

Introduction

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We once again bring our readers the *Annual Report on Global Islands*. In 2022, it is apparent that the world is slowly recovering from the COVID-19 pandemic. Many, if not all island states and territories were affected and are now building back their societies and economies, post-COVID-19. Although this is occurring in many sectors and for many indicators, such as unemployment, human development index (HDI), and gross domestic product (GDP), it is still prudent to analyze the immediate impacts of recovery efforts, especially in island states and territories. Moreover, the proposed hindrances of many island states and territories in achieving the sustainable development goals (SDGs) by 2030 should also be of concern. The 2020 and 2021 annual reports have thoroughly interrogated these themes, along with additional themes such as trade and tourism, which are in many ways coupled with the pressures of the pandemic. This year's report will continue this trajectory, mainly since the world is still on the fringes of post-pandemic recovery. In this regard, the report maintains the introductory chapter on the state of island economies and development for 2022.

Notwithstanding the need to continue to understand the impacts of COVID-19 and the hindrances that have been placed in meeting the SDGs, the theme chosen for this year's report focuses on two critical sectors of island development: the blue economy and tropical agriculture. The theme for the 2022 report is the **Island blue economy and tropical agriculture: international cooperation, blue and agriculture-based economies for sustainable development**. Although the facets of the theme may seem fragmented, they are actually integrated as agriculture and the blue economy are connected through the fisheries sector. Moreover, in islands, the ridge-to-reef approach to analyzing island development is used, as the inland of islands where significant agricultural activities occur is connected to the sea, through networks of veins called rivers. In small islands, such as in the Caribbean, fertilizers and other waste emissions and leachates from agricultural practices are carried to the coast and near-shore seas via these conduits.

However, many islands, such as Seychelles have placed sustained emphasis on the development of their blue economy (see e.g., Hoareau, this book). Additionally, Telesford (2021) interrogated the blue economy plan for Grenada and noted that despite the potential of the blue economy to provide additional economic development to

islands, there is a stark need to ensure that such projects are environmentally and socially sustainable. Moreover, many projects centered on the blue economy in small islands support coastal tourism resort development (Telesford, 2021). In this regard, it was proposed that the sustainable development goals provide a planning framework that will allow islands to create integrated policies that are goal-based, and that will meet economic, social, and environmental sustainability.

Agriculture may be considered the breadbasket of many island economies. In fact, agriculture plays a critical role in the sustainable development of all states and more so in small island states and jurisdictions, mainly as it relates to food security and healthy lives. This is supported by the SDGs, of which SDG 2 addresses, hunger, food security, improved nutrition, and sustainable agriculture. However, agriculture also supports many other SDGs such as SDG 1: no poverty and SDG 3: healthy lifestyles. Additionally, it is prudent for policymakers to give serious consideration to agriculture, in spite of the observation of massive urbanization in many island states and territories. In this regard, Schmidt and Dorosh, (2022, p. 104) suggest, that “policy-makers should consider broader, longer-term investments in agriculture to improve food security and resilience to shocks.” In this regard, they further proposed that a critical area for such investment is “rural agriculture extension service” (Schmidt and Dorosh, 2022, p. 104).

In the context of this year’s theme for the report, food prices are of particular interest. In this regard, the influence of food prices on these small island states ranged from approximately 16% in St. Kitts and Nevis to about 27% in St. Lucia (ECCB, 2023). Moreover, in the cases of Indonesia (56.5%) and Papua New Guinea (70.8%), the impact of food prices has been shown to have a profound influence on their Consumer Price Index (CPI) and local commodity prices, especially in the context of the COVID-19 pandemic (see Nairobi, 2021; Schmidt and Dorosh, 2022).

As innovation has also been applied to small island states (see for example Leal-Ayala, 2021; UNDP, 2022), it must be noted that one of the themes for the year’s report is on the blue economy, and its possible links to food provisioning and security. In this regard, Tsakok (2021, p. 1) proposes that: “Mauritius must once again transform itself from an economy that relies on labor-intensive sectors to a new foundation of knowledge-intensive sectors of the fourth industrial revolution (4IR).” A proposal that may be relevant to many island economies and more so in the context of the themes for this report: the blue economy and tropical agriculture.

But the developments in agriculture and the blue economy and their interconnections for island development could benefit from international cooperation, which is critical as a support mechanism for such developments. In this year’s report international cooperation is a cross-cutting theme. Many of the chapters, in both sub-themes, interrogate the pros and cons of such cooperation for the blue economy and tropical agricultural development.

The report is divided into three sections: the state of island economies, the blue economy, and island agriculture.

In the first chapter, Telesford and Zhou open the report with an update of the nineteen tables that were reported in the previous report. Only six tables continue to be on a few selected island jurisdictions. However, not many conclusive statements could be made on the impacts of COVID-19 on the small island states and jurisdictions, and this is due mainly to a continued scarcity of research specific to these small islands. However, as it relates to GDP growth and the decline in unemployment rates in mainly tourist-centric island states, there appeared to be some impact due to the pandemic. In this regard, many of these states demonstrated a decline in unemployment. Therefore, we look forward to the *Annual Report on Global Islands 2023*, which may feature more papers and research and thus assist with making much better correlations and conclusions. But as we move further into the future, and as we note this year's theme, the report's themes are beginning to morph. So, although we go into the future trying to apply the lessons learned from the COVID-19 pandemic, we surge forward with optimism that islands will become more resilient to external shocks such as the one experienced by the pandemic.

SECTION 1: BLUE ECONOMY (MARINE ECONOMY)

In Chapter Two, Kelly Hoareau, provides a provocative analysis and discussion on the state of knowledge with the blue economy, in her chapter titled **The blue economy: Who knows what?** Hoareau takes us through a broad approach to the blue economy and its link to the pillars of sustainable development. Hoareau also notes its promotion by small island development states (SIDS) at the UN Rio+20 Conference. She further highlights the immersion of the green economy in a blue world that focuses on the role of the oceans and seas. Hoareau notes that the 'blue economy' has become a key agenda for contemporary coastal and island nations, with a focus on developing (or industrializing) coastal and ocean space for economic prosperity. However, she cautions a key to such an agenda is how the ocean economy can be made more sustainable. Historically she notes that the economic and cultural identity of many nations has long been connected to the ocean, particularly for Small Island Developing States (SIDS). However, with the advent of the blue economy idea, the difference is that there is a need for a more coordinated and sustainable approach, one that combines development with environmental stewardship and conservation. Hoareau's chapter, therefore, gives an overview of the blue economy and highlights knowledge management and the role it plays in supporting an innovative blue economy, particularly in SIDS. Here she differentiates or points out the similarities between the 'blue economy' and 'ocean economy'; identifies key stakeholders that are involved with the development of the blue economy and identifies and describes

appropriate management approaches. A case analysis of Seychelles, an island state that has done significant work on the blue economy, is used as an example. In this case, Hoareau suggests that “a more strategic and integrated knowledge system has the potential to link knowledge to action for sustainability more clearly” (Hoareau, this book). She concludes by saying that attention to the blue economy also allows for clearer framing of international engagement and collaboration to ensure that local customs and practices are valued and woven into development and management plans.

Adrian Spence, discusses the viability and value of the blue economy as a carbon sink in small island states and highlights the role of international cooperation in his Chapter 3 titled **International cooperation and carbon peaking and neutrality in Island Countries and Regions: The value of blue carbon**. He notes “Most scenarios illustrating the pathways to the long-term temperature goals of the Paris Agreement,” which aims to avoid dangerous warming of more than 1.5°C to 2.0°C are based on “rapid and transformative reduction of anthropogenic GHG emissions coupled with increasing large-scale carbon sinks: carbon capture, utilization, and storage.” The combined effects of these efforts are expected to achieve the ambitious goals of carbon peaking and neutrality by 2030 and 2060, respectively. Globally, most efforts have focused on reducing GHG emissions, and anchoring carbon in forests, while very little attention is afforded to the most efficient pathway to fix and store carbon—blue carbon. Given their unique terrestrial footprint and vast marine environments, island countries and regions are well positioned to support carbon peaking and neutrality. Therefore, this chapter will explore the salient social and ecological challenges and opportunities of blue carbon in the context of sustainable development and climate change.

Chapter Four: **Sustainable blue economy and international cooperation in island countries and regions: A focus on financing** by Andrew Halliday, starts by recognizing that “Island jurisdictions were leading voices in presenting and advocating the concept of a ‘blue economy’ to the international community which was realized and emerged from the Rio+20 Conference in 2012, including the later establishment of a specific sustainable development goal” which became SDG 14: Life below water. Halliday first takes us through the historical development of the blue economy, noting its several definitions and varying interpretations, and its focus on the marine of the marine environment which is also at the core of island societies and economies. Halliday discusses how the blue economy is complementary to the green economy paradigm being grounded in the three entwined pillars of sustainable development: the environment, economy, and society. Halliday then goes into the financing aspect of operationalizing the blue economy in island states. In this regard, he describes governance, climate finance, and blue finance as key challenges that small island states face with operationalizing the blue economy. In this regard, he examines recent financing efforts

in both the global and regional arenas which are attempting to chart a course toward international cooperation in operationalizing the blue economy. Halliday conducted a systematic ‘grey’ literature review of several media including media coverage and policy statements pertaining to island states, the international community, and blue economy funding mechanisms and programs, and juxtaposes this to the annual real GDP growth from the International Monetary Fund for the period 2018–2023 to understand the fiscal impacts of the coronavirus on island states. He finds that in the post-COVID-19 pandemic, the global momentum garnered by the blue economy paradigm prior to the onset of the pandemic is threatened by the challenging global economic conditions and emerging issues of international disharmony. Halliday concludes that in operationalizing the blue economy securing climate finance, specifically blue finance, for these marine-based climate actions is key and that there are numerous policy actions and interventions undertaken to structure and enable the injection of blue economy capital. He notes, however, that there remains a large gap in implementing actions and dispersing much-needed capital to island states and jurisdictions and that international cooperation is vital to achieving positive blue economy outcomes for island states.

The chapter penned by Angelique Louise Marie Pouponneau, presents three case studies in Belize, Fiji and Seychelles, that highlight the role that legislation plays in supporting the financing of the blue economy. In this chapter titled: **A case for legislative reform to accelerate investment and funding for a Sustainable Ocean Economy in Small Island Developing States (SIDS)**, Pouponneau readily identifies that the lack and/or absence of a stable and robust regulatory framework contribute to the trickle of finance into SIDS for the sustainable ocean economy (SOE). However, it is recognized, and notwithstanding the differing perspective that the three SIDS have on the Blue Economy or SOE, that SIDS depend heavily on international sources of funds to support and implement their blue economy (BE) plans. In this regard and after interrogating the laws of the three case SIDS, Pouponneau, was still unclear as to whether foreign investment laws were determinants of investments in SOE in SIDS. However, it was noted that the three SIDS already had some key laws in place and that funders may have other, ‘not yet studied’ motives for investing in the SOE in these SIDS. A second conclusion was that there is no ‘one-size-fits’ all approach to institutional arrangements for SOE in SIDS and thirdly, law and institutional arrangement are pivotal to balancing of the multiple objectives of the SOE in SIDS. The chapter concludes with the call to ensure that any legislative reform in SIDS support SOE/BE activities, that the very heterogenous nature of SIDS is considered, and that ‘one-size-fits-all’ legislative and institution reform is avoided.

SECTION 2: ISLAND AGRICULTURE

Steve Maximay’s chapter on **Perspectives and prospects for tropical island agri-**

culture: the Anglophone Caribbean, a perspective is provided from the vantage point of ground-level familiarity with the parallel development pathways of Anglophone Caribbean SIDS. The antecedents that have determined the current ownership structure and focus of island agriculture are reviewed in terms of plantations, post-independence agriculture, and the forays into foreign exchange earnings through commercial, export-oriented agriculture. The issues associated with island agriculture feeding residents and visitors are discussed in the context of commercial versus subsistence designations. The climate change era and its impacts on agriculture are traced from the Barbados Programme of Action through to the Caribbean Community Climate Change Centre's involvement. Efforts to separate agriculture from the Agriculture, Forestry, and Other Land Uses (AFOLU) designation, and the Paris Climate Agreement serve as a precursor to note the climate-determined future of agriculture. It concludes with the prospects for island agriculture and the case for optimism.

Tessa Barry and Jeanelle Joseph in Chapter Seven: **Agriculture development, agricultural extension and international cooperation in small island developing states (SIDS): The case of Grenada**, look at a small island case in which international cooperation played a critical role in the agricultural sector and specifically in agricultural extension services. The authors commence by looking at the global issue of food and nutrition insecurity and acknowledge the fact that this is addressed in the 2015 Sustainable Development Goals (SDGs). Barry and Joseph further highlight that Small Island Developing States (SIDS) such as Grenada, are faced with high rates of unemployment and poverty, climate change pressures, and the impacts of other external shocks such as war, which results in price volatilities. Coupled with these issues, the authors discuss the high dependency on imported foods and a lack of significant investment in the development of the agriculture sector, which further exacerbates the vulnerability of SIDS with regard to securing and maintaining food security. Moreover, the authors claim that agriculture is instrumental in contributing to food security, and in this regard, there is a need to focus on measures that can help develop the sector. Here they discuss the vital role of international cooperation and specifically to support agricultural extension services in small islands. Barry and Joseph note however, the significant concerns are the inadequacy of Rural Advisory Services/Agricultural Extension in SIDS, vis-à-vis: inadequate staffing, lack of funding, poor leadership, and inadequate tools and capacity to perform its role. After a comprehensive literature review, the authors analyze the collaborative efforts of three international organizations: the International Fund for Agricultural Development (IFAD), the Food and Agriculture Organization (FAO), and the Global Forum for Rural Advisory Services (GFRAS), through its Last Mile Project (LMP) in assisting with improving the agriculture sector in Grenada. The authors conclude that: “[I]nternational cooperation, therefore, continues to be and is now even more paramount to Grenada and other SIDS achieving sustainable development. Given the nature and scope of advisory ser-

vices and the role it plays in ensuring implementation of programs and projects the trust towards building capacity in extension is even more important.”

LIU Haiqing, looks at **Exploring the Pathways of High-Quality Development of Hainan’s Coconut Industry** in Chapter 8. Liu introduces the coconut industry as a key product of tropical islands’ agriculture and considers the Hainan province, known as ‘Coconut Island’ in China where coconut production is the fourth largest sector. Liu notes that in terms of planting area and production, coconut accounts for 69% and 65%, respectively and relating to processing, the industry employs approximately two million people directly and indirectly. The chapter then focuses on sales, trade (import and export) and technology. Liu then turns attention to some key issues with the industry and proposes that the coconut industry is: (1) key for rural revitalization, (2) a pillar industry for belt and road cooperation and (3) a model industry for ecological conservation. In spite of these contributions by the coconut industry, Liu notes some challenges that would have to be considered, inter alia, dealing with low levels of internationalization and mechanization and climate conditions. However, there are pathways suggested by Liu for high-quality development of the industry, key among them are: building policy and technical support systems, accelerating international cooperation, while establishing an international coconut organization.