysis was used to identify early trends, approach, and drivers, which informed the development and led to adoption of the blue economy roadmap. It involved the analysis of government policy documents, reports, and meetings minutes related to the development of the blue economy in Seychelles since it was first conceptualized, with particular attention to institutional arrangements for policy coordination and policy coherence. It also explored the extent to which blue economy objectives and strategic priorities had been “mainstreamed” in national development and selected “blue” sector-based strategies.

In-depth semistructured interviews (n21) were conducted with key actors selected for their role in the blue economy, including government (9), politicians (4), non-government institutions (3), and international partners organizations (5), and were administered remotely due to COVID-19, over a period of 2 months (June to July 2021) (Table 2).

The interview protocol investigated the following broad topics:

1. The impact of the blue economy as an agent of change,
2. The effectiveness of the blue economy as a strategic policy framework, and
3. The extent to which governance arrangements had facilitated integration of economic, environmental, and social considerations and policy coherence.

The design of questionnaires and analysis of interviews used two main approaches: the first approach was adapted from the most significant change qualitative methodology used in program evaluation studies (Dart and Davies, 2003). The value of this approach is the focus on perceived change (usually through story telling), rather than objective measures of change, based on meeting predetermined objectives and goals. In the context of this research, it was elicited by asking participants to reflect on their perception of the most significant change (positive or negative) that they believe occurred in response to the blue economy development in Seychelles and to highlight

what they thought were successes/benefits and challenges. This approach provided a way to perform a more in-depth analysis of the role of governance in blue economy development. The second approach applied the good governance typology outlined in Table 1 to assess the effectiveness of blue economy governance arrangements. Table 3 details how each governance dimension was considered using the data collected.

Interviews were transcribed and sent to participants for accuracy and for additional information. Responses were first entered into an Excel spreadsheet to get an overall sense of the spread of the responses to both most significant change and governance effectiveness questions. The aim was to identify the range, rather than the frequency, of any specific theme, in part to respect the anonymity of respondents, some of whom have a high profile in the small community in which they work and live, and in part because of the small sample size. Responses to the most significant change questions were categorized as drivers, positive/successes, and challenges/gaps as per the questions. The spreadsheet was then reexamined in order to draw the major themes and compare and contrast ideas, concepts, and perceptions. Responses to the governance questions were coded according to the predetermined coding framework of good governance described in Section 1.1 and then categorized as positive/successes or challenges. Quotes to illustrate findings against each theme are included in Tables 5, 6.

The analyses of the interviews and the desktop review were complemented by the lead author in country information and knowledge obtained over a 2-year period. The lead author as recruited by the Commonwealth Secretariat as an ocean governance advisor at the request of the government of Seychelles to assist in the development of the Seychelles blue economy roadmap and all aspects of blue economy implementation nationally and internationally. Trusted relationships established over that period and ever since were critical to the understanding of the Seychelles context, government structures, processes, and knowledge of the blue economy policy development; access to blue

TABLE 3 Dimensions of good governance and methods engaged to explore each dimension.

Governance dimension	Description	Methods
Political leadership/commitment/stability	Extent to which leadership drives blue economy as an integrated Framework	Interviews/advisor
Policy coherence	Extent to which blue economy is reflected/mainstreamed in national and sectoral policies	Policy analysis/Interviews
Whole of government policy making/policy coordination	Extent to which institutional mechanisms facilitate a coordinated approach to BE policy development and implementation	Institutional analysis/interviews/advisor
Effectiveness/competence/institutional capacity	The extent to which institutions are mandated and able to perform their functions	Interviews/advisor
Partnerships	The extent to which national and international partnerships drive and facilitate BE implementation	Interviews/advisor
Transparency and accountability	The extent to which access to information and Mechanisms for monitoring and reporting on implementation are in place and functioning	Policy analysis/interviews/advisor
Equity and inclusiveness	Extent to which stakeholders are engaged in decision-making and BE implementation and benefit sharing	Institutional analysis/Interviews/advisor

economy-related documents, reports, and notes; and identify willing participants to interviews. The contribution of the advisor helped validate and contextualized the results of both the desktop policy analysis and the results of the interviews.

The triangulation of those three data sources allowed for robust insights into the blue economy as a transformative pathway for the sustainable development of the ocean and the role of good governance in facilitating effective integration of social, economic, and environmental dimensions toward a sustainable and inclusive blue economy.

## Results

### Genesis of blue economy

The analysis of available published and unpublished government documents shows that as early as 2012, the government of Seychelles acknowledged the cross-sectoral nature of the blue economy concept and established an inter-ministerial committee initially to coordinate Seychelles co-hosting of the 2014 Blue Economy Summit in Abu Dhabi, United Arab Emirates (UAE). The Abu Dhabi Declaration adopted the blue economy concept as one that emphasized conservation and sustainable management of the ocean and complemented the green economy (United Nations, 2014). It informed the UN Third Conference on SIDS (September 2014, Samoa). The Seychelles blue economy was conceptualized in the context of sustainable development in the government's documents and used to position Seychelles with international partners (Nevill, 2014). In his foreword to the *Blue Economy Seychelles'*

*vision for a blue horizon* (2014), Former President Michel elaborates on Seychelles blue economy vision: "Sustainability in the context of blue economy is all about our ability to use our oceanic space as opportunities for development...protected areas that improved biodiversity conservation, climate change adaptation and provide increased food security" (Agrippine et al., 2014, p. 12). There was an acknowledgment at the time that there was a need to clarify the status of a blue economy portfolio and mandate in the context of existing national development strategies and governance, specifically in relation to the Sustainable Development Strategy (SSDS, 2012-2020) (Republic of Seychelles, 2012) and the National Development Strategy (NDS) (Republic of Seychelles, 2015).

A National Stakeholder Consultation Forum (December 2014) was the first step toward building an inclusive process for the development of a blue economy strategy. The Forum brought together national and international participants to explore the opportunities a blue economy could bring to Seychelles (e.g., fisheries value adding, biotechnology, renewable energy, aquaculture, tourism, oil and gas, and infrastructure). Issues emerging from the forum included the importance of the knowledge of the marine environment, the need for an operational definition of blue economy for Seychelles, the importance of maximizing the value of existing products, building technical and professional capacity of Seychellois, creating an enabling environment to support local Seychellois entrepreneurs, and strong governance to drive blue economy implementation across government backed with adequate funding (Republic of Seychelles, 2014).

With the support of international partners, and in particular the Commonwealth Secretariat, an inter-ministerial group on blue economy, a Blue Economy Officials technical working

group and a Commonwealth Advisor team were established to oversee the development of a blue economy roadmap, as part of a process to integrating the blue economy concept into the country's policies and strategic frameworks. A meeting of senior officials and Commonwealth advisors held in London laid down the foundations of a blue economy roadmap (Commonwealth, 2015). In 2015, a blue economy department was established to coordinate the government agenda including the development of a blue economy roadmap. At the request of the government, a dedicated Commonwealth expert, hosted into the blue economy department, was appointed for 2 years (2016–2018) to progress the development of Seychelles blue economy roadmap.

## The Seychelles blue economy strategic policy and roadmap (2018–2030)

The Seychelles Strategic Policy Framework and Roadmap (2018–2030), hereafter the blue economy roadmap, was adopted in 2018 (Republic of Seychelles, 2019a). Informed by international blue economy policies and existing Seychelles development policies, and in particular Seychelles Sustainable Development Strategy (2012–2020), it was initiated by a whole of cabinet ministerial retreat in 2016 (Republic of Seychelles, 2016). The retreat report pointed out that *“the transition to a blue economy model would require the following: Valuing the ocean as a development space, and focusing on sustainability; Changing the business model across government—mainstreaming a blue economy vision and approach in development planning; Developing a culture of shared responsibility across government; Investing wisely in strategic priority areas for action (e.g., over 5, 10, 15 years); Creating the enabling environment to make this transition happen (capacity, finance, knowledge/tools and innovation); Maximizing international/regional opportunities; Focusing on results and measuring success; and Maintaining international leadership”* (Republic of Seychelles, 2014, p. 4). Following cabinet consideration of the report and decision to proceed with the roadmap, a whole of government consultation process and analysis of the status of blue sector policies were undertaken to ensure the roadmap was evidence-based, targeted, and achievable, yet proposing strategic opportunities for a transition to a sustainable blue economy (advisor notes). Despite proposals for a broad-based stakeholder consultation, consultation was primarily focused on government stakeholders, with some input from local experts, civil society, and international organizations (advisor notes).

The vision of the blue economy roadmap *“To develop a blue economy as a means of realizing the nation's development potential through innovation and knowledge-based approaches, being mindful of the need to conserve the integrity of the Seychelles marine environment and heritage for present and future generations”* (Republic of Seychelles, 2019a) is based

on principles of efficiency, innovation, equity, sustainability, resilience, transparency, inclusiveness, accountability, and good governance. It articulates Seychelles “blue economy brand” as a unique comparative advantage based on its sustainability credentials, builds on Seychelles national and international legal and policy frameworks and flagship initiatives such as a marine spatial planning and innovative finance, and puts forward a prioritized agenda for action and investment to 2030 under four pillars, namely, *creating wealth, sharing prosperity, securing healthy and resilient ecosystems, and strengthening the enabling environment* to achieve the leaders' early vision of a sustainable and equitable blue economy. Under each pillar, 2030 objectives and strategic opportunities were identified to inform sector-based planning and development. Due to time constraints, roles, and responsibilities as well as costings were postponed post-adoption by the cabinet in 2018. Importantly, the *blue economy roadmap* is closely aligned with the Sustainable Development Agenda and Goals, which the government signed up to in 2015 and aims to provide an integrated policy and reporting framework for the sustainable development of the ocean (Table 4).

Progress on the implementation of the *blue economy roadmap* since adoption includes the development of a 5-year *Blue Economy Action Plan* (2019) with the support of UN Economic Commission for Africa (UNECA) (Republic of Seychelles UN Economic Council for Africa, 2019). The action plan focuses on the key implementation priorities of communication, whole of government coordination, establishing a blue economy satellite account, and advancing strategic projects including carbon neutrality, marine litter, maritime security, and regional integration (Benzaken and Hoareau, 2021).

## Blue economy as an agent of change: Change, drivers, successes, and challenges

Table 5 summarizes the thematic analysis of interviews, in relation to what interview participants identified as the most significant change (positive or negative) from the development of the blue economy agenda in Seychelles. They fell under the following themes: international engagement; awareness of ocean as a development space and socioeconomic opportunities; the realization of the linkages between ocean sustainability and livelihoods; the availability of finance; the awareness of threats to Seychelles coastal and ocean environments including overfishing, pollution, and climate change; the establishment of dedicated blue economy institutions; and an increased focus on whole of ocean planning and management. There was significant overlap in responses between most significant change,

TABLE 4 Alignment of Seychelles blue economy roadmap with the SDGs.

Blue economy strategic priorities	Description	SDG
Creating sustainable wealth	Sustainability of existing sectors (fisheries, tourism and ports) and diversification through value chains and sustainability branding; Exploring feasibility of emerging sectors (mariculture, renewable energy, oil and gas, ICT, Biotechnology, trade)	SDG 7, 8, 9, 11, 12, 14
Sharing prosperity and food security	Local Production systems and markets; healthy lifestyles Access to quality education and Skill development, professional training and job opportunities Local private sector development and entrepreneurship	SDG 2, 3, 4, 10
Securing healthy and productive oceans	Natural capital accounting Protection of natural assets; ocean/coastal risks reduction (coastal development, marine pollution, ocean acidification) Blue economy/Climate resilience (adaptation and mitigation)	SDG 6, 13, 14, 15
Strengthening the enabling environment	Integrated coastal and marine planning; R&D& innovation; knowledge management; financing, maritime security; partnerships; international and regional cooperation and advocacy;	SDG 14, SDG 17
Blue governance	Legislative reform, whole of government institutional coordination; policy coherence; stakeholder participation; ocean stewardship; transparency and accountability; blue accounting; monitoring and reporting.	SDG 16, 17

successes/benefits (positive change), and challenges and gaps (negative change).

When asked about the key drivers of blue economy development in Seychelles, responses ranged from high-level political leadership, strong international partnerships, dedicated blue economy institutions for blue economy implementation, attractive development and livelihood opportunities, access to private capital through innovative finance, and availability of new marine knowledge and expertise for integrated ocean planning.

Global policy drivers such as the SDGs placed Seychelles (and other SIDS) at the forefront of the blue economy and ocean sustainability with high expectations for proof of concept at the national level. The nexus among high-level leadership, international engagement, strong international partnerships, a willingness to engage in innovative approaches, and the availability of new marine knowledge was seen as instrumental in facilitating access to finance and expertise for ocean planning as well as the establishment of blue economy institutions for the whole of government implementation.

The completion of the debt swap for Conservation and Climate Adaptation (2015) and the establishment of the Seychelles Conservation and Climate change Adaptation (SeyCCAT) to administer the proceeds and the issuance of the Seychelles Blue Bond for transitioning to sustainable artisanal fisheries (2018) allowed the completion of the Seychelles Marine Spatial Plan and the designation of 30% of the EEZ as marine-protected areas and importantly the availability of ongoing local

finance in the form of grants for local conservation projects and loans for sustainable fisheries and diversification. These were the most cited successes arising from implementing a blue economy agenda.

The establishment of blue economy structures including the blue economy department, the Blue Economic Research Institute, and the adoption of the Seychelles Blue Economy Strategic Policy framework and Roadmap (2018–2030) were seen as key drivers providing the basic “*architecture*” necessary for the implementation of a whole of the government blue economy agenda. The development of the blue economy 5-year implementation plan (2019) in partnership with UN Economic Council for Africa (UNECA) and the development of the Blue Economy Research Institute marine research capability in partnership with international organizations were important steps in progressing the implementation of the blue economy roadmap.

The availability of sustainable development and livelihood opportunities the ocean space offered through diversification of existing sectors such as tourism and fisheries as well as the recent adoption of the aquaculture regulations and financial support for the development of a local biotechnology sector (African Development Bank *Blue Economy Micro-Small Medium Enterprises Technical Assistance* project 2020) were also cited as key drivers for implementation.

Transitioning to implementation, several challenges were identified, ranging from the country dependency on a small number of economic activities, energy, and food imports

TABLE 5 Exploring blue economy as an agent of change: drivers, successes, and challenges.

Most significant change	Drivers	Successes/benefits	Implementation challenges/gaps	Example quote
International engagement/leadership (regional/global)	High level Political will and vision International agenda (SDGs, Blue Charter) High expectations	International accountability Seychelles as African Union blue economy champion Profile at the UN in NYC	Maintaining momentum across political changes and continuity of high-level Ministerial leadership	“With the new administration, initially there was no political will, now blue economy is acknowledged as an important policy for Seychelles and the new Minister for Fisheries and Blue Economy is very active in supporting diversification and value adding of marine resources” (senior official-1) “On the issue of visibility and expectations, it is not just about good stories but also challenges and teething problems. We are a large ocean state, however, when it comes to implementation, we are still a SIDS with limited resources and capacity to match and we need financing and technical support. Blue economy is like a building a ship as you are sailing it” (Politician-10)
Finance	Strong international partnerships (finance/research and innovation) Access to finance- Investor confidence Capital markets interest in investing in sustainability	Blue bond and debt swap negotiated and establishment of SeyCCAT Long term financing flow	Dependence on external expertise ODA eligibility, Cost of finance Meeting commitments post COVID Mixed results in disbursing of funds in particular Blue Bond loans BE Financing gap still Investment strategy needed	“The blue bond was an international first. It demonstrated that SIDS can think outside the box” (Senior official-5) “Investors are frustrated at the slow pace of implementation even if they are happy about the [bluebond] initiative” (international-14) “SeyCCAT is a transparent mechanism for attracting and delivering finance for ocean, maintaining international relationships, building awareness and providing and enabling environment” (Senior official-23)
BE Governance and institutions [blue Economy Department, Blue Economy Research Institute, and the independent Seychelles Conservation and Climate Adaptation Trust (SeyCCAT)]	BE Department as focal point for whole of government blue economy implementation	Blue economy policy approved by Cabinet Opportunity to develop a Blue economy research agenda Implementation Plan Socioeconomic and ecological assessment (UNECA)—BE Contribution to GDP. BE project database Youth mobilization on blue economy	Whole of government/Policy coordination constrained by Authority and clarity of mandate of the Blue Economy Department following successive government restructure, Overcoming silos. Lack of whole of government ministerial oversight and formalized collaboration mechanisms between BE institutions Institutional capacity—IT technology infrastructure and training Communicating blue economy and sustainability to stakeholders. empowering local communities; lacking. Stakeholder	“The Blue Economy Department looks at projects under the banner of blue economy, rather than looking at its core functions such as coordination and communication” (International-15) “The establishment of the Blue Economy Department has provided a national focal point for ocean related matters including the development of the Blue Economy Roadmap” (senior official 23) “There is not enough collaboration between institutions. It is slow moving. Without sufficient coordination, slow can be paralysis” (International-14)

(Continued)

TABLE 5 (Continued)

Most significant change	Drivers	Successes/benefits	Implementation challenges/gaps	Example quote
Awareness of ocean as development space and sustainability	Attractiveness of ocean resources (fisheries and tourism) Socioeconomic opportunities through Diversification (eg fisheries value chains) Increased research for sustainable development	Aquaculture regulations, biotechnology, Seychelles “blue brand” Linking conservation to economic development Focus on sustainability	Regulating/negotiating access to ocean resources for local benefits COVID 19- dependence on tourism revenue Slow uptake of local business opportunities Mainstreaming sustainability, innovation and resilience thinking in ocean sectors, local business, and financial institutions Sustainability of extractive industries and fisheries	“Without the element of sustainability brought about by the blue economy our economic potential would have been severely limited” (Politician-7) “The pandemic has shown that relying on tourism solely for government revenue was a vulnerability. Blue economy offers opportunities for diversification including biotechnology and the use of marine products such as seaweeds” (Senior official-1)
Linkages between ocean health, livelihoods and job opportunities			Communication, Education, and Skill development /local entrepreneurship/incubators Transitioning to sustainable small-scale fisheries Communicating blue economy and sustainability to stakeholders and empowering local communities	“There is still confusion about what blue economy means at stakeholder and government levels” “We have a clear direction for our pursuit of economic diversification and the attainment of socio-economic opportunities” (Senior official-2) There are weak linkages between science and policy... there is a lack of understanding of the process of research and development which brings benefits. Linking “ <i>knowledge people and profit</i> ” (independent-19)
the awareness of threats to Seychelles coastal and ocean environments and focus on whole of ocean development approach and Ocean sustainability	Improved knowledge of the marine environment and threats (overfishing, marine pollution, climate change)	Marine spatial Plan and 30% of EEZ designated as MPAs Youth mobilization on coastal and ocean protection and marine pollution Ocean and climate: Blue carbon initiatives/Blue Economy in Seychelles <a href="#">Secretariat (2021)</a> Regional infrastructure for maritime security Seychelles contribution.	Ocean Authority for MSP implementation on pause, access to finance for MSP/MPA management Maritime surveillance capacity and Compliance and enforcement lacking	The MSP process has provided traction to the blue economy implementation. The commitment to meet 30% of EEZ as MPAs through Seychelles debt restructure combines debt reduction and a sustainable development approach to the ocean, which is consistent with our national objectives” (Senior official 23) “Maritime security is not yet well-addressed. Monitoring Compliance and Surveillance capability is lacking including for the JMA”(Senior official 23)

Themes from interview responses.

and the impacts of external factors such as COVID-19, illustrating the vulnerability of Seychelles as a SIDS to the governance and institutional challenges for implementing a whole of government blue economy agenda. These institutional challenges ranged from the loss of political momentum, high-level strategic oversight, barriers to effective coordination across government (including a lack of clarity regarding the mandate of the blue economy department following successive government restructures), and a lack of formalized collaborative mechanisms across government and between blue economy institutions. Other challenges raised included access to financial resources for implementation commensurate with the needs and the slow local uptake of blue economy opportunities. Communicating the concept of blue economy and sustainability across government and blue economy stakeholders was cited as ongoing challenge, which would require a change in local mindsets toward sustainability, and skills and capacity to improve uptake of blue economy opportunities.

## Effectiveness of blue economy governance arrangements

A combination of a desktop analysis of policy and institutional arrangements, interviews, and information collected by the advisor over a 2-year period was used to analyze the effectiveness of blue economy governance arrangements for the whole of government blue economy implementation. A summary of main themes is outlined in Table 6 and described in detail in the following sections, grouped according to the typology of good governance.

### Leadership and political stability

As highlighted in the previous section, political leadership and commitment were seen as essential to ensuring effective blue economy integration across government sectors. At the same time, maintaining momentum over time and across political changes were seen as a key challenge to ensure the longevity of blue economy as national policy for the development of the ocean. Some respondents mentioned efforts at cross-party communication to ensure blue economy remained a key component of Seychelles sustainable development landscape. International expectations on delivering outcomes were seen both as an opportunity and a challenge, according to some respondents, as other countries were now sharing international leadership in the blue economy space and hence perceived as competition for access to resources. Finally, COVID-19 compounded those impacts as tourism revenue dropped and health priorities took center stage. However, COVID-19 was also seen as an opportunity to promote a blue recovery, understood as *supporting a recovery that addresses most critical structural challenges of SIDS, enhancing the resilience and*

*sustainability of existing key economic sectors, and fostering economic diversification by unlocking new, more resilient, and sustainable development opportunities that can attract private investments and mobilize domestic resources (OECD, 2021).*

## Policy coherence and institutional coordination

The desktop analysis of available policy documents and reports was used to investigate the extent to which the blue economy was mainstreamed in national development and relevant blue economy sectoral policies. This included a review of the institutional arrangements under those policies, including blue economy institutional arrangements. The thematic analysis of interviews on the effectiveness of blue economy institutional coordination complemented the findings of the desktop policy and institutional analysis and highlighted the successes and challenges facing the transition from sustainable blue economy development to implementation and reporting.

The comparative analysis of the *blue economy roadmap* and the *National Development Vision (2019–2033)* and the *5-year National Development Strategy (NDS, 2019–2023)* shows that although developed through separate ministries and processes, they shared a similar vision, principles of sustainability, resilience, and equity and include strategic economic, social, environmental, and enabling objectives. The NDS is organized around the six pillars (good governance, people at the center of development, social cohesion, innovative economy, economic transformation, environmental sustainability, and resilience), which are closely aligned with the four strategic pillars of the blue economy roadmap, as described in Table 3. The NSD implementation strategies place a strong emphasis on good governance and government effectiveness, strengthening public sector service delivery and behavior change, transparency, and accountability and strengthening financial management and resource mobilization. These strategies, which reflect the mandate of the Ministry of Finance, Trade and Economic Planning, are acknowledged as essential enablers in the *blue economy roadmap*. The *blue economy roadmap* includes additional ocean-focused cross-cutting, enabling activities such as integrated coastal and ocean planning, marine research and innovation, maritime security and safety, regional cooperation, and international advocacy (Supplementary Table 1).

The analysis of the extent to which the vision and strategic priorities of the *blue economy roadmap* were mainstreaming in the new *Fisheries Policy (2019)*, the *Tourism Master Plan (2019–2023)*, and the *Nationally Determined Contributions (Secretariat, 2021)* to the Paris Agreement shows similar trends. Although the *Tourism Master Plan* does not refer to blue economy or the *blue economy roadmap* (nor the *National Development Strategy*) *per se*, the vision, objectives, and priority actions are nonetheless broadly aligned with many of strategic opportunities identified in the *blue economy roadmap* for this sector. The *Fisheries Policy (2019)* did

TABLE 6 A summary of key governance themes from interviews.

Governance indicator	Successes/benefits	Challenges	Example quotes
Political commitment	Early High-level political commitment	Maintain momentum/high level political leadership, BE advocacy (national/international)	See above
BE whole of government coordination and processes	BE architecture: high level BE ministerial Council and Stakeholder Forum BE department coordinating institution in Ministry of Finance; University based Blue Economy Research Institute; Independent Seychelles Conservation and climate change adaptation Trust to disburse grants for marine conservation, climate resilience MSP/blue economy implementation Consultative Marine spatial planning of Seychelles EEZ completed (2020)	High level ministerial BE oversight Stakeholder Forum and MSP regulatory Authority on hold Representation on Stakeholder forum (eg private sector and NGOs) Move of BE department to Vice president office and Ministry of fisheries—Clarity of coordination mandate and authority of Blue Economy department (eg coordination and or projects focus) Overcoming public sector silo culture BE research agenda and finance to drive marine/blue economy research ( <i>knowledge, people, profit</i> )	“The Blue Economy governance has been scrapped. The Blue Economy Department is not able to coordinate across government and stakeholders” (Senior official-4) “Instead informal and good relationships between officials” (Independent,-20). “The Blue Economy Department has no Authority to deliver or influence delivery, wrong institutional mechanism” (International-13) “Blue economy has lost its place and importance as an overarching framework for the sustainable development of the ocean in the policy and institutional landscape with loss of institutional memory” (International-20) “The Blue Economy Forum does not have enough private sector representation” (independent-20) “Collaboration across silos and budgets is difficult, agreement in principle but no consensus on roles and responsibilities” (Senior official 23)
Effectiveness/ Institutional capacity	Improved M&E Communication and legal capacities in BE department Public sector restructure to reduce duplication of roles and expenditure and performance-based service delivery	Strategic thinking/leadership needed. Improved coordination competencies needed. Reliance on expat technical capacity; better use of qualified young professionals; career paths. Staff turnover	Capacity is not an issue, there are many qualified young people” (Politician-8) “Right people for the right jobs. A public service commission should advertise interview and select public servants on merit. They should not be appointed by the President” (NGO-18) “The mindset in the government. It is a very hierarchical Top down approach, not bottom up as yet with resistance to change, It is a challenge” (Senior Official-4) “The Seychelles public sector was out of control under the previous administration with too many parastatal bodies with significant overlap and duplication. The new administration is streamlining the public sector” (international-15)
Policy coherence	Blue economy Strategic policy framework and roadmap (2019–2030) adopted in 2018 and implementation Plan (2019)	Slow progress in implementing the roadmap/implementation plan Perception that BE is taking other ministries’ responsibilities Mainstreaming BE in the national economic framework (balancing economic environmental social and cultural goals) eg National mainstreaming in development Vision 2033 and 5 year strategy (2019-2023) and sectoral policies.	“Significant alignment with other overarching national strategy such as the NDS” (Senior official 5) “A challenge is the increasing more intense competition for limited resources, there are instances whereby sectoral strategies take precedence over assigned responsibilities in the Roadmap” Blue economy is not mainstreamed in economic planning. It is considered an aspiration it, should have been the center point, not an add on” (Senior official-2)

(Continued)

TABLE 6 (Continued)

Governance indicator	Successes/benefits	Challenges	Example quotes
Equity and inclusiveness, communication and Stakeholder engagement	Successful Youth mobilization around blue economy and marine conservation Stakeholder engagement in MSP. Improved BE visibility (social media, national press)	Improving coordination across sectors and budgets High level stakeholder platform for advice to government on BE implementation- representation of private sector and NGOs lacking Lack of an BE integrated communication strategy with consistent messages and customized to government/non-government stakeholder; BE communication not just BE institutions responsibility Improving coordination of comm activities across BE institutions and sectors A hoc educational activities No community engagement yet	“The blue economy concept is not understood. It operates as a top-down approach. Stakeholders are leaving the process” (Independent 20) “There is No platform for dialogue (Senior Official-4) “Younger generation takes a more holistic view of the ocean, BE is a pathway to a blue society, which includes social and cultural aspects, not just economy” (Politician 10) We need to accelerate the availability of information; more work is needed to understand information needs and accessibility” (senior official-5) “BE, SBS, SeyCCAT all have awareness programs. We need to improve our working with other bodies” (senior official-5)
Transparency and accountability	BE M&E framework in development Ministry of finance implementation of Results based Management framework with PPBB focal point in each ministry Satellite accounts for tourism and fisheries	Independent review of BE implementation across sectors needed. Effective Platform for coordinating M&E processes across government and non-government needed Accessibility and availability of BE information constrained by internet access, effective whole of government information systems	“There are no mechanisms for monitoring and reporting progress that I am aware of” (independent-12) “The focus now is being placed on the M&E framework. It brings together 22 implementers to coordinate actions” (senior official 2)
Partnerships	Seychelles first report to the Fisheries Transparency Initiative Global office in Seychelles Seychelles high international/regional profile/leadership/advocacy on BE and oceans Access to networks of partners and investors for oceans and BE implementation and climate resilience Effective partnerships with international organizations on finance, research and marine protected areas (investor confidence) Seychelles as African Union Blue economy Champion Mainstreaming of Seychelles/SIDS in international agendas through coalition (eg AOSIS) Willingness to partner and innovate, partners’ access to Seychelles high level decision-making, good governance, good place to work	New platforms and actors on blue economy ocean and climate for international attention COVID and climate change has shifted the global narrative and reshaping the BE narrative Discontinuity between global advocacy and national implementation Managing expectations if not translated into practice Transforming global opportunities into national capacity and benefits Improved partner/donor coordination COVID/Climate change and changing priorities Difficulty of engaging government on long-term commercially successful projects.	“International partnerships are key to MSP implementation to attract expertise, build technical capacity and benefit from lessons from abroad which would be applicable to Seychelles” (International-12) “For ocean, development and climate change are one of the same in SIDS as they are interconnected” (politician-10) “International interest in financing blue economy has been good for Seychelles including the private sector” “There is limited donor harmonization despite the requirement for it... a Government roundtable might be an option” (International-14) “Successful advocacy more than implementing. Talk to talk but not walk the talk” (International-17) “Lots of positive, but too much talk about BE globally and not enough about making it work at home” (International 17) “Experience across the world shows that political will and good counterparts in government ready to commit and follow through are essential” (International-14)

refer to the *National Vision 2033*, the *National Development Strategy 2019–2023*, and the *blue economy roadmap* in its preamble and was also found broadly aligned with strategic opportunities identified in the *blue economy roadmap*. Both policies shared common features including the diversification and sustainability of their sector as well as the need to ensure economic benefits flow to local people, through access to training and education, and entrepreneurship, which is consistent with the *blue economy roadmap* strategic priorities of creating sustainable wealth, sharing prosperity and social equity. The Nationally Determined Contribution (Secretariat, 2021), which is targeted to achieve the commitments of the country to the Paris Agreement, identified blue economy as a major strategy to achieve climate adaptation and mitigation targets (Supplementary Table 2).

The review of the institutional landscape under the policies analyzed before shows a multiplicity of implementation structures, each with their own mandate and stakeholder engagement. The extent to which these processes interacted was not clear, although interview participants indicated that cross-membership was common (Supplementary Table 3). As mentioned by one respondent, the planned review of the NDS in 2022 and the mid-term review of the *blue economy roadmap* may be an opportunity to foster closer alignment and greater synergies, as well as improved institutional coordination and harmonization of stakeholder engagement and communication.

In contrast to the desktop analysis, feedback from interviews on policy coherence and coordination revealed more critical perspectives on the mainstream of blue economy in the government policy landscape. Some respondents indicated that the blue economy was originally designed as the template for a national development policy and economic planning, given the dependence of the country on the ocean for prosperity. Others considered the blue economy to be aspirational and no longer a relevant, integrated framework for the sustainable development of the ocean. A lack of mainstreaming the *blue economy roadmap* objectives in national development strategies and sectoral policies was widely reported by the participants and attributed in part to the move of the blue economy portfolio from the Ministry of Finance Trade and Economic Planning, following successive government restructures.

It was also attributed to the perceived inability of the blue economy department to effectively coordinate a blue economy agenda across government actors. Expectations were that policy alignment was the responsibility of the blue economy department parent ministry, now the Ministry of Fisheries and Blue Economy, not a shared commitment. The latest government restructure, while elevating blue economy to the ministerial level, nonetheless sent the message that the blue economy was about fisheries, rather than a whole of the government development framework for the ocean. Some respondents suggested going back to the original vision

of the blue economy and the establishment of Ministry of Blue Economy as a central coordinating mechanism with the authority to better integrate social, economic, and environmental goals and architectures. Others suggested an Ocean Ministry, ministerial committee, and stakeholder committee under the Office of the President and vetted by the parliament. Some respondents saw the need for continuity and a long-term blue economy plan as essential to attract investment. The disconnection between the policy analysis and interview responses seems to indicate the challenges to transitioning from policy to implementation, the critical role of the effective whole of government coordinating mechanisms, and the need to generate ownership and a sense of common responsibility for implementation.

### Governance arrangements for whole of government blue economy coordination

The institutional analysis showed that besides the blue economy department, which has been functioning since 2016 under various parent ministries, dedicated institutional arrangements for whole of government coordination and stakeholder engagement have been either slow to establish or short lived (Supplementary Table 3). Proposals for institutional arrangements for the development and implementation of the *blue economy roadmap* were not fully supported by the cabinet in 2016 and again in 2018. Eventually, the government established a Blue Economy Ministerial Council in 2019 chaired by the Vice President, to provide strategic leadership and oversight, and a Multi-Stakeholder Forum as a platform for dialogue and advice to the Ministerial Council on cross-sectoral implementation of blue economy, which were abolished in 2020 following the change of government, creating a governance gap. Three independent bodies, the Seychelles Blue Economy Research Institute hosted at the University of Seychelles, the independent Seychelles Conservation and Climate Change Adaptation Trust (SeyCCAT) established under legislation, and a proposed Seychelles Ocean Authority as the regulatory body, to implement the MSP complete the institutional architecture for blue economy implementation.

The desktop analysis and feedback from interviews of blue economy institutions for whole of government coordination raised issues of duplication, relationships to other mechanisms, collaboration between blue economy institutions, and lack of continuity of high-level oversight and meaningful participation of stakeholders. In the absence of high-level whole of government oversight and directions, the blue economy department has been the focus of criticism of whole of government coordination. The Seychelles Conservation and Climate Adaptation Trust, which was established as an independent board under legislation to administer the proceeds of the debt swap for conservation and climate adaptation,

was seen as a successful governance model with a board consisting of government, private sector, and civil society and a *de facto* avenue for stakeholder engagement and support through the disbursement of grants for local projects (Supplementary Table 3).

### Effectiveness and institutional capacity

Interviews showed that the capacity of the blue economy department, as the primary mechanism for coordination, had improved in aligning and prioritizing blue economy strategic actions across government stakeholders, developing a blue economy project database development, monitoring and evaluation, and media and communication. Its ability to effectively coordinate across government sectors with other blue economy institutions was however constrained by weak mechanisms for the whole of government coordination processes, leading to duplication and competition for resources and reinforcing silos. Some respondents criticized undue reliance on external technical expertise and insufficient use of qualified young professionals, pointing to deeper public sector systemic issues. The need to build capacity, and retain and better use existing local professional expertise within government and non-government sectors was seen as essential to reduce dependency on international expertise. Career paths and mobility were mentioned as possible strategies. The latest restructure of the public sector was welcomed by some respondents as they considered that it would reduce duplication and public expenditure and improve overall effectiveness of service delivery. It was seen as a positive step toward reducing the multiplicity of agencies and bodies established over time under previous administrations as their functions repatriated under the relevant ministries. There were also concerns that the blue economy department made *ad hoc* and short-term decisions, rather than decisions supported by long-term strategic planning. Some respondents mentioned the recent move toward a “results-based management” framework and performance-based service delivery reforms across government sectors supported by the World Bank as a positive step to address some of those issues.

### Equity and inclusiveness

Both the *blue economy roadmap* and *implementation plan* place a strong emphasis on social equity as a key to their vision and objectives. Although stakeholder engagement was meant to be an essential feature of institutional arrangements for the development and implementation of Seychelles blue economy, implementation showed mixed results. The respondents noted success in a strong youth mobilization around blue economy and marine conservation including initiatives such as SIDS Youth Aims Hub (SYAH) blue economy internship program first supported by the UK government and then by the private

sector. Overall, despite some early stakeholder engagement in the design of a blue economy roadmap and the inclusive blue economy vision and social objectives, there was limited reference in interviews to non-government stakeholders’ engagement besides SeyCCAT and the MSP process led by the Ministry of Environment, Energy and Climate Change (MEECC) with the technical support of the Nature Conservancy.

This may be a bias of the mainly government affiliation of interviewees, but some mentioned a failure of effective stakeholder engagement. A communication strategy was initially developed as part of the development of the blue economy roadmap, but its implementation was limited (advisor notes). One of the challenges identified by the respondents was uncoordinated blue economy communication and stakeholder engagement across government ministries, which sent confusing messages about the blue economy. Some respondents nonetheless acknowledged the recent improved blue economy profile in the national press and social media. Others noted the increasing *de facto* role of the SeyCCAT in blue economy communication and engagement through the financing of local community blue economy projects. The Blue Economy Multi Stakeholder Forum, proposed as early as 2016 (advisor notes), as a platform for an inclusive blue economy dialogue, was established in 2019 but did not live up to expectations with limited private sector, civil society, and community representation. At the time of writing, there is no knowledge of formalized mechanisms for stakeholder participation in blue economy implementation. The lack of clear and consistent messages around the blue economy and ongoing stakeholder engagement over time were major impediments to its wide acceptability within government and by the community and the persistence of the view that blue economy was only serving the political agenda of the day. This is not helped by the fact that the blue economy roadmap document and 5-year implementation plan have yet to be made widely available (advisor notes). In the absence of such critical information, misconceptions arise and trust in government is eroded (OECD, 2020b).

### Transparency and accountability

The respondents cited the implementation of macro-economic reforms post-Global Financing Crisis (2008) following the defaulting on debt payments, as the trigger for introducing market approaches of a largely centralized economy and the introduction of the mechanisms for accountability in the public sector, including the establishment of the National Bureau of Statistics. The implementation of results-based management across government sectors supported by the World Bank, and the establishment of satellite accounts for fisheries (2022) and tourism (2021) were seen as important improvements in accountability of government blue economy financial flows, although accountability of non-government financial flows was yet to be developed. The piloting of a

blue economy valuation toolkit (BEVTK) as part of a broader UNECA Africa initiative showed progress on assessing blue economy economic performance but with challenges to establish useful social indicators for assessing social objectives of blue economy (Laing, 2020, 2021). The respondents reported the blue economy department was developing a blue economy monitoring and evaluation framework, which has yet to be made publicly available. Finally, Seychelles membership to the Extractive Industries Transparency Initiative (EITI) and the Fisheries Transparency Initiative (FiTI), both of which were multi-stakeholder-driven, were also cited as models of transparency and accountability the government was engaged in. Challenges raised by the respondents included accessibility of blue economy information constrained by internet availability and effective coordination of government information systems and data platforms. Attempts at developing whole of government management systems was seen as an issue of digital communication technology and services (e.g., e-government) as much as an issue of strategic leadership and coordination across knowledge-based institutions and government budgeting and reporting processes.

### Partnerships and collaborations

The respondents consistently referred to partnerships with international organizations to secure access to finance, expertise, policy advice, and research collaborations for blue economy implementation as positive developments. Examples included partnerships between the Ministry of Environment, Energy and Climate Change and the Blue Economy Research Institute in marine research and conservation. Some of the success factors identified by international partners were Seychelles unique geography and natural assets, the willingness to partner and innovate, access to Seychelles high-level decision-making, good governance, and an overall good place to work. Seychelles partnerships with the Nature Conservancy and the World Bank, which help secure debt-based finance for the development of the marine spatial plan; the designation of 30% of its EEZ as protected areas; and the transition to sustainable fisheries were seen as successful partnerships. Some respondents, however, indicated that the availability of finance to date was far from covering the costs of blue economy implementation and that the initial quantum of finance requested by the government was not granted and ultimately at the discretion of global investors. Concern was expressed by local respondents of the volatility of international attention, and the challenges to transforming global attention into lasting local capacity and benefits. Some respondents expressed the need for better donor harmonization and regional cooperation to pool resources and influence in the context of transboundary fisheries management, capacity building, and climate change policies.

## Discussion

The purpose of the research was to investigate the extent to which the blue economy had provided a pathway for the sustainable development of the ocean, and the extent to which blue economy governance arrangements had enabled effective integration of economic social and environmental dimensions of sustainable development, consistent with SDG16 and 17 and the principles of good governance.

Overall, the research, despite a relatively homogenous sample, shows a patchwork of perspectives, at time contradictory, particularly in the area of governance. The results show that blue economy indeed had provided some of the enabling conditions necessary toward sustainable development of the ocean, as evidenced by the *Seychelles blue economy roadmap*, the institutionalization of blue economy within government, and the perception that blue economy had led to important achievements and local benefits. However, it has also revealed numerous implementation challenges from continuity in leadership to those related to the effectiveness governance arrangements, policy coherence, and communication across government and non-government stakeholders. There was criticism of current arrangements or lack of them, but few solutions were advanced by participants.

Seychelles has been heralded as an international success story in the implementation of a blue economy, thanks to its international advocacy and innovative financing for marine conservation and sustainable fisheries. The international attention it has received is a credit to its leadership and willingness to partner and innovate in a challenging and contested global policy space. The investigation of how international attention has been translated into practical national outcomes presents a much more nuanced picture. The research shows a combination of achievements and challenges across all good governance dimensions. The results can be broadly summarized as follows:

#### Key achievements

- Strong political will, international leadership, and successful partnerships on innovative finance for high-profile blue economy projects such as Seychelles Marine Spatial Plan, the designation of 30% of the EEZ as MPAs, and the establishment of Seychelles Conservation and Climate Change Adaptation Trust as innovative governance.
- The adoption of a *blue economy roadmap* and *implementation plan* setting out a vision, principles, and social economic, environmental, and enabling objectives and priorities for action aligned with the SDGs as well as the establishment of blue economy structures including a blue economy department and a blue economy research institute and the SeyCCAT as the basic architecture for implementing an integrated blue economy agenda.

- Progress on implementation of sector-based blue economy policies and development of networking systems for blue economy financial accountability across government stakeholders.

#### Governance challenges

- Maintaining a high-level political momentum across political changes, leading to some marginalization of blue economy as a national integrated policy framework for the sustainable development of the ocean.
- A lack of continuity and clear mandates of blue economy structures and processes for the whole of government coordination and communication, combined with a limited public sector capacity and efficiency as major impediments for implementing a long-term coherent blue economy agenda across government and non-government sectors.
- Weak avenues for stakeholder participation in decision-making and access to authoritative consistent blue economy policy information as impediments to a national shared vision, commitment, and active engagement in blue economy implementation.
- Barriers to effective whole of government tracking mechanisms of blue economy implementation including financial flows across both government and non-government stakeholders.

Implementing a sustainable and equitable blue economy agenda is a long-term project, which requires learning from and building on successes and developing strategies to address challenges. In the next section, we discuss reconciling global expectations and local realities and propose strategies to convert challenges into opportunities through institutional reform; acknowledging the political nature of blue economy and building a national consensus; learning from local governance innovations and strengthening institutions; and investing in public sector capacity and expertise.

## Reconciling global expectations and local realities

Seychelles has achieved high international leadership and diplomatic influence in blue economy and ocean governance, responding to global demands for innovative blue economy models (Bueger and Wivel, 2018). The adoption of the *blue economy roadmap* and *5-year implementation plan*, and early establishment of dedicated institutions and successful projects such as the Marine Spatial Plan and MPA designation are significant milestones. International visibility has however come with high expectations, not necessarily tuned to

local aspirations nor commensurate with capabilities and jurisdictional responsibilities.

Reconciling global expectations of Seychelles as a successful model for blue economy with local realities were evidenced in the challenges experienced in establishing the functioning whole of government processes and meaningful stakeholder participation, which would allow for the effective implementation of the blue economy as an integrated framework for the sustainable and inclusive blue economy. Changes in political leadership over time led to a decline in support for blue economy as a national priority and in turn has weakened the whole of government processes and reinforced a view that the blue economy was serving an international agenda and was taking over existing ministerial responsibilities. The shift of the blue economy portfolio across several ministries further undermined its relevance of as a national policy framework and the legitimacy of structures and processes for coordination.

The challenges to establishing long-term well-designed mechanisms for the whole of government implementation of blue economy, which would allow for inter-ministerial collaborations and reduce potentially conflicting policy objectives, could be attributed to a lack of shared understanding and clarity about the blue economy concept and roles of ministries in the implementation of the *blue economy roadmap* (Barbe, 2020) as much as symptoms of broader systemic public sector issues. Some of the systemic barriers may be unique to Seychelles, some common to SIDS, and others found in a range of governance settings. Seychelles shares many of the characteristics of small islands, including a relatively large public sector (as % of population) because of diseconomies of scale in the provision of public goods and services. As a major employer, it is strongly personalized and vulnerable to conflicts of interest, political interference, clientism, and nepotism. In addition, a limited pool of expertise and recruitment through social, family, or political connections, rather than merit, hinder institutional reform to overcome entrenched public sector silo mindsets (Everest-Phillips and Henry, 2018). In addition, Seychelles historical legacy of a centralized one-party system for an extended period continues to influence both the structure and functioning of the public sector and perceptions of the government (Bhim, 2020; Schutter et al., 2021). Communication and decision-making still follow a largely hierarchical approach with limited delegation of decision-making and formalized structures and processes for inclusive decision-making and collaboration across ministries and recruitment processes (Barbe, 2020).

## Turning challenges into opportunities

As the most important instrument of the state, it is essential to improve how the public service functions to achieve lasting

development outcomes. Public sector institutions (as distinct from structures) include policies, markets, and legal frameworks, as well as informal norms and code of conducts that drive government decision-making, the behavior of public sector workers, resource allocation, and the exercise of power within a state bureaucracy (North, 1990). Public sector governance reform requires institutional reforms to improve performance and generate greater commitment, capacity, efficiency, and integrity to achieve development objectives (Joshi and Carter, 2015). To be effective, institutional reforms need to work within the local political context and be based on a common understanding and framing of the issues at stake. They should also acknowledge the pervasive nature of informal institutions, build on existing capacity, and value incremental adaptive reform, which can generate learnings and momentum for change (Joshi and Carter, 2015). With a new administration willing to tackle some of the systemic issues of the public sector, there is an opportunity for the government to re-energize its approach to the blue economy as a whole of government inclusive of national policy, provided governance gaps presented before are attended to.

The negative perceptions of the effectiveness of the institutional arrangements for coordination as lacking authority and competence and the marginalization of the *blue economy roadmap* in core ministerial responsibilities did not necessarily question the underlying public sector systemic issues at play. The decline in support for blue economy can be explained by the political and institutional culture in which policymaking and coherence are embedded, combined with a lack of available incentives and perceived benefits/costs for inter-ministerial collaborations, which are at the core of an integrated approach. Policy coherence challenges for sustainable development and by extension the blue economy may be magnified in small island governance settings; however, barriers to effective integration across government stakeholders can be found in a range of government settings. A case study of SDG implementation in the Netherlands shows that policy coherence across SDGs implemented as a technical coordination process ignores the basic fact that the trade-offs between SDGs are political and require negotiation, a fact conveniently left to states to implement (Yunita et al., 2022). Furthermore, an analysis of government officials' perceptions of policy coherence in the implementation of the Post-2015 Development Agenda in Mexico shows that despite attention to policy coherence in global policy research, national implementation beyond high-level policy commitments is difficult to achieve in practice. The research found preference for coherence as an overall benefit to society; however, a combination of political culture, organizational structures, and budget processes, which are essentially hierarchical are not conducive to inter-ministerial collaborations. The latter requires additional time, resources, and commitment, all of them borne by the public sector, with

costs that are not acknowledged and quantified, and hence not accounted for (Moure et al., 2021).

Guidelines for operationalizing policy coherence for development propose a participative methodology of policymaking, engaging a plurality of government and non-government actors based on information exchange and transparency, which can identify mechanisms that reinforce or undermine collaborations for integrated sustainable development outcomes and propose solutions, applicable in the context of blue economy (Koff et al., 2020). This is consistent with approaches to institutional change and governance in the context of aid for development, which argues that effective institutional reform starts with country ownership and context-specific existing governance structures and processes, rather than international best practice as conditionality, despite acknowledging the important role of external actors to help overcome domestic political support for change (Booth, 2011).

As an integrated framework for the sustainable development of the ocean, blue economy needs to encompass a broad range of values, activities, users, and needs, and hence the importance of avenues for dialogue and engagement of both government and non-government stakeholders. Although interviews did not include non-government participants, a key governance challenge identified was weak arrangements for meaningful stakeholder engagement, despite social equity and inclusiveness being one of the four pillars of the *blue economy roadmap*.

Research conducted in Seychelles on perceptions of the blue economy concept among policymakers, practitioners, and resource users engaged in the Marine Spatial Planning process (Schutter and Hicks, 2019) shows that the international discourse on blue economy advocating a triple bottom line conflicted with local realities, whereby this dominant vision was driven by the government's need to maintain international visibility and influence. This overshadowed local views and tensions between stakeholder perspectives, leading to "depoliticization" of a shared vision. There was however a local desire to shape both process and outcome, despite potential trade-offs and incompatibilities between different interpretations of the blue economy among stakeholders. As noted by the authors, this may not be specific to Seychelles and indeed be a characteristic of the blue economy policy space more broadly. Other research on stakeholder values in Seychelles shows a strong link among blue economy, sustainability, quality of life, access to education and skills, and livelihood opportunities (Bramley et al., 2022). Accounting for those values requires a greater focus on inclusive governance (Rudolph et al., 2020) based on a long-term shared vision of blue economy and prosperity, valuing local empowerment and solutions including facilitating local private sector engagement and entrepreneurship (Benzaken and Hoareau, 2021).

Bridging the gap between global expectations and local realities requires support for locally driven institutional

reforms, which take account of issues of scale, culture, and capacity. Options to consider range from re-energizing a national consensus for blue economy, learning from governance innovation, to developing strategies for strengthening the whole of government mechanisms for coordination and stakeholder engagement, investing in public sector capabilities and rethinking approaches to international partnerships.

### Acknowledging the political nature of blue economy: Building consensus

As current research suggests (Booth, 2011; Joshi and Carter, 2015; Koff et al., 2020), acknowledging and understanding the political context and local policy and institutional landscape in which a blue economy is developed and implemented could be a useful first step. Such an approach would require high-level whole of government leadership and champions across the political spectrum within and outside the government. It could take the form of a series of multi-stakeholder conversations, where different perspectives and needs can be shared, a common understanding and vision of blue economy validated, models for coordination and responsibilities discussed, and processes that undermine or facilitate collaborations across government and non-government and local incentives for collaborations identified. The *blue economy roadmap* was designed to provide common goals and strategic opportunities for sector-based implementation, not to replace them, highlighting the importance of an implementation plan that sets priority actions, articulates roles and responsibilities across government and non-government sectors, and includes an investment plan and tracking mechanism, some of which are underway. A review of the implementation of the *blue economy roadmap* to date, which highlights some of the achievements and challenges, may provide a useful background for such conversations (Benzaken and Hoareau, 2021).

### Learning from local governance innovations and strengthening existing institutions

Seychelles has a history of innovation that can be brought to bear. Earlier public sector reforms post the 2008 Global financing Crisis and the implementation of results-based management supported by the World Bank and the International Monetary Fund have significantly improved transparency and accountability, brought prosperity, and allowed Seychelles to become a high-income country, despite a relatively low government effectiveness score compared with similar economies and a persistent inequality (Republic of Seychelles, 2019b). Governance innovation enabled by the Seychelle's Blue Economy agenda included the Seychelles Conservation and Climate Adaptation Trust. The trust was established under legislation and functions as a grant manager under an independent board comprising government, private

sector, and civil society. The SeyCCAT mandate is to manage the proceeds of the Seychelles Debt Swap for conservation and climate adaptation and part of the Seychelles Blue Bond. This includes meeting loan repayment obligations to investors, capitalization of the trust, and establishing transparent and competitive grants for local blue economy projects. Consequently, it has become a *de facto* place to go for blue economy information and participation in blue economy.

Lessons learned from the SeyCCAT as a delivery model is its independence from the government and hence political interference in resource allocation and a demonstration of the value of transparency and accountability in generating trust in institutions. Such a governance model, driven by the need for the debt swap financial accountability, has yet to be successfully replicated, despite similar model for blue economy governance proposed under the *blue economy roadmap* (Republic of Seychelles, 2019a) and a proposed for a Seychelles Ocean Authority. The role of The Nature Conservation (TNC), the NGO which purchased the Seychelles debt and sits on the SeyCCAT Board, has attracted some criticism as potentially infringing on sovereign decision-making (Schutter and Hicks, 2019; Standing, 2022). However, as suggested by one respondent, pragmatism and trade-off between attracting financial resources and some loss of sovereignty for the period of the loan could be a calculated risk in the context of the high cost of finance.

There might be other examples of successful governance innovations both in the government and non-government sectors in different policy spaces to learn from worth exploring either in Seychelles or in other SIDS, however these were not investigated in this research. The analysis of policy coherence in Timor Leste for example shows the value of identifying and strengthening existing influential policy hubs and coordination mechanisms, as opposed to establishing new ones as an effective way of addressing policy and governance gaps (Voyer et al., 2020). Consideration of non-government governance innovations could add value and provide models, which the government could consider as part of a broader blue economy "governance ecosystem." Such approaches would require greater flexibility within the government governance system and, as suggested by Joshi and Carter (2015), could generate learnings and momentum for change.

### Investing in public sector capacity and expertise

Building public sector capacity is a long-term investment. Lessons learned from a range of case studies of public sector reforms in the Pacific and the Indian Ocean SIDS (Ismail, 2019) found that there is limited evidence of the effectiveness of public sector reforms or capacity building initiatives in SIDS, in particular reforms aimed at downsizing the public sector (Hassal, 2018). Most SIDS, including Seychelles, invest considerable financial and human resources relative to GDP

in order to deliver public services to their small populations. Successful reforms such as the Seychelles e-government reform can be attributed to a combination of political will, executive leadership and partnership between the government, the development of partner and the service provider, high level of literacy, and political stability. This reinforces the role of international partnerships in supporting locally driven governance solutions (Commonwealth Secretariat 2016).

The challenges associated with building and retaining local expertise and skills, as raised in interviews, included making better use of qualified young professionals, not necessarily in a position of influence in the decision-making process. A combination of competitive recruiting processes and the availability of career paths could lead to reduced dependence on international expertise, which is locally negatively perceived (Schutter and Hicks, 2019; Stefanoudis et al., 2021). Public sector professional skills development based on an assessment of local needs would also be helpful.

## Conclusion

In this study, we investigated the role of blue economy as an agent of change and good governance as enabling blue economy as an integrating policy framework, using the Seychelles experience. Our analysis shows a combination of successes and governance challenges for implementing blue economy as an integrated policy framework, some unique to Seychelles, others common in islands, and others also found in other governance settings. Seychelles international leadership, while acknowledged as an essential driver and contributor to blue economy development, has exerted considerable pressure and expectations on the government capabilities not commensurate with its jurisdictional responsibilities. Reconciling global expectations with local realities highlighted several governance challenges. These included maintaining political momentum and a strategic focus; effective communication and stakeholder engagement; policy coherence and institutional coordination; and addressing issues of legitimacy, public sector culture, and technical and human capacity. Options for institutional reform could consider re-energizing blue economy as a national policy framework through consensus building among government and non-government stakeholders, learning from governance innovations, identifying and strengthening local governance solutions for effective institutional coordination and integration, and strengthening local public sector capacity and expertise to build momentum for change across government sectors and beyond.

Lessons learned from the Seychelles experience provide insights, which can be shared with other islands wishing to implement a blue economy agenda, mindful that the Seychelles experience, while common with many SIDS, nonetheless is unique to its political, economic, social, cultural, environmental,

and governance settings. It also provides some ground truth of international development policy and academic blue economy narratives and highlight the importance of practice and the needs to balance global objectives and governance standards with local needs for improving local governance outcomes. International partners should focus on supporting institutional reforms, which reflect priorities and capacity needs and customize good governance models to local governance issues and solutions.

Good governance for blue economy development could be summarized as follows:

- Ongoing high-level political leadership and commitment to long-term implementation.
- A national conversation that builds ownership and collective action.
- A blue economy policy that articulates a national vision and priorities, reflects national socioeconomic and environmental circumstances, provides a long-term strategic policy setting, and is embedded in the national development policy landscape.
- A legal framework and institutional arrangements that builds on existing structures and processes, has legitimacy and authority to facilitate a whole of government implementation, creates incentives for collaboration, is inclusive, and learns from tested innovative governance models domestically or elsewhere.
- Institutional reform that enhances government performance, build capacity, and accountability.
- Adaptive mechanisms that encourage creativity, innovation and flexibility, and the use of new knowledge and opportunities, including those which arise from international engagement and partnerships.

## Limitations of the research

The mixed methods and case study approach used in this research were unique in that it combined longitudinal data sources and in-depth insights through the advisor, not usually available to external researchers, and empirical analytical methods. The choice of the most significant change and good governance model was well-fitted to explore the Seychelles blue economy experience. Primarily focused on government, the results unsurprisingly showed consistency on the importance of blue economy to Seychelles long-term prosperity, and much was made of successes to date, with most of the conflicting perspectives related to implementation and in particular governance. As the research design was purposely focused on a government perspective, the impacts of blue economy as transformative policy beyond the realms of government operations were not investigated. Specifically, the perspectives and contributions of actors such as civil society and the private

sector were not thoroughly investigated, despite their key role in blue economy implementation. Furthermore, the contribution of other critical enabling factors, in particular finance and the role of the private sector, has yet to be analyzed.

To conclude, as one respondent said, “*blue economy is like building a ship while it is sailing*,” and hence, it is a work in progress.

## Data availability statement

The original contributions presented in the study are included in the article/[Supplementary material](#), further inquiries can be directed to the corresponding author/s.

## Ethics statement

The studies involving human participants were reviewed and approved by Ethics Committee, University of Wollongong. The patients/participants provided their written informed consent to participate in this study. Written informed consent was obtained from the individual(s) for the publication of any potentially identifiable images or data included in this article.

## Author contributions

DB as the lead author, conceptualized, designed, and conducted the research, wrote and reviewed the manuscript, and prepared the manuscript for submission. MV reviewed the manuscript and provided constructive comments on the first and second drafts. AP reviewed the manuscript and provided constructive comments on the first draft. QH reviewed the final draft of the manuscript. All authors contributed to the article and approved the submitted version.

## References

- Agrippine, M., Anganuzzi, A., Burrige, G., Marie, M. T., Michaud, P., and Robinson, J. (2014). *The Blue Economy. Seychelles' Vision for a Blue Horizon*. Victoria, Seychelles: Ministry of Foreign Affairs.
- Barbe, C. C. (2020). *An examination of key stakeholders' challenges for the implementation of the Blue Economy strategic policy (2018-2030) in Seychelles* (Master's degree). World Maritime University, Malmo, Sweden.
- Barbesgaard, M. (2018). Blue growth: savior or ocean grabbing? *J. Peasant Stud.* 45, 130–149. doi: 10.1080/03066150.2017.1377186
- Bennett, N. J. (2018). Navigating a just and inclusive path towards sustainable oceans. *Mar. Policy* 97, 139–146. doi: 10.1016/j.marpol.2018.06.001
- Bennett, N. J., Blythe, J., Cisneros-Montemayor, A. M., Singh, G. G., and Sumaila, R. U. (2019). Just transformations to sustainability. *Sustainability* 11, 3881. doi: 10.3390/su11143881
- Bennett, N. J., Govan, H., and Satterfield, T. (2015). Ocean grabbing. *Mar. Policy* 57, 61–68. doi: 10.1016/j.marpol.2015.03.026
- Bennett, N. J., and Satterfield, T. (2018). Environmental governance: A practical framework to guide design, evaluation and analysis. *Conserv. Lett.* 11:e12600. doi: 10.1111/conl.12600
- Benzaken, D., and Hoareau, K. (2021). “From concept to practice, the blue economy in Seychelles,” in *The Blue Economy in Sub Sahara Africa*, ed D. Sparks (London; New York, NY: Taylor and Francis Group), 141–157. doi: 10.4324/9780367822729-8
- Bhim, M. (2020). *Authoritarian regimes in Small Island States: The anomalous cases of electoral autocracies in Fiji, the Maldives and Seychelles* (Doctor of Philosophy). University of New England, Armidale, NSW, Australia.
- Blanc, D. L. (2015). *Towards integration at last? The sustainable Development Goals as a network of targets*. United Nations. Available online at: [https://www.un.org/esa/desa/papers/2015/wp141\\_2015.pdf](https://www.un.org/esa/desa/papers/2015/wp141_2015.pdf) (accessed October, 2022).
- Booth, D. (2011). Aid, institutions and governance: what have we learned? *Dev. Policy Rev.* 29, s5–s26. doi: 10.1111/j.1467-7679.2011.00518.x

## Funding

Publication costs were covered by the Australian National Center for Ocean Resources and Security, University of Wollongong.

## Acknowledgments

DB wishes to acknowledge the contributions of interview participants, which made this research possible in difficult times, as well as the contributions of specific colleagues, institutions, or agencies that aided the efforts of the authors.

## Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

## Publisher's note

All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher.

## Supplementary material

The Supplementary Material for this article can be found online at: <https://www.frontiersin.org/articles/10.3389/fpos.2022.1040318/full#supplementary-material>

- Bramley, B., Pouponneau, A., and Hettiarachchi, U. (2022). "Nurturing resilience and quality of life- a blue economy approach," in *Quality of Life. An Interdisciplinary Perspective*, eds S. Tripathi, R. Rai, and I. V. Rompay-Bartels (Boca Raton, FL: Taylor and Francis Group), 163–180. doi: 10.1201/9781003009139-10
- Bueger, C., and Wivel, A. (2018). How do small island states maximize influence? Creole diplomacy and the smart state foreign policy of the Seychelles. *J. Indian Ocean Reg.* 14, 170–188. doi: 10.1080/19480881.2018.1471122
- Campbell, L. M., Gray, N. J., Fairbanks, L., Silver, J. J., Gruby, R. L., Dubik, B. A., et al. (2016). "Global oceans governance: new and emerging issues," in *Annual Review of Environment and Resources* (San Mateo, CA: Annual Reviews Inc.). doi: 10.1146/annurev-enviro-102014-021121
- Cisneros-Montemayor, A. M., Moreno-Baez, M., Reygondeau, G., Cheung, W. W. L., Crosman, K. M., Gonzalez-Espinosa, P. C., et al. (2021). Enabling conditions for an equitable and sustainable blue economy. *Nature* 591, 396–401. doi: 10.1038/s41586-021-03327-3
- Commonwealth (2015). *Outcome Report of the meeting of Senior officials and Commonwealth advisors*. London: The Commonwealth Secretariat.
- Dart, J., and Davies, R. (2003). A dialogical, story-based evaluation tool: the most significant change technique. *Am. J. Eval.* 24, 137–155. doi: 10.1177/109821400302400202
- Ehlers, P. (2016). Blue growth and ocean governance—how to balance the use and the protection of the seas. *WMU J. Maritime Affairs* 15, 187–203. doi: 10.1007/s13437-016-0104-x
- Everest-Phillips, M., and Henry, S. (2018). *Public Administration in Small and Very Small States: How does smallness affect governance?* Available online at: <https://astanahubjournal.org/index.php/ijcrsp/article/view/110> (accessed October, 2022).
- Hassal, G. (2018). Special issue on public sector enhancement in pacific island states. *Asia Pac. J. Public Administr.* 40, 207–211. doi: 10.1080/23276665.2018.1553276
- Ismail, Z. (2019). *Public Sector Reform and Capacity Building in SIDS*. Birmingham, UK: University of Birmingham. Available online at: [https://assets.publishing.service.gov.uk/media/5cd996c8e5274a38bf503d31/583\\_Small\\_Island\\_Developing\\_States\\_Revised.pdf](https://assets.publishing.service.gov.uk/media/5cd996c8e5274a38bf503d31/583_Small_Island_Developing_States_Revised.pdf) (accessed October, 2022).
- Joshi, A., and Carter, B. (2015). *Public Sector Institutional Reform: Topic Guide*. Birmingham, UK GSDRC.
- Jouffray, J.-B., Blasiak, R., Norström, A. V., Österblom, H., and Nyström, M. (2020). The blue acceleration: the trajectory of human expansion into the ocean. *One Earth* 2, 43–54. doi: 10.1016/j.oneear.2019.12.016
- Kaufmann, A., Kraay, A., and Mastruzzi, M. (2010). *The Worldwide Governance Indicators: Where Are We, Where Should We Be Going. Methodology and Analytical issues*. Washington, DC: The World Bank. Available online at: <https://openknowledge.worldbank.org/handle/10986/3913> (accessed October, 2022).
- Keen, M. R., Schwarz, A.-M., and Wini-Simeon, L. (2018). Towards defining the Blue Economy: practical lessons from pacific ocean governance. *Mar. Policy* 88, 333–341. doi: 10.1016/j.marpol.2017.03.002
- Koff, H., Challenger, A., and Portillo, I. (2020). Guidelines for operationalizing policy Coherence for Development (PCD) as a methodology for the design and implementation of sustainable development strategies. *Sustainability* 12, 4055. doi: 10.3390/su12104055
- Laing, S. (2020). *Testing a Blue Economy Valuation Kit. final expended report*. Available online at: <https://www.uneca.org/sites/default/files/SROs/Seychelles%20-%20BE%20Toolkit%20Testing%20Report%202020.pdf> (accessed October, 2022).
- Laing, S. (2021). *Socio-Economic Assessment of the Blue Potential in Seychelles*. United Nations. Available online at: <https://www.uneca.org/events/socio-economic-assessment-of-the-blue-potential-in-seychelles> (accessed October, 2022).
- Moure, M., Sandholz, S., Wannewitz, M., and Garschagen, M. (2021). No easy fixes: government workers' perception of policy (in)coherence in the implementation of the Post-2015 agenda in Mexico. *Clim. Risk Manag.* 31, 100270. doi: 10.1016/j.crm.2020.100270
- Nevill, J. (2014). *Technical assistance for the elaboration of the theme blue economy for national and international positioning*. Unpublished Report to the government, Victoria, Seychelles.
- North, D. (1990). *Institutions, Institutional Change and Economic Performance* Cambridge: Cambridge University Press. doi: 10.1017/CBO9780511808678
- OECD (2016). *The Ocean Economy in 2030*. Paris: OECD. doi: 10.1787/9789264251724-en
- OECD (2019). *Policy Coherence for Sustainable Development 2019. Empowering People and Ensuring Inclusiveness and Equality*. Paris: OECD. Available online at: <https://www.oecd.org/gov/policy-coherence-for-sustainable-development-2019-a90f851f-en.htm> (accessed October, 2022).
- OECD (2020a). *Reframing Financing and Investment for a sustainable Ocean Economy*. Paris: OECD.
- OECD (2020b). *Transparency, communication and trust: The role of public communication in responding to the wave of disinformation about the new coronavirus*. Paris: OECD. Available online at: [https://read.oecd-ilibrary.org/view/?ref=135\\_135220-cvba4q3ruandtitle=Transparency-communication-and-trust-The-role-of-public-communication-in-responding-to-the-wave-of-disinformation-about-the-new-coronavirus](https://read.oecd-ilibrary.org/view/?ref=135_135220-cvba4q3ruandtitle=Transparency-communication-and-trust-The-role-of-public-communication-in-responding-to-the-wave-of-disinformation-about-the-new-coronavirus) (accessed August 2022).
- OECD (2021). *COVID-19 Pandemic: Towards a Blue Recovery in Small Island Developing States*. OECD Publishing.
- Okafor-Yarwood, I., Kadagi, N. I., Miranda, N. A. F., Uku, J., Elegbede, I. O., and Adewumi, I. J. (2020). The blue economy—cultural livelihood—ecosystem conservation triangle: the african experience. *Front. Mar. Sci.* 7, 586. doi: 10.3389/fmars.2020.00586
- Partelow, S., Schlüter, A., Armitage, D., Bavinck, M., Carlisle, K., Gruby, R. L., et al. (2020). Environmental governance theories: a review and application to coastal systems. *Ecol. Soc.* 25, 1–21. doi: 10.5751/ES-12067-250419
- Patil, P. G., Virdin, J., Diez, S. M., Roberts, J., and Singh, A. (2016a). *Toward a Blue Economy: A Promise for Sustainable Growth in the Caribbean*. Washington, DC: World Bank. doi: 10.1596/25061
- Patil, P. G., Virdin, J., Diez, S. M., Roberts, J., and Singh, A. (2016b). *Toward a Blue Economy: A Promise for Sustainable Growth in the Caribbean*. Washington, DC: World Bank. Available online at: <https://openknowledge.worldbank.org/handle/10986/25061> (accessed October, 2022).
- Patton, M. Q., Patton, M. Q., and Patton, M. Q. (2002). *Qualitative Research and Evaluation Methods*. Thousand Oaks, Calif: Sage Publications.
- Republic of Seychelles (2012). *Seychelles Sustainable Development Strategy 2012-2020*. Available online at: <http://www.meecc.gov.sc/wp-content/uploads/2017/04/Seychelles-Sustainable-Development-Strategy-Volume-1.pdf> (accessed October, 2022).
- Republic of Seychelles (2013). *National Food and Security Policy*. Available online at: <http://www.mofa.gov.sc/downloads/seychelles-national-food-nutrition-security-policy.pdf> (accessed October, 2022).
- Republic of Seychelles (2014). *Report of the first national Stakeholders Consultation Forum on the Blue Economy*.
- Republic of Seychelles (2015). *National Development Strategy*.
- Republic of Seychelles (2016). *Report of the Blue Economy Ministerial Retreat*. Unpublished report to the Ministry of Finance Trade and the Blue Economy. Mahe Seychelles.
- Republic of Seychelles (2018). *Seychelles Blue Economy: Strategic Policy Framework and Roadmap: Charting the future (2018-2030)*. Victoria, Seychelles. Available online at: [http://www.seychellesconsulate.org.hk/download/Blue\\_Economy\\_Road\\_Map.pdf](http://www.seychellesconsulate.org.hk/download/Blue_Economy_Road_Map.pdf) (accessed October, 2020).
- Republic of Seychelles (2019a). *Seychelles Blue Economy: Strategic Policy Framework and Roadmap. Charting the future (2018-2030)*. Victoria, Seychelles: Republic of Seychelles. Available online at: [http://www.seychellesconsulate.org.hk/download/Blue\\_Economy\\_Road\\_Map.pdf](http://www.seychellesconsulate.org.hk/download/Blue_Economy_Road_Map.pdf) (accessed October, 2022).
- Republic of Seychelles (2019b). *Seychelles National Development Strategy 2019-2023*. Victoria Seychelles. Available online at: <http://www.finance.gov.sc/national-development-strategy-2019-2023> (accessed October, 2022).
- Republic of Seychelles and UN Economic Council for Africa (2019). *Seychelles Blue Economy Action, draft submitted to the Office of the Vice President*.
- Roberts, J. M., and Ali, A. (2016). *The Blue Economy and Small States*. London: Commonwealth Secretariat. doi: 10.14217/9781848599505-en
- Rudolph, T. B., Ruckelshaus, M., Swilling, M., Allison, E. H., and Österblom, H., Gelcich, S., et al. (2020). A transition to sustainable ocean governance. *Nat. Commun.* 11, 3600–3600. doi: 10.1038/s41467-020-17410-2
- Schutter, M., and Hicks, C. (2019). Networking the blue economy in seychelles: pioneers, resistance, and the power of influence. *J. Polit. Ecol.* 26, 425–447. doi: 10.2458/v26i1.23102
- Schutter, M., Hicks, C., Phelps, J., and Waterton, C. (2021). The Blue Economy as a boundary object for hegemony across scales. *Mar. Policy* 132, 104673. doi: 10.1016/j.marpol.2021.104673

- Secretariat, U. N. F. C. C. C. (2021). *Nationally determined contributions under the Paris Agreement-Synthesis Report. UN Framework Convention on Climate Change*. Retrieved from: [https://policycommons.net/artifacts/1815006/cma2021\\_08\\_adv/2551290/](https://policycommons.net/artifacts/1815006/cma2021_08_adv/2551290/) (accessed November 19, 2022).
- Silver, J. J., Gray, N. J., Campbell, L. M., Fairbanks, L. W., and Gruby, R. L. (2015). Blue economy and competing discourses in international oceans governance. *J. Environ. Dev.* 24, 135–160. doi: 10.1177/1070496515580797
- Singh, G. G., Cisneros-Montemayor, A. M., Swartz, W., Cheung, W., Guy, J. A., Kenny, T.-A., et al. (2018). A rapid assessment of co-benefits and trade-offs among Sustainable Development Goals. *Mar. policy* 93, 223–231. doi: 10.1016/j.marpol.2017.05.030
- Stafford-Smith, M., Griggs, D., Gaffney, O., Ullah, F., Reyers, B., Kanie, N., et al. (2016). Integration: the key to implementing the Sustainable Development Goals. *Sustain. Sci.* 12, 911–919. doi: 10.1007/s11625-016-0383-3
- Standing, A. (2022). *Debt for Nature Swap: The Belize Blue Bond*. Coalition for Fair Fisheries Arrangements. Available online at: [https://static1.squarespace.com/static/5d402069d36563000151fa5b/t/622b22f17bfbe71215d00ef2/1646994162263/220315\\$+\\$Financialisation\\$+\\$series\\$+\\$2.pdf](https://static1.squarespace.com/static/5d402069d36563000151fa5b/t/622b22f17bfbe71215d00ef2/1646994162263/220315$+$Financialisation$+$series$+$2.pdf) (accessed October, 2022).
- Stefanoudis, P. V., Licuanan, W. Y., Morrison, T. H., Talma, S., Veitayaki, J., and Woodall, L. C. (2021). Turning the tide of parachute science. *Curr. Biol.* 31, R184–R185.
- Stojanovic, T., and Gee, K. (2020). Governance as a framework to theorise and evaluate marine planning. *Mar. Policy* 120, 104115. doi: 10.1016/j.marpol.2020.104115
- Stuchtey, M. R., Vincent, A., Merkl, A., Bucher, M., Haugan, P. M., Lubchenko, J., et al. (2020). *Ocean Solutions that Benefit People, Nature, and the Economy*. Washington, DC: High Level Panel for a Sustainable Ocean Economy. Available online at: <https://oceanpanel.org/wp-content/uploads/2022/06/full-report-ocean-solutions-eng.pdf> (accessed October, 2022).
- Techera, E. J. (2018). Supporting blue economy agenda: fisheries, food security and climate change in the Indian Ocean. *J. Indian Ocean Reg.* 14, 7–27. doi: 10.1080/19480881.2017.1420579
- UNDP and EU (2004). *Governance Indicators: A User Guide*. Washington, DC: United Nations. Available online at: [https://www.un.org/ruleoflaw/files/Governance%20Indicators\\_A%20Users%20Guide.pdf](https://www.un.org/ruleoflaw/files/Governance%20Indicators_A%20Users%20Guide.pdf) (accessed October, 2022).
- United Nations (2014). *Blue Economy Summit: Abu Dhabi Declaration*. Available online at: <https://sustainabledevelopment.un.org/content/documents/2983BEdeclaration.pdf> (accessed October, 2022).
- United Nations Economic and Social Council (2018). *Principles of Effective Governance for Sustainable Development*. New York, NY: United Nations. Available: [https://publicadministration.un.org/portals/1/images/cepa/principles\\_of\\_effective\\_governance\\_english.pdf](https://publicadministration.un.org/portals/1/images/cepa/principles_of_effective_governance_english.pdf) (accessed October, 2022).
- Voyer, D. M., Benzaken, D., and Rambourg, C. (2022). Institutionalising the Blue Economy: an examination of variations and consistencies amongst Commonwealth countries. *Philos. Transact. B* 377, 20210125. doi: 10.1098/rstb.2021.0125
- Voyer, M., Farmery, A. K., Kajlich, L., Vachette, A., and Quirk, G. (2020). Assessing policy coherence and coordination in the sustainable development of a Blue Economy. A case study from Timor Leste. *Ocean Coastal Manag.* 192, 105187. doi: 10.1016/j.ocecoaman.2020.105187
- Voyer, M., Quirk, G., McIlgorm, A., and Azmi, K. (2018). Shades of blue: what do competing interpretations of the Blue Economy mean for oceans governance? *J. Environ. Policy Plann.* 20, 595–616. doi: 10.1080/1523908X.2018.1473153
- Winther, J.-G., Dai, M., Rist, T., Hoel, A. H., Li, Y., Trice, A., et al. (2020). Integrated ocean management for a sustainable ocean economy. *Nat. Ecol. Evol.* 4, 1451–1458. doi: 10.1038/s41559-020-1259-6
- World Bank (2017). *The Potential of Blue Economy: Increasing Long Term Benefits of the Sustainable Use of Marine Resources for Small Islands Developing States and Coastal Least Developed Countries*. Washington, DC: World Bank Group. doi: 10.1596/26843
- World Bank (2018). *Seychelles Blue Bond for Sustainable Marine and Fisheries Projects*. Washington, DC: World Bank. Available online at: <https://www.worldbank.org/en/news/press-release/2018/10/29/seychelles-launches-worlds-first-sovereign-blue-bond> (accessed October, 2022).
- World Bank and United Nations Department of Economic and Social Affairs (2017). *The Potential of the Blue Economy: Increasing Long-term Benefits of the Sustainable Use of Marine Resources for Small Island Developing States and Coastal Least Developed Countries*. Washington, DC: World Bank Group. Available online at: <https://openknowledge.worldbank.org/handle/10986/26843> (accessed August 2022).
- Yunita, A., Biermann, F., Kim, R. E., and Vijge, M. J. (2022). The (anti-) politics of policy coherence for sustainable development in the Netherlands: logic, method, effects. *Geoforum* 128, 92–102. doi: 10.1016/j.geoforum.2021.12.002