The 21st Century Maritime Silk Road

Islands Economic Cooperation Forum

ANNUAL REPORT ON GLOBAL ISLANDS

2019

Foreign Affairs Office of Hainan Province, P.R. China
Institute of Island Studies at the University of Prince Edward Island, Canada

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An aerial view of Gardens by the Bay in Singapore.
Gardens by the Bay is a park spanning 101 hectares of reclaimed land.

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A background to island economies

Introduction

JAMES RANDALL, *University of Prince Edward Island, Canada*

Summary of the 2019 21st Century Maritime Silk Road Islands Economic Cooperation Forum

The theme of this year's Forum was to examine the role of international tourism for the sustainable development of islands. Given that Hainan is striving to become a centre for tourism with a global reach, this is a critically important local issue. The Forum was especially interested to hear from island guests how their islands were able to resolve the potential tensions caused by overtourism, and especially where there may be an imbalance between the economic goal of increasing the number of visitors and the amount of tourism revenue, while preserving the natural and cultural environments that attracted these tourists in the first place. Maintaining this balance is also vital in ensuring that the local population continues to support tourism.

This year's Forum was held on March 28, 2019. Moderated by Dr. Guðrún Þóra Gunnarsdóttir, Director of the Icelandic Tourism Research Centre, the forum included speakers and panelists who were asked to speak to the approach island countries and regions are taking towards tourism as an economic development strategy, and how they brand their islands as tourist destinations. Guests were also asked to apply their experience and knowledge to the situation facing Hainan as it strives to become a successful free trade zone. How can Hainan be more innovative in marketing itself to the world? Could Hainan place greater emphasis on tourism development while retaining its sustainability? These are not easy objectives to achieve.

As moderator, Dr. Gunnarsdóttir reminded those assembled that tourism in Iceland has rapidly become the most important sector on the island, displacing the more traditional primary activities such as fishing. She noted that these changes have brought both opportunities and challenges, something that other jurisdictions may wish to consider as they embrace tourism on their own islands. Prior to hearing from the speakers, the audience viewed a short film outlining the accomplishments of these Forums, including an island cooperation Declaration that strives to focus the resources and commitment of Hainan and international island research institutions, two conferences on island economic cooperation, and a series of these Global Island Reports highlighting the most recent research on islands by Chinese and international experts. Mr. Zhang Xu, Vice Minister of Culture and Tourism for the P.R. of China, then outlined the

measures that the central government in Beijing was taking to support Hainan's goals regarding tourism development and as a free trade zone. He noted that Hainan has long been an attractive destination for Chinese vacationers and that it was increasingly becoming a destination of choice among international travelers. Mr. Shen Danyang, Vice Governor of Hainan Province, then spoke to the importance of international cooperation in benefiting all jurisdictions emphasizing tourism. He noted that although islands within a region might be viewed as competitors for international tourists, there are ways to cooperate for mutual benefit. Strategies might include adopting a network approach to marketing, for example, in cruise tourism; differentiating destinations by emphasizing the unique characteristics of each place; and using the designation of the free trade zone and port in Hainan to increase tourism. This last point is important: it is not unusual for islands that have developed a specialization in finance and international trade such as Singapore and the British Virgin Islands to use their successes in these service activities as a spring board to expand their international tourism.

IT IS NOT UNUSUAL FOR islands that have developed a specialization in finance and international trade such as Singapore and the British Virgin Islands to use their successes in these service activities as a spring board to expand their international tourism.

In the ensuing panel discussion, each of the panelists was asked to speak to issues of sustainable tourism development. The first panelist, Mr. T. M. Rajith Keerthi Tennakoon, Governor of Southern Province in Sri Lanka, noted that his island country receives 2.3 million visitors per year, 230,000 of whom come from China. Sixty-five per cent of the international visitors to Sri Lanka travel to his Southern Province. They are attempting to emphasize culture and heritage and improve the mix of tourist products in order to attract a more diversified group of travelers, including from their sister province of Hainan.

Mr. Won Hee-Ryong, Governor of the Jeju Special Self-governing Province in South Korea, notes that Jeju attracts more than 15 million tourists per year. He suggests that Jeju is facing limits to its capacity to host greater numbers of tourists, reaching what has been referred to in the literature as 'overtourism' (see the chapter by Cheer, this volume; as well as Dodds & Butler, 2019; Milano, Cheer, & Novelli, 2018). His top priority is to create a 'Clean and Sustainable Jeju', including an aspirational goal of having all electricity used on the island generated by renewable sources by 2030. Governor Hee-Ryong noted that air and water pollution knows no international boundaries and requires international collaborative solutions. He implored those assembled to not delay collective action to climate change and pollution. After all, "We are one community; we breathe this air together."

Picking up on the comments by this last speaker, the moderator asked panelists how we can approach tourism in a more sustainable manner. Mr. Hiria Ottino, President of the Pacific-China Friendship Association, believed that in the Pacific region, tourism

is going to be the most important driver of economic growth, and especially opportunities for youth employment. At least for the Pacific islands, sustainable tourism means three things: 1) being linked to human and cultural assets, so that tourism must benefit the people on the islands; 2) tourism should help protect the natural environment, including the coral reefs and marine environment; and 3) there is a strong and integrated relationship between tourism stability and financial and economic stability. Mr. Ottino noted that the small size of some of the Pacific islands means that tourism represents a path to self-sufficiency. Without tourism it would be much more difficult to fund the necessary public services. He encouraged the Development Banks to play a more important role in tourism, both in providing technical assistance and funding for infrastructure development.

IN THE PACIFIC REGION, tourism is going to be the most important driver of economic growth, and especially opportunities for youth employment.

Mr. John Aquilina, Ambassador to China from Malta, took a more historical approach to tourism. He noted that, being located in a strategic location in the Mediterranean Sea, Malta has had international visitors for thousands of years. However, tourism in its modern form really only became important in the past 30 years. This was critical for Malta because it followed a time when Britain was withdrawing its military bases on the island in the early 1970s, creating economic turmoil and out-migration of young and professional Maltese. Tourism proved to be a foundational sector that turned the economy around. Although Malta's population of 460,000 people now receives more than 2.8 million tourists per year, this small island state has managed to diversify from tourism into the film sector, finance, and blockchain activities (see the chapter by Aloisio, this volume).

From the discussion that followed, it appeared that the various islands being represented by the panelists face very different tourism situations. Some, such as several Pacific islands and Sri Lanka, still have room for more tourism growth. The capacity to host more tourists is proving problematic for other islands, such as Iceland and Jeju. On these islands, it has been difficult for the development of tourism infrastructure to keep pace with the growth in the numbers of tourists. Interestingly, local citizens sometimes have an ambivalent attitude towards tourism. For example, on Jeju, if the number of tourists decreases, local citizens are quick to complain to the government. However, they are equally quick to express their dissatisfaction about overcrowding and a lack of infrastructure when they perceive there to be too many tourists. The panelists agreed that one of the strategies to combat overtourism is good governance, whereby the local population has a legitimate voice in tourism decision-making that will affect their quality of life. The panel also agreed that, although tourism is important in itself, caution should be taken to not rely on it too much and for too long. If the economic benefits of tourism are not used to diversify the island, the volatility that is an inherent feature

of the sector will eventually cause wild fluctuations between prosperity and recession.

The moderator then invited questions from the audience. Mr. Shen Danyang, Vice Governor of Hainan Province, China, asked about the availability and importance of international investment in tourism. The Ambassador from Malta noted that international investment can be critical, especially for small islands with little domestic capital. He gave the example of the Shanghai Electric Power Company that invested in renovating Malta's electricity power production facilities. This was needed at least partly to serve the tourism sector and now allows Malta to produce electricity by natural gas, a much cleaner and less expensive option than diesel. In return, the success of this project allowed Shanghai Electric Power to sign contracts to develop renewable energy infrastructure with other jurisdictions in Europe. Therefore, all parties benefited from the investment.

A representative from the Chinese Institute for Reform and Development asked the moderator to speak a little bit more about the tourism situation in Iceland, and especially the links to China. Dr. Gunnarsdóttir noted that Iceland has many of the same

Participants of the 2019 Islands Economic Cooperation forum, L-R: John Aquilina, Won Hee-Ryong, T. M. Rajith Keerthi Tennakoon, Shen Danyang, Zhang Xu, Wang Sheng, Hiria Ottino, and Guðrún Þóra Gunnarsdóttir (moderator).

challenges as other islands represented on this stage. They are a nation of 350,000 people and receive 2.2 million tourists per year. Over the past decade, there have been some occasions when tourist arrivals have increased by between 20 and 30% from one year to the next. More recently, the number of tourists from China has also increased significantly. By developing stronger relationships with China through case studies, shared research, and exchanges, it is her hope that Iceland can learn more about the Chinese culture and therefore be better able to accommodate the needs of Chinese tourists. She reminded those present that tourism is not just an economic phenomenon, it is also a cultural force.

TOURISM IS NOT JUST AN economic phenomenon, it is also a cultural force.

Mr. Wang Sheng, Director-General of the Foreign Affairs Office of Hainan Province, ended the session by launching the *Annual Report on Global Islands 2018*. This Report, edited by Dr. James Randall of the Institute of Island Studies, Prince Edward Island, Canada, provides an interpretation of the most recent statistical and port data on many of the world's island states and subnational island jurisdictions. The content focused on island development, free trade, and the connectedness of islands. The group photo on the previous page shows the participants in this year's Forum, each holding their copies of the 2018 Annual Report.

OUTLINE OF THIS REPORT

This Annual Report focuses on issues related to island tourism as a service activity and intermediary or producer services more generally. So, why focus on tourism, especially given recent events? There have been questions raised in the scholarly and public arenas about the future of international tourism. Concerns regarding the local impacts of mass tourism have existed long before questions about the impact of air travel on the production of greenhouse gases, sea-level rise, a possible global recession, and the role of air travel and cruise ships in the spread of infectious diseases. Although researchers and the general public are correct to raise these concerns, we may wish to put this into perspective by looking at how past extreme events have impacted tourism numbers. One year after the last global recession of 2008–2009, the number of international tourist arrivals declined by 4% and international tourism revenues declined by 6% (World Tourism Organization, 2013). However, this proved to be a temporary correction from longer-term exponential growth. Within one year, international tourist arrivals had rebounded by rising 7.6% and they have continued to increase consistently every year since 2009. Even with the recent concerns about health and travel, it is anticipated that international tourism will continue to be one of the fastest-growing economic sectors, and will be especially important for islands. This significance of tourism is not just economic; there are also cultural, environmental, and political dimensions that are intertwined with tourism.

In this Introduction, Randall reviews the discussion held at the 2019 Islands Economic Cooperation Forum. The speakers were asked to discuss the impacts and future of international tourism on their islands. The discussion, summarized above, outlined many of the tourism issues island governments are facing, offered some solutions, and served as an excellent primer to the rest of this Report. The first chapter by Randall and Brimacombe provides the most recent and relevant statistics on the demography and economy of islands. This update continues to be presented in two sections: one for island states and another for a small number of subnational island jurisdictions (SNIJs). Although these statistics do not vary significantly from year to year, by bringing them together in one place they become a permanent record of a set of critical characteristics of islands. It also constitutes a foundational document to eventually establish a global database of essential island statistics.

Part Two of this Report focuses on tourism as a service activity on islands. In Chapter 2, Connell offers an overview of tourism on islands. He conceptualizes tourism as a series of transformations: not only on employment but also on the forms of accommodation; the competition for land, income, and the connectedness of islands; the physical environment; and on society and culture. He notes that islands have faced an incredible diversity of experiences surrounding tourism, not all of them positive. While most island governments and companies support tourism with great expectations, they

tend not to be prepared for the problems, including inequity and volatility. In the past, local communities that served as the sites of tourism rarely took part in the decision-making, being viewed as bystanders or cheerleaders to development. Fortunately, that situation is changing. Now, most developers and governments realize that the most successful tourism initiatives involve the local communities right from the start of the development process. In Chapter 3, Ruggieri, Calò, and Orthodoxou introduce us to the terms 'overtourism' and 'undertourism'. Although we have already been introduced to the concept of overtourism, we are reminded that many tourist sites suffer from not meeting expectations. This duality, where tourism fluctuates above and below capacity, reminds us that even though tourism may be growing consistently at a global scale, in localities and regions tourism is often in flux. The chapter serves as a summary of the major current research on under- and overtourism.

Lew's research on tourism placemaking in Chapter 4 reminds us that tourist islands are not neutral landscapes. Instead, their images are intentionally created by destination marketing organizations (DMOs) based on their natural and built environments, the nature of the local population, i.e., their 'peoplescape', and how potential tourists perceive the islands, i.e., their 'mindscapes'. Although island destinations, and especially tropical island destinations, generally have advantages over other sites in all of these areas, it also becomes difficult for island governments to change their perceived images or to differentiate themselves from other similar island tourism destinations. Lew argues that you need to understand the peoplescape of a place to be able to reshape its tourism identity.

Much has been written about tourism sustainability indicators (Fernandez & Rivero, 2009; Ko, 2005; Tanguay, Rajaonson, & Therrien, 2013). In Chapter 5, Cheer takes a slightly different approach to this question. He asks, "What are the indicators that might determine whether, in the presence of tourism development, small island communities can build resilience?" He answers his own question by conceptually discussing, in the context of small islands, the nine criteria developed by the United Nations World Tourism Organization's Issue Areas for Sustainable Tourism. These are: local satisfaction, tourism seasonality, destination economic benefits, employment, energy, water, wastewater and solid waste management, and governance. He notes that getting it right with respect to indicators is important because, given their capacity limitations and relative fragility, small islands cannot afford blunders. Chapter 6 in this section, by Huang, Wang, and Zhong, reviews the potential for cruise tourism in the South China Sea region. They suggest that there is enormous potential for an expansion of cruise ship tourism among the islands and coastal communities of the region. However, countries that may wish to capitalize on this potential will need to pay attention to security threats, broadly defined. This includes terrorism, natural disasters, and, most recently, the spread of infectious diseases.

Part Three of this Report broadens the discussion from tourism as a service activity

to encompass many of the other producer and intermediate services that take place on islands. With our stereotypical fixation on islands as tourism meccas, we tend to forget that many islands have found their economic niche in other services, including banking and financial services. Pacheco and Pacheco (Chapter 7) focus on the role of what is referred to as the 'Orange Economy' on small islands: a broad suite of creative, design-intensive sectors that includes fashion, film, music, architecture, animation, and advertising. Despite the fact that, at the grassroots level, islanders have a proclivity to be creative and innovative (see Baldacchino, 2007; Connell, 2014), governments tend to marginalize investment in these sectors in favour of more traditional activities such as tourism and resource extraction. The authors suggest that the revolution in information and communications technologies provides an opportunity for small islands, regardless of their isolation, to capitalize on their creative assets. One very recent example of this ICT creativity is with respect to investments in blockchain and cryptocurrencies. In Chapter 8, Aloisio reviews this sector and suggests that small islands may be ideally positioned to adopt this as a strategy for economic development. He outlines the changes in the regulatory environment in Malta to allow us to understand how this is taking place. Finally, in Chapter 9, Chi focuses on the role that trade in services has played in the development trajectory of Hainan and how these activities could play a much greater role in the future if Hainan continues to develop its port into a broader free trade zone. This chapter reminds us that islands have always been connected to the rest of the world in multiple ways. As Hainan's economy opens to global opportunities, it creates both opportunities and challenges to Hainan citizens.

REFERENCES:

Baldacchino, G. (2007). Islands as novelty sites. *Geographical review, 97*(2), 165-174.

Connell, J. (2014). Alderney: Gambling, Bitcoin and the art of unorthodoxy. *Island Studies Journal, 9*(1), 69-78.

Dodds, R., & Butler, R. (Eds.). (2019). *Overtourism: Issues, realities and solutions* (Vol. 1). Oldenbourg: De Gruyter.

Fernández, J.I.P., & Sánchez Rivero, M. (2009). Measuring tourism sustainability: Proposal for a composite index. *Tourism Economics, 15*(2), 277-296.

Ko, T.G. (2005). Development of a tourism sustainability assessment procedure: A conceptual approach. *Tourism Management, 26*(3), 431-445.

Milano, C., Cheer, J.M., & Novelli, M. (2018). Overtourism: A growing global problem. The Conversation. Retrieved from https://theconversation.com/overtourism-a-growing-global-problem-100029

Tanguay, G.A., Rajaonson, J., & Therrien, M.-C. (2013). Sustainable tourism indicators: Selection criteria for policy implementation and scientific recognition. *Journal of Sustainable Tourism, 21*(6), 862-879.

World Tourism Organization (2013). *Economic crisis, international tourism decline and its impact on the poor.* Madrid, Spain: World Tourism Organization and International Labour Organization. Retrieved from https://www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---sector/documents/publication/wcms_214576.pdf

Over one million people drive across the Confederation Bridge to visit Prince Edward Island every year. At 12.9 kilometres, it is the longest bridge over ice-covered waters in the world.

1

The state of island economies and development in 2019

JAMES RANDALL
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with

ADAM BRIMACOMBE

This represents the third year that the Institute of Island Studies at the University of Prince Edward Island, Canada, has compiled and presented these data on island states and territories. If you have not yet read the two earlier Annual Reports, we would encourage you to do so (Randall, 2018; 2019). Many of the general patterns, including the diversity of islands, their capacity for development, and the challenges they face, are discussed in these earlier Reports and will not be repeated here. Rather, this chapter will focus on any significant numerical changes from the earlier statistical Reports and provide the reader with a background on how these characteristics may fit within the literature associated with the field of Island Studies.

SECTION 1: ISLAND STATES

When the United Nations (UN) was formed in 1945, only 6 of the original 51 members were islands. This constituted just less than 12% of the UN's membership at the time. By 2019 the UN consisted of 193 members, 45 of which were island states, representing over 23% of the membership of this international organization. By this measure alone, islands have increased the likelihood that they may have more influence over international decisions. We have seen island state groups, such as the Alliance of Small Island States (AOSIS), express that influence at major international conferences on climate change and sustainable development.

Population growth and population density, as reflected in Table 1.1, are often contentious measures of development in any jurisdiction. All other things being equal, greater numbers of people means greater consumption and production and more influence on the world stage. At the same time, it is just as important to assess the carrying capacities of those islands as well as how they use their assets to develop their islands, while providing a high quality of life for their citizens. So, for example, Singapore is a relatively tiny island as measured by areal extent but it is able to provide for almost six million people, largely because of its success in international trade and investment that uses the skills and human capital of its people. Compared to Singapore's population density of 7,953 people per km^2, Iceland has a density of only four people per km^2. However, Iceland's population is still highly urbanized, being concentrated in a few larger urban places like Reykjavík located around the coastline of the island. Although Sri Lanka has a population of over 22 million, it is a more agrarian society and its carrying capacity must reflect this difference.

TABLE 1.1: **Population, Population Density, and Average Annual Population Growth Rate, 2010 to 2018**

Continent	Island Country	Population (people) 2018	Population density (people /km^2) 2018	Growth Rate % 2010–2018
Asia	Japan	126,168,156	347	-0.2
	Singapore	5,995,991	7953	1.8
	Indonesia	262,787,403	148	0.8
	Timor-Leste	1,321,929	85	2.3
	Brunei Darussalam	450,565	81	1.6
	Philippines	105,893,381	358	1.6
	Sri Lanka	22,576,592	346	0.7
	Maldives	392,473	1719	-0.1
	Bahrain	1,442,659	2017	2.2

Continent	Island Country	Population (people) 2018	Population density (people /km²) 2018	Growth Rate % 2010–2018
Europe	Cyprus	1,237,088	129	1.3
	Iceland	343,518	4	1.1
	United Kingdom	65,105,246	275	0.5
	Ireland	5,068,050	70	1.1
	Malta	449,043	1511	1.0
Africa	Cabo Verde	568,373	135	1.3
	Madagascar	25,683,610	45	2.5
	Seychelles	94,633	210	0.7
	Mauritius	1,364,283	623	0.6
	Comoros	821,164	447	1.6
	São Tomé and Príncipe	204,454	220	1.7
Oceania	New Zealand	4,545,627	19	0.8
	Papua New Guinea	7,027,332	19	1.7
	Solomon Islands	660,121	23	1.9
	Vanuatu	288,037	24	1.8
	Fiji	926,276	48	0.6
	Tonga	106,398	143	-0.1
	Samoa	201,316	69	0.6
	Nauru	9,692	635	0.5
	Micronesia, Fed. States	103,643	161	-0.6
	Marshall Islands	75,684	325	1.5
	Kiribati	109,367	143	1.1
	Tuvalu	11,147	384	0.9
	Palau	21,516	39	0.4
	Cook Islands	9,038	–	-2.7
	Niue	1618 (2017)	–	-0.03 (2014)
Caribbean/	Cuba	11,116,396	109	-0.3
Americas	Haiti	10,788,440	404	1.3
	Dominican Republic	10,298,756	220	1.0
	Jamaica	2,812,090	271	-0.1
	Bahamas, The	332,634	39	0.8
	St. Kitts and Nevis	53,094	202	0.7
	Antigua and Barbuda	95,882	219	1.2
	St. Vincent and the Grenadines	101,844	283	-0.2
	St. Lucia	165,510	298	0.3
	Grenada	112,207	328	0.4
	Barbados	293,131	667	0.3
	Trinidad and Tobago	1,215,527	271	-0.2
	Dominica	74,027	96	0.2

We also have to be cautious about the population figures presented here. As static measures they may fail to capture the dynamism that is associated with the movement of people. For example, the populations of many of the island states in Oceania move back and forth from their island homes to second and temporary homes in New Zealand, Australia, and the US. So when you include the mobility of this island diaspora and the population churn that takes place seasonally, annually, and intermittently, defining a jurisdiction's population becomes more complex. Moreover, as a result of their Exclusive Economic Zones that encompass vast marine areas around archipelagos, it is misleading to think of carrying capacities being based solely on islands' total land areas. In fact, reflecting this larger terrestrial and marine environment, many of these islands no longer refer to themselves as small island states but instead describe themselves as large ocean states.

The comments above could also easily apply to the figures presented in Tables 1.2 and 1.3 and Figure 1.1. The only difference is that life expectancy at birth and the share of the population living in cities are normally fairly accurate indicators of the broader social development of jurisdictions. Health and social systems that are well developed, such as is the case in Japan and Iceland, allow people to live longer. At the other extreme, health infrastructures that are underfunded and underdeveloped lead to poor health outcomes, including lower life expectancies.

TABLE 1.2: **Crude Birth Rate, Crude Death Rate, and Life Expectancy at Birth, 2018**

Continent	Island Country	Crude Birth Rate/1000	Crude Death Rate/1000	Life Expectancy at Birth
Asia	Japan	7.5	9.9	85.5
	Singapore	8.7	3.5	85.5
	Indonesia	15.9	6.5	73.2
	Timor-Leste	32.9	5.8	68.7
	Philippines	23.4	6.1	69.6
	Sri Lanka	14.8	6.3	77.1
	Maldives	16.1	4.0	76.0
	Bahrain	13.1	2.8	79.1
Europe	Cyprus	11.2	6.8	79.1
	Iceland	13.6	6.5	83.1
	United Kingdom	12.0	9.4	80.9
	Ireland	13.8	6.6	81.0
	Malta	10.0	7.9	82.7

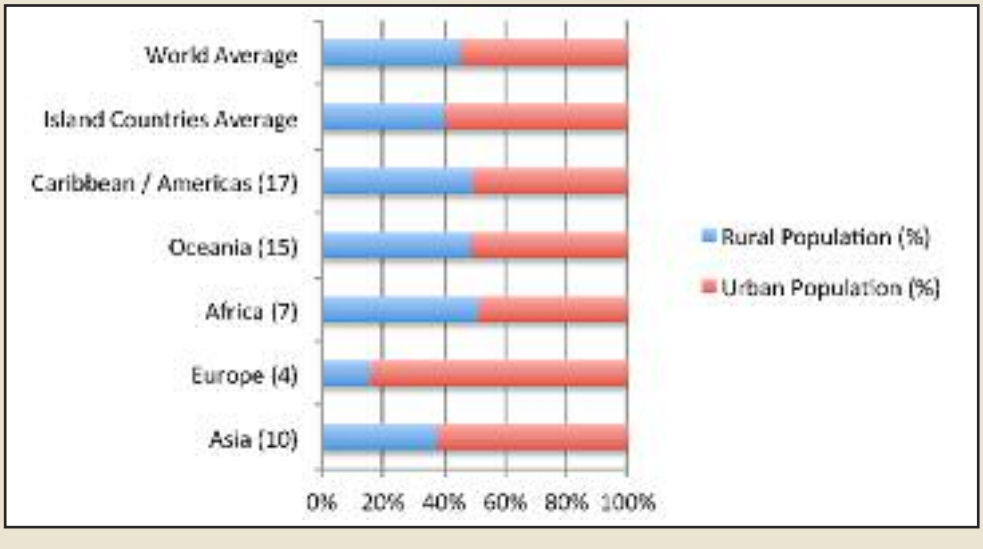
Continent	Island Country	Crude Birth Rate/1000	Crude Death Rate/1000	Life Expectancy at Birth
Africa	Cabo Verde	19.7	6.0	72.7
	Madagascar	31.0	6.4	66.6
	Seychelles	13.4	7.0	75.2
	Mauritius	12.8	7.1	76.0
	Comoros	25.3	7.1	64.9
	São Tomé and Príncipe	31.5	6.7	65.7
Oceania	New Zealand	13.1	7.6	81.4
	Papua New Guinea	23.3	6.6	67.5
	Solomon Islands	24.5	3.8	75.8
	Vanuatu	24	4.0	74.0
	Fiji	18.2	6.2	73.2
	Tonga	21.8	4.9	76.6
	Samoa	20.2	5.4	74.2
	Nauru	23.2	5.9	67.8
	Micronesia, Fed. States	19.6	4.2	73.4
	Marshall Islands	23.8	4.2	73.6
	Kiribati	21.0	7.0	66.9
	Tuvalu	23.7	8.4	67.2
	Palau	11.3	8.2	73.6
	Cook Islands	13.7	8.6	76.2
	Niue	–	–	–
Caribbean/	Cuba	10.6	8.9	78.9
Americas	Haiti	22.6	7.5	64.6
	Dominican Republic	18.9	6.4	71.3
	Jamaica	16.5	7.6	74.5
	Bahamas, The	15.1	7.3	72.9
	St. Kitts and Nevis	13.0	7.2	76.2
	Antigua and Barbuda	15.6	5.8	76.9
	St. Vincent and the Grenadines	13.0	7.4	75.8
	St. Lucia	13.1	7.8	78.1
	Grenada	15.2	8.2	74.8
	Barbados	11.6	8.6	75.7
	Trinidad and Tobago	12.3	8.9	73.4
	Dominica	15.0	7.9	77.4

TABLE 1.3: **Percentage of Rural and Urban Populations, 2015 and 2019**

Continent	Island Country	RURAL POPULATION (%)		URBAN POPULATION (%)	
		2015	2019	2015	2019
Asia	Japan	6.5	8.4	93.5	91.7
	Singapore	0	0	100	100
	Indonesia	46.3	44.7	53.7	56.0
	Timor-Leste	67.2	69.4	32.8	30.9
	Brunei Darussalam	22.8	22.4	77.2	77.9
	Philippines	55.6	53.1	44.4	47.1
	Sri Lanka	81.6	81.5	18.4	18.6
	Maldives	54.5	60.2	45.5	40.2
	Bahrain	11.2	10.7	88.8	89.4
Europe	Cyprus	33.1	33.2	66.9	66.8
	Iceland	5.9	6.2	94.1	93.9
	United Kingdom	17.4	16.6	82.6	83.7
	Ireland	36.8	36.8	63.2	63.4
	Malta	4.6	5.4	95.4	94.7
Africa	Cabo Verde	34.5	34.3	65.5	66.2
	Madagascar	64.9	62.8	35.1	37.9
	Seychelles	46.1	43.3	53.9	57.1
	Mauritius	60.3	59.2	39.7	40.8
	Comoros	71.7	71.0	28.3	29.2
	São Tomé and Príncipe	34.9	27.2	65.1	73.6
Oceania	New Zealand	13.7	13.5	86.3	86.6
	Papua New Guinea	87.0	86.8	13.0	13.2
	Solomon Islands	77.7	76.3	22.3	24.2
	Vanuatu	73.9	73.2	26.1	25.4
	Fiji	46.3	43.8	53.7	56.8
	Tonga	76.3	76.9	23.7	23.1
	Samoa	80.9	81.9	19.1	18.1
	Nauru	0	0	100.0	100.0
	Micronesia, Fed. Sts.	77.6	77.2	22.4	22.8
	Marshall Islands	27.3	22.6	72.7	77.4
	Kiribati	55.7	45.2	44.3	54.8
	Tuvalu	40.3	36.8	59.7	63.2
	Palau	12.9	19.5	87.1	80.5
	Cook Islands	25.0 (2014)	24.7	75.0 (2014)	75.3
	Niue	62.0 (2014	54.5	38.0 (2014)	45.5

Continent	Island Country	RURAL POPULATION (%)		URBAN POPULATION (%)	
		2015	2019	2015	2019
Caribbean/	Cuba	22.9	22.9	77.1	77.1
Americas	Haiti	41.3	43.8	58.7	56.2
	Dominican Republic	21.1	18.2	78.9	81.8
	Jamaica	45.2	44.0	54.8	56.0
	Bahamas, The	17.1	16.9	82.9	83.1
	St. Kitts and Nevis	67.9	69.2	32.1	30.8
	Antigua and Barbuda	76.2	75.5	23.8	24.5
	St. Vincent and the Grenadines	49.4	47.4	50.6	52.6
	St. Lucia	81.5	81.2	18.5	18.8
	Grenada	64.4	63.6	35.6	36.4
	Barbados	68.4	68.8	31.6	31.2
	Trinidad and Tobago	91.5	46.8	8.5	53.2
	Dominica	30.5	29.2	69.5	70.8

FIGURE 1.1: **Percentage of Rural and Urban Populations of Island Countries on Each Continent, 2017**



There are exceptions to these broad generalizations. While we normally think of high levels of urbanization as a surrogate indicator of economic progress, many of the largest cities on islands, such as Malé in the Maldives, are growing because of the migration from outlying islands of people who are no longer able to sustain themselves and are looking for opportunities for themselves and their children in the larger cities in their archipelagos. This often results in the growth of slums or shanty towns, low levels of formal employment, inadequate public health and education services in the destination cities, and a hollowing out of the outlying islands.

Tables 1.4 and 1.5 provide the standard measures of economic production and growth, Gross Domestic Product (GDP) and Gross National Income (GNI). They are provided in aggregate so that the reader can see the absolute size of the island economies. They are also standardized by taking account of their populations (i.e., per capita) in order to provide a rough comparison across different jurisdictions. Despite their apparent vulnerabilities, many island states have consistently performed well across the standard economic indicators compared to mainland states of similar size.

TABLE 1.4: Gross Domestic Product (GDP) and Change in GDP; Per Capita GDP and Change in GDP/capita, 2018

Continent	Island Country	GDP 2018 In millions of USD (World Bank)	Growth Rate of GDP % (World Bank)	GDP per capita 2018 in USD (CIA)	Growth Rate of GDP per capita % (World Bank)
Asia	Japan	4,970,916	0.8	42,900	1.0
	Singapore	364,157	3.1	94,100	2.7
	Indonesia	1,042,173	5.2	12,400	4.0
	Timor-Leste	2,581	3	6,000	0.8
	Brunei Darussalam	13,567	0.1	78,900	-1.0
	Philippines	330,910	6.2	8,400	4.8
	Sri Lanka	88,901	3.2	12,900	2.1
	Maldives	5272.29	6.1	19,200	2.1
	Bahrain	37,746	1.8	49,000	-3.1
Europe	Cyprus	24,470	3.9	37,200	2.7
	Iceland	25882	4.6	52,200	1.6
	United Kingdom	2,825,208	1.4	44,300	0.7
	Ireland	382,487	8.2	73,200	7.1
	Malta	14,542	6.6	41,900	3.1
Africa	Cabo Verde	1,987	5.5	7,000	4.3
	Madagascar	12,100	5.2	1,600	2.4
	Seychelles	1,590	3.6	29,300	2.6
	Mauritius	14,220	3.8	22,300	3.7
	Comoros	1203	2.8	1,600	0.5
	São Tomé and Príncipe	422	2.7	3,200	0.7

Continent	Island Country	GDP 2018 in millions of USD (World Bank)	Growth Rate of GDP % (World Bank)	GDP per capita 2018 in USD (CIA)	Growth Rate of GDP per capita % (World Bank)
Oceania	New Zealand	205,025	2.8	39,000	0.9
	Papua New Guinea	23,432	0.4	3,700	-1.5
	Solomon Islands	1,412	3.4	2,200	0.7
	Vanuatu	888	3.2	2,700	0.7
	Fiji	5,480	5.0	9,800	4.3
	Tonga	450	0.3	5,900	-0.9
	Samoa	861	0.7	5,700	0.3
	Nauru	115	-3.5	12,300	-2.2
	Micronesia, Fed. Sts.	345	1.4	3,400	0.3
	Marshall Islands	212	2.5	3,600	1.9
	Kiribati	188	2.0	2,000	0.5
	Tuvalu	43	2.5	3,800	1.3
	Palau	310	5	14,700	4.4
	Cook Islands	–	–	16,700(2016)	–
	Niue	–	–	5,800 (2003)	–
Caribbean/	Cuba	96,851.00 (2017)	1.8 (2017)	12,300 (2016)	1.7 (2017)
Americas	Haiti	9,658	1.5	1,800	0.2
	Dominican Republic	81,299	7.0	17,000	5.8
	Jamaica	15,718	1.9	9,200	1.4
	Bahamas, The	12,162	1.4 (2017)	32,400	0.4 (2017)
	St. Kitts and Nevis	1040	3.0	28,200	2.2
	Antigua and Barbuda	1,624	4.9	26,400	4.0
	St. Vincent and the Grenadines	813	2.6	11,500	2.2
	St. Lucia	1,876	0.6	14,400	0.1
	Grenada	1,207	4.8	15,100	4.3
	Barbados	4,673.50 (2017)	1.0 (2017)	18,600	0.8
	Trinidad and Tobago	23,410	0.7	31,300	0.3
	Dominica	504	0.5	11,000	0.3

TABLE 1.5: Gross National Income (GNI) per Capita, 2018

Continent	Island Country	Gross National Income per capita, Purchasing Power Parity (International $) (World Bank)
Asia	Japan	44,420
	Singapore	94,500
	Indonesia	12,650
	Timor-Leste	6,990
	Brunei Darussalam	85,790
	Philippines	10,720
	Sri Lanka	13,090
	Maldives	14,120
	Bahrain	44,620
Europe	Cyprus	35,170
	Iceland	55,190
	United Kingdom	44,930
	Ireland	65,290
	Malta	38,940
Africa	Cabo Verde	7,330
	Madagascar	1,580
	Seychelles	29,070
	Mauritius	26,030
	Comoros	2,730
	São Tomé and Príncipe	3,430
Oceania	New Zealand	39,590
	Papua New Guinea	4,150
	Solomon Islands	2,280
	Vanuatu	3,160
	Fiji	10,250
	Tonga	6,510
	Samoa	6,620
	Nauru	19,480
	Micronesia, Fed. Sts.	4,160
	Marshall Islands	5,290
	Kiribati	4,410
	Tuvalu	6,090
	Palau	18,820
	Cook Islands	N/a
	Niue	N/a

Continent	Island Country	Gross National Income per capita, Purchasing Power Parity (international $) (World Bank)
Caribbean/	Cuba	N/A
Americas	Haiti	1,870
	Dominican Republic	16,960
	Jamaica	8,930
	Bahamas, The	30,920 (2017)
	St. Kitts and Nevis	30,120
	Antigua and Barbuda	25,160
	St. Vincent and the Grenadines	13,210
	St. Lucia	12,970
	Grenada	14,270
	Barbados	17,640
	Trinidad and Tobago	32,060
	Dominica	10,680

Gross National Income is provided because several characteristics associated with island economies may make this economic measure more appropriate than the more traditional Gross Domestic Product. First, GNI includes the spending by foreigners if they are in the country but not if they are outside the country. This is especially important for places that have a large tourism sector. Second, unlike the GDP, the GNI includes spending by residents who are out of the country if these funds are remitted back to the country. This is especially important for islands with large diasporas. As we already know, remittances can sometimes form a key component of overall island revenue. In places such as Haiti and Jamaica, remittances are greater than the total revenues from development assistance (Minto-Coy, Elo, & Chrysostome, 2019). The Polynesian region of the Pacific is one of the most remittance-dependent areas of the world—understandable given that there are an estimated 850,000 Polynesians of ethnic ancestry living abroad, more than the total living on the islands themselves (Connell, 2015). There are at least two advantages of the MIRAB (MIgration, Remittances, Aid, and Bureaucracy) approach to economic development. First, revenue from aid and remittances has been remarkably stable over a long period. Second, unlike most aid from external institutions that is devoted to large infrastructure projects, remittances are micro-oriented. These funds are sent directly to the families and local communities, who make consumption decisions they feel are in their own best interests (Bertram, 1999).

TABLE 1.6: **Labour Force, Participation Rate, and Unemployment Rate, 2018**

Continent	Island Country	Labour Force est. (2018)	Force Participation Rate % (World Bank)	Unemployment Rate % est. (2018)
Asia	Japan	66,801,000	78	2.9
	Singapore	3,409,000	76	2.2
	Indonesia	133,950,000	69	5.4
	Timor-Leste	315,000	40	4.4 (2014)
	Philippines	45,049,000	62	5.7
	Sri Lanka	8,648,000	57	4.4
	Maldives	279,000	68	2.9
	Bahrain	977,000	75	3.6
Europe	Cyprus	619,000	73	11.1
	Iceland	217,000	88	2.8
	United Kingdom	34,281,000	78	4.4
	Ireland	2,357,000	73	6.7
	Malta	227,000	70	4.4
Africa	Cabo Verde	273,000	73	9.0
	Madagascar	13,911	88	1.8
	Seychelles	39,560 (2006)	–	3.0
	Mauritius	608,000	66	7.1
	Comoros	229,000	45	6.5 (2014)
	São Tomé and Príncipe	74,000	62	12.2
Oceania	New Zealand	2,771,000	81	4.7
	Papua New Guinea	2,640,000	48	2.5 (2017)
	Solomon Islands	286,000	72	N/a
	Vanuatu	130,000	71	1.7 (1999)
	Fiji	360,000	60	4.5
	Tonga	41,000	61	1.1 (2011)
	Samoa	38,000	33	N/a
	Cook Islands	5,774 (2011)	71 (2011)	13.1 (2005)
	Niue	663 (2001)	–	12.0 (2001)
Caribbean	Cuba	5,089,000	64	2.6
Americas	Haiti	5,151,000	69	40.6 (2010)
	Dominican Republic	4,977,000	68	5.1
	Jamaica	1,515,000	73	12.2
	Bahamas, The	226,000	82	10.1

Continent	Island Country	Labour Force est. (2018)	Force Participation Rate % (World Bank)	Unemployment Rate % est. (2018)
	St. Kitts and Nevis	18,170 (1995)	–	4.5 (1997)
	Antigua and Barbuda	30,000 (1991)	–	11.0 (2014)
	St. Vincent and the Grenadines	59,000	74	18.8 (2008)
	St. Lucia	101,000	75	20.0 (2003)
	Grenada	59,900 (2013)	–	24.0
	Barbados	155,000	78	10.1
	Trinidad and Tobago	669,000	68	4.9
	Dominica	25,000 (2007)	–	23.0 (2000)

The recorded unemployment rates for small island states (Table 1.6) are remarkably low historically and in comparison to other jurisdictions. Unfortunately, some of the highest rates are in the Caribbean islands. Although we have to be cautious about interpreting these statistics given the absence of recent data, this is problematic for this region. What we do know is that youth unemployment is even higher than presented in these overall statistics (Maharaj & Lewis-Bynoe, 2016). In the past, the Caribbean island region has experienced low export prices, increasing debt, shrinking investment, inflation, and rising unemployment brought on in part by the adoption of austerity programs (Deere et al., 1990). The global recession in 2008–09 did not help, and, as of 2015, many countries in the region were suffering from high debt load and low growth (McLean & Charles, 2018). Since 2017, several severe hurricanes in different parts of the Caribbean have adversely affected the tourism and agricultural sectors in a number of islands in the region, resulting in emigration and the loss of opportunities for those who have remained behind.

TABLE 1.7: **Human Development Index, 2018**

Island Country	Island Ranking	World Ranking	HDI Value
Ireland	1	3	0.942
Iceland	2	6	0.938
Singapore	3	9	0.935
New Zealand	4	14	0.921
United Kingdom	5	15	0.920
Japan	6	19	0.915
Malta	7	28	0.885
Cyprus	8	31	0.873
Brunei Darussalam	9	43	0.845
Bahrain	10	45	0.838
Palau	11	55	0.814
Barbados	12	56	0.813
Bahamas	13	60	0.805
Seychelles	14	62	0.801
Trinidad and Tobago	15	63	0.799
Mauritius	16	66	0.796
Sri Lanka	17	71	0.780
Cuba	18	72	0.778
St. Kitts and Nevis	19	73	0.777
Antigua and Barbuda	20	74	0.776
Grenada	21	78	0.763
St. Lucia	22/23 (tied)	89 (tied)	0.745
Dominican Republic	22/23 (tied)	89 (tied)	0.745
St. Vincent and the Grenadines	24	94	0.728
Jamaica	25	96	0.726
Fiji	26/27 (tied)	98 (tied)	0.724
Dominica	26/27 (tied)	98 (tied)	0.724
Maldives	28	104	0.719
Tonga	29	105	0.717

Island Country	Island Ranking	World Ranking	HDI Value
Philippines	30	106	0.712
Indonesia	31/32 (tied)	111 (tied)	0.707
Samoa	31/32 (tied)	111 (tied)	0.707
Marshall Islands	33	117	0.698
Cabo Verde	34	126	0.651
Timor-Leste	35	131	0.626
Kiribati	36	132	0.623
Micronesia, Fed. States	37	135	0.614
São Tomé and Príncipe	38	137	0.609
Vanuatu	39	141	0.597
Solomon Islands	40	153	0.557
Papua New Guinea	41	155	0.543
Comoros	42	156	0.538
Madagascar	43	162	0.521
Haiti	44	169	0.503

Very few changes have taken place in island states' Human Development Index (HDI) values from last year's Report. It must be re-emphasized that, despite development challenges, only 4 of the 46 island states listed in Table 1.7 are considered to have a Low HDI value (i.e., below 0.550). Moreover, the HDI may not adequately reflect the situation facing many Small Island Developing States (SIDS). HDIs measure current progress and are relatively crude measures of sustainability, and particularly the economic and environmental sustainability challenges facing small islands (Blancard & Hoarau, 2013). The HDI also does not show what some of the less conventional measures reveal: that islanders are often very satisfied with their own lives (Abdallah et al., 2009). As we have seen recently, unanticipated disasters precipitated by extreme weather events are especially problematic for the development of islands, especially if they rely extensively on tourism. It may be that a 'disaster risk' component needs to be built into composite indicators such as the HDI to more accurately reflect these possibilities and vulnerabilities (Mochizuki & Naqvi, 2019). The HDI and, for that matter, narrower macroeconomic indicators of development, also do not allow us to measure the degree of equity in the distribution of wealth or the consumption of public services. Urban elites tend to have greater access than the rural/outlying island poor to the three features associated with the HDI: educational opportunities, health services, and (government) jobs (Hassall, 2019).

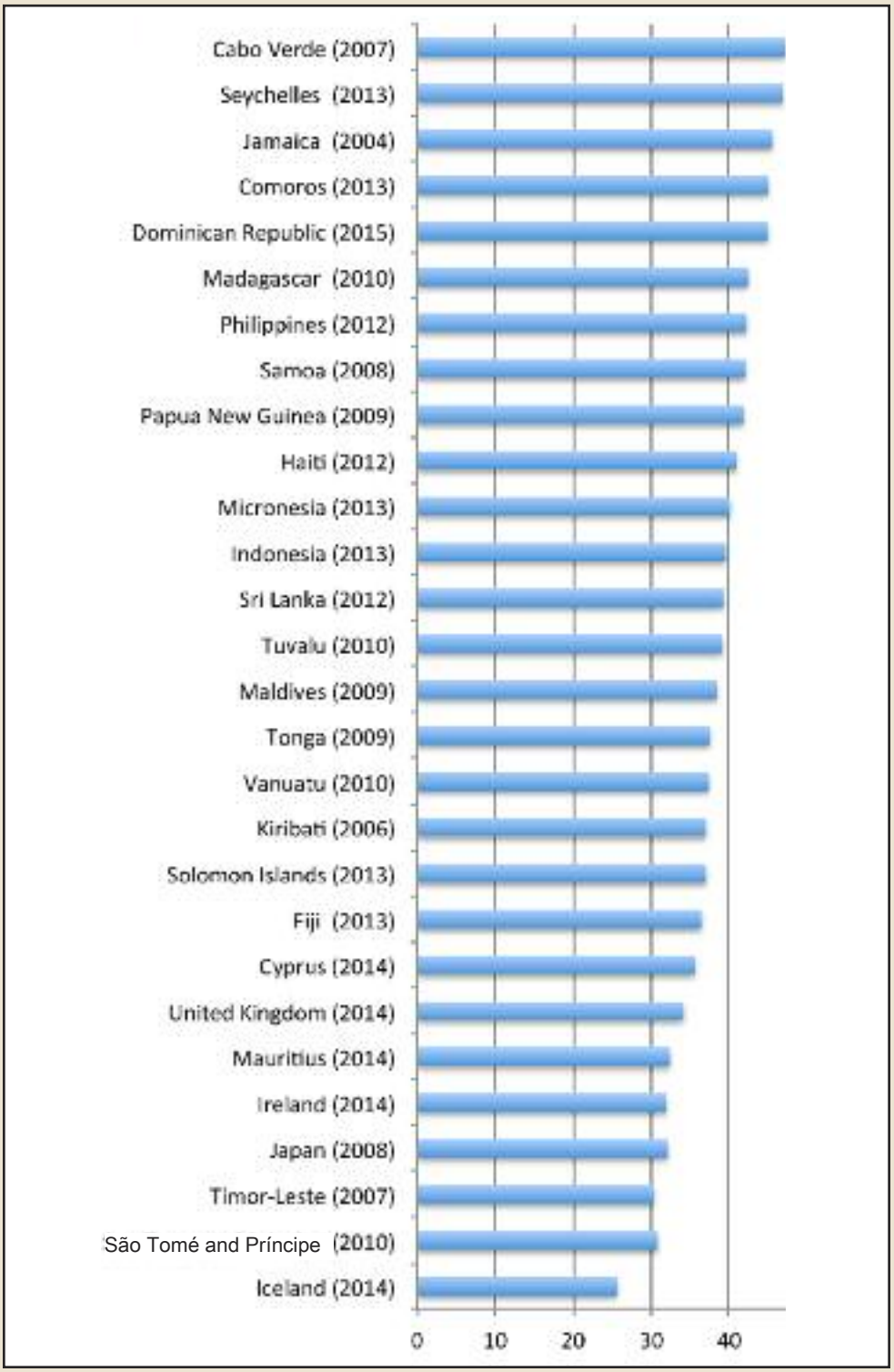
TABLE 1.8: **Consumer Price Index, Compared to Base Year of 2010**

Continent	Island Country	2010	2015	2016	2017	2018
Asia	Japan	100	104	104	104	105
	Singapore	100	113	113	113	114
	Indonesia	100	132	137	142	147
	Timor-Leste	100	143	141	142	142
	Brunei Darussalam	100	100	102	99	99
	Philippines	100	116	120	120	127
	Sri Lanka	100	131	134	147	150
	Maldives	100	132	135	136	136
	Bahrain	100	111	114	115	118
Europe	Cyprus	100	102	100	101	102
	Iceland	100	118	120	122	125
	United Kingdom	100	112	113	116	118
	Ireland	100	105	105	105	106
	Malta	100	108	109	110	112
Africa	Cabo Verde	100	109	107	108	109
	Madagascar	100	140	-	-	-
	Seychelles	100	121	120	123	128
	Mauritius	100	120	121	125	129
	Comoros	100	98	–	–	-
	São Tomé and Príncipe	100	154	162	172	185
Oceania	New Zealand	100	108	109	111	112
	Papua New Guinea	100	128	136	144	-
	Solomon Islands	100	125	126	127	-
	Vanuatu	100	107	108	111	-
	Fiji	100	116	121	125	130
	Tonga	100	110	113	121	-
	Samoa	100	108	110	112	116
Caribbean/	Haiti	100	139	158	181	179
Americas	Dominican Republic	100	123	124	129	133
	Jamaica	100	141	144	151	156

Continent	Island Country	2010	2015	2016	2017	2018
	Bahamas, The	100	110	109	111	113
	St. Kitts and Nevis	100	106	105	106	105
	Antigua and Barbuda	100	110	110	112	114
	St. Vincent and the Grenadines	100	105	105	107	110
	St. Lucia	100	111	108	108	110
	Grenada	100	104	106	107	107
	Barbados	100	117	119	124	-
	Trinidad and Tobago	100	134	138	140	142
	Dominica	100	103	103	103	104

Table 1.8 shows that most islands in the developed world continue to show modest inflation, as reflected in the Consumer Price Index (CPI). Japan's CPI has increased by only 5% in eight years. Similarly low inflation continues for Ireland and, perhaps surprisingly, Grenada. Inflation also seems to have stabilized in many other developing island states, including the Maldives, Haiti, Timor-Leste, and Sri Lanka. This is not the case for places such as Sao Tome and Principe and the Philippines. Although SIDS are a diverse group, inflationary pressures tend to be greater among these small developing islands because of their small scale and dependency on products over which they have no price control, such as fossil fuels. Among developed islands, Iceland experienced rapid inflation following the global recession in 2008/09 but has since stabilized.

FIGURE 1.2: **Gini Coefficients of National Incomes, various dates**



Readers will recall from previous versions of this Report that the Gini Coefficient, as shown in Figure 1.2, is a numerical measure of the degree of equality in a jurisdiction, often using income to distinguish among income groups. Those islands with lower coefficients have a more equal distribution of income between the poor and the wealthy, while those islands with the highest Gini values have the greatest differences between the various income cohorts. Presumably, greater differences in the distribution of income also leads to inequalities in access to other opportunities. Although few of the values in this figure are recent, it is unlikely that these values change quickly. The lowest values are in developed economies such as Iceland, Japan, Ireland, and the United Kingdom. Ironically, by specializing in international finance, some islands exacerbate the inequality in other developed countries as high net worth individuals try to shield their income and assets from taxation in their home countries (Solimano, 2019).

TABLE 1.9: **Foreign Direct Investment, Net Current, 2018 (in 100 million USD)**

Continent	Island Country	2018 FDI Inflows	2018 FDI Outflows	Total FDI
Asia	Japan	9,858	160,449	170,307
	Singapore	77,646	24,682	102,328
	Indonesia	21,980	2,912	24,892
	Timor-Leste	48	0	48
	Philippines	6,456	1,614	8,070
	Sri Lanka	1,611	72	1,683
	Bahrain	1515	229	1744
Europe	Cyprus	6,343	1,332	7,675
	Iceland	-336	-85	-421
	United Kingdom	64,487	99,614	164,101
	Ireland	-66,346	18,614	-47,732
	Malta	4,061	-7,115	-3,054
Africa	Cabo Verde	100	-14	86
	Madagascar	349	-1	348
	Seychelles	124	6	130
	Mauritius	372	61	433
	Comoros	8	0	8
	São Tomé and Príncipe	17	0	17
Oceania	New Zealand	1,404	582	1,986
	Papua New Guinea	335	0	335
	Solomon Islands	12	6	18
	Vanuatu	38	1	39
	Fiji	344	-23	321
	Tonga	8	1	9
	Samoa	17	0	17
	Micronesia, Fed. Sts.	0	0	0
	Marshall Islands	-1	0	-1
	Kiribati	1	0	1
	Tuvalu	0.3	0	0.3
	Palau	22	0	22
	Cook Islands	5	1,133	1,138

Continent	Island Country	2018 FDI Inflows	2018 FDI Outflows	Total FDI
Caribbean/	Haiti	105	0	105
Americas	Dominican Republic	2,535	0	2,535
	Jamaica	775	13	788
	Bahamas, The	943	119	1,062
	St. Kitts and Nevis	85	-1	84
	Antigua and Barbuda	116	9	125
	St. Vincent and the Grenadines	100	-5	95
	St. Lucia	135	13	148
	Grenada	127	15	142
	Barbados	195	34	229
	Trinidad and Tobago	-436	155	-281
	Dominica	-37	0	-37

Foreign Direct Investment (FDI) can play a crucial role in the economic development of jurisdictions, particularly in those places that are more remote (Feeny, Iamsiraroj, & McGillivray, 2014). Unfortunately, it appears that the relative flow of FDI to small islands tends to be low, in part because of their distance from major lenders, perceptions of poor governance, and openness to trade and development of human capital (Read, 2018; Yusheng et al., 2019). One of the key sectors for FDI on small islands is in tourism development, at least partly because this sector is so important on so many small islands. Unfortunately, there is often insufficient domestic capital for some of the infrastructure needed for mass tourism, including hotels, airports, transportation, and water systems. Although there are exceptions, SIDS also have been slow to put in place the policies that are necessary to take advantage of this FDI, including the supply chains to serve the hotels, the skills and training programs that might allow their citizens to participate more fully across a broader range of occupations, and encouraging domestic entrepreneurial activities (Barrowclough, 2007). The growing concern about the vulnerability of islands to the impacts of sea-level rise has also given pause to transnational corporations (TNC) that may have been considering investing in these low-lying coastal places (Farbotko, 2010).

TABLE 1.10: Rankings and Scores of Globalization Index, 2016

Island Country	Globalization Index				Economic globalization	Social globalization	Political globalization
	Island country ranking	World ranking	Score	Change in World ranking 2015-16			
United Kingdom	1	5	89.84	3 (8)	81.47	90.15	97.90
Ireland	2	17	84.47	-4	87.97	88.50	76.94
Singapore	3	20	83.62	3	94.00	88.42	68.43
Cyprus	4	35	79.14	3	84.28	86.45	66.69
Japan	5	37	78.59	-2	66.65	80.39	88.73
New Zealand	6	38	78.34	-6	70.28	86.89	77.85
Malta	7	39	77.79	-5	86.50	84.71	62.15
Mauritius	8	50	72.47	2	82.16	79.17	56.09
Iceland	9	53	72.34	-5	69.20	86.12	61.68
Bahrain	10	63	69.30	4	82.54	73.51	52.03
Philippines	11	72	67.41	2	57.48	61.79	82.96
Dominican Republic	12	73	67.35	13	56.91	71.76	73.37
Jamaica	13	77	66.21	-5	62.92	70.05	65.67
Trinidad and Tobago	14	79	65.69	-4	66.47	72.90	57.70
Brunei Darussalam	15	90	62.55	-8	66.80	71.22	50.30
Seychelles	16	91	62.50	-14	74.82	74.58	39.45
Indonesia	17	92	62.47	-9	48.10	52.02	87.28
Barbados	18	93	62.35	–	61.11	79.29	46.63
Cuba	19	94	62.15	4	–	49.25	79.43
Antigua and Barbuda	20	100	60.56	5	68.57	80.91	35.33
Sri Lanka	21	102	59.51	10	42.43	58.00	78.03
Fiji	22	107	58.13	-5	53.56	68.57	52.80
St. Lucia	23	108	57.16	7	65.29	74.37	37.58
Dominica	24	111	56.90	16	63.38	76.53	34.36
Cape Verde	25	112	56.78	25	57.43	66.71	47.52
Grenada	26	117	55.59	2	64.39	71.47	33.89
Bahamas	27	118	55.51	27	51.26	84.93	32.01
Samoa	28	134	52.98	-2	53.14	73.30	35.02
St. Vincent and the Grenadines	29	138	52.19	3	59.26	70.74	31.62
Papua New Guinea	30	140	51.94	-24	56.24	42.01	56.89
St. Kitts and Nevis	31	141	51.88	20	60.80	82.16	20.37
Vanuatu	32	148	50.70	-9	63.69	62.32	31.02
Tonga	33	149	50.52	2	59.38	71.85	25.85
Maldives	34	151	50.19	-13	62.25	70.25	21.90

Island Country	Globalization Index				Economic globalization	Social globalization	Political globalization
	Island country ranking	World ranking	Score	Change in World ranking 2015-16			
Madagascar	35	152	50.03	1	49.42	38.26	62.40
Micronesia	36	157	47.73	-4	72.25	66,45	14.14
Timor-Leste	37	162	47.50	-37	56.27	52.41	35.74
Kiribati	38	167	46.57	-2	69.24	61.77	15.43
Palau	39	168	46.35	-19	57.52	80.00	12.61
Haiti	40	169	46.24	-19	49.22	41.37	48.30
Marshall Islands	41	173	45.53	-17	66.33	72.84	13.29
Solomon Islands	42	178	44.60	-1	52.20	53.01	31.25
São Tomé and Príncipe	43	184	41.99	21	49.78	54.32	24.38
Comoros	44	193	36.91	-14	29.55	45.21	35.03

Globalization is often defined by its characteristics, including an increased connectedness and pace of change, and declining social and ecological diversity (Young et al., 2006). The main features of globalization are the liberalization of trade and capital flows, the increasing international reach of production, the development of communications technology, increasing importance on trans- or multinational corporations, and the increasing intensity of competition between countries and companies (Read, 2004). The consequences of globalization can be both a tremendous boon to island development or a threat that needs to be resisted. Of course, the reality is that the outcomes are more nuanced than either of these extremes. In some cases, exposure to external influences and technologies opens up new opportunities for islanders. In other cases, it creates greater dependencies on the outside world and therefore greater vulnerabilities for the island (Lauer et al., 2013). As is the case with FDI, the least developed countries are also those less able to cope with the negative outcomes of globalization (Read, 2004). While their small size and underdeveloped governance structures may make islands susceptible to the negative outcomes of globalization, the fact that they have a long established tradition of openness in trade and human mobility means that they may already have established policies and practices to allow them to be more resilient to globalization. Table 1.10 provides a perspective on the degree of economic, social, and political globalization associated with many of the world's island states. This index, prepared by KOF Swiss Economic Institute, measures the degree of openness of jurisdictions across three dimensions: economic (e.g., extent of cross-border trade), social (e.g., access to the internet), and political (e.g., number of embassies and membership in international organizations). It shows that the most global islands are those in the developed world.

The stereotype of innovation is one that is associated with the production of products. However, innovation comes in many forms, including types of governance (e.g., regulatory and institutional policies and practices) and cultural processes, such as the educational system (Kelman, Burns, & des Johansson, 2015). One of the more common recent narratives suggests that small islands are indeed economically and politically nimble and flexible (Baldacchino, 2010, 2015; Baldacchino & Bertram, 2009; Baldacchino & Milne, 2000; McSorley & McElroy, 2007). One of the challenges for many SIDS is that innovation is so dependent on foreign sources of capital and is so narrowly concentrated in sectors such as tourism that it is difficult to find innovation in small and medium-sized enterprises outside of tourism. Despite the need for innovation in such areas as renewable energy and agricultural practices, many small islands continue to subsidize inefficient and expensive fossil fuels (Read, 2010). In regions such as the Caribbean, evidence shows that there is the potential for creative financing and innovation (Taylor, 2016). Unfortunately, the standard measures of innovation as in Table 1.11 are often not available or do not reflect this innovation. For example, only 17 of the 41 island states used in this analysis are represented in the data in this Table.

TABLE 1.11: **Global Innovation Index, 2019**

Island Country	Global Innovation Index				Innovation output Sub-Index		Innovation Input Sub-Index		Efficiency Ratio (2019)	
	Island Country Ranking	World Ranking	Score	Change in World Ranking, 2018-2019	World Ranking	Score	World Ranking	Score	World ranking	Score
United Kingdom	1	5	61.30	-1	4	54.40	6	68.20	21	0.80
Singapore	2	8	58.4	-3	15	44.60	1	72.20	63	0.61
Ireland	3	12	56.10	-2	10	50.10	20	62.10	13	0.81
Japan	4	15	54.70	-2	17	44.30	14	65.00	44	0.70
Iceland	5	20	51.50	3	18	44.0	22	59.10	23	0.80
New Zealand	6	25	49.60	-3	32	36.00	18	63.10	59	0.60
Malta	7	27	49.0	-1	20	43.40	32	54.60	7	0.80
Cyprus	8	28	48.30	1	23	41.10	28	55.50	18	0.80
Philippines	9	54	36.20	19	42	30.70	76	41.70	62	0.61
Brunei Darussalam	10	71	32.30	-4	120	13.00	35	51.70	124	0.31
Bahrain	11	78	31.10	-6	87	19.30	69	42.90	84	0.60
Jamaica	12	81	30.80	3	69	22.10	84	39.50	80	0.60
Mauritius	13	82	30.60	-7	96	18.00	67	43.30	105	0.50
Indonesia	14	85	29.7	-	78	20.80	87	38.60	66	0.61
Dominican Republic	15	87	28.60	-	88	19.2	90	37.90	71	0.60
Sri Lanka	16	89	28.50	-1	77	20.80	94	36.10	78	0.60
Madagascar	17	121	22.40	-10	109	15.50	122	29.30	40	0.70

TABLE 1.12: Imports and Exports of Goods and Services (% of GDP) in 2010, 2017

Continent	Island Country	2010 Imports %	2010 Exports %	2017 Imports %	2017 Exports %
Asia	Japan	13.58	15.04	16.84	–
	Singapore	171.69	198.00	146.41	171.42
	Indonesia	22.40	24.30	19.17	20.19
	Timor-Leste	50.68	100.23	59.92	61.09
	Brunei Darussalam	27.96	67.41	35.60	49.57
	Philippines	36.62	34.80	40.87	31.02
	Sri Lanka	26.81	19.55	28.86	21.68
	Maldives	65.42	77.56	74.07	70.08
	Bahrain	50.94	69.54	67.39	75.44
Europe	Cyprus	58.72	50.38	73.39	73.02
	Iceland	42.11	51.98	42.02	46.10
	United Kingdom	30.27	28.28	31.58	30.37
	Ireland	86.40	103.02	98.96	121.04
	Malta	154.17	153.26	128.55	149.77
Africa	Cape Verde	61.77	32.67	67.38	45.92
	Madagascar	36.00	21.87	34.44	30.90
	Seychelles	108.08	93.80	102.14	89.89
	Mauritius	62.22	51.24	55.14	42.45
	Comoros	29.91	9.64	28.26	11.90
	São Tomé and Príncipe	–	–	–	–
Oceania	New Zealand	27.97	30.26	26.68	27.57
	Papua New Guinea	–	–	–	–
	Solomon Islands	81.16	49.33	–	–
	Vanuatu	52.74	46.63	–	–
	Fiji	63.89	57.84	–	–
	Tonga	60.25	12.41	70.31	23.62
	Samoa	52.16	28.43	46.96	31.51
	Palau	76.75	50.30	77.35	50.02
	Kiribati	78.44	13.07	92.01	13.22
Caribbean/	Haiti	–	–	–	–
Americas	Dominican Republic	33.32	22.68	26.54	23.68
	Jamaica	49.59	31.34	48.88	34.66
	Bahamas, The	43.72	34.95	41.15	34.50

Continent	Island Country	2010 Imports %	2010 Exports %	2017 Imports %	2017 Exports %
	St. Kitts and Nevis	48.32	27.91	60.75	54.37
	Antigua and Barbuda	59.10	45.60	–	–
	St. Vincent and the Grenadines	57.13	26.89	54.75	34.92
	St. Lucia	56.28	43.52	–	–
	Grenada	49.23	23.83	53.13	51.31
	Barbados	49.45	46.46	40.63	42.09
	Trinidad and Tobago	31.10	54.67	50.67 (2016)	48.14 (2016)
	Dominica	51.66	36.41	64.57	43.39

Anyone who has studied the economies of small islands knows that they are exceptionally open and connected to the rest of the world, not only by the trade in goods, but also by the trade in services and the mobility of islanders. Table 1.12 shows that the value of both imports and exports constitutes a large proportion of the Gross Domestic Products of many of the island states in this list. Table 1.13 sums the share of imports and exports as a proportion of GDP. In the case of small islands in the developed world, such as Singapore, Malta, and Ireland, the value of imports and exports exceeds their total GDP. The larger islands in the developed world, such as Japan and the United Kingdom, still have extensive international trade. However, the comprehensive supply and demand linkages and domestic multipliers within these islands means international trade is still a relatively small share of total GDP. Unfortunately, higher levels of specialization associated with small islands prompts higher imports and exports, and may create terms of trade problems for many SIDS (Santos-Paulino, 2010). Trade liberalization policies put in place by supranational institutional actors such as the World Trade Organization (WTO) tend not to favour small island nations that are rarely able to influence price and supply (Kelsey, 2004-05). Tourism may appear to generate a surplus of service imports, particularly in the transportation sector. Unfortunately, because of the absence of fully developed supply linkages and the small scale of islands, much of the income generated by tourism does not remain within the small island economies (Pratt, 2015). This exaggerated reliance on any one sector, such as tourism, also results in what has been referred to as the 'Dutch disease' or 'resource curse' for some small island economies, wherein capital that flows to one sector makes it difficult for other sectors to generate their own investment capital, hindering their development and potential to export (Ross, 1999).

TABLE 1.13: **Trade (% of GDP) in 2010, 2017**

Continent	Island Country	2010	2017
Asia	Japan	28.62	–
	Singapore	369.69	317.83
	Indonesia	46.70	39.36
	Timor-Leste	150.91	121.01
	Brunei Darussalam	95.37	85.17
	Philippines	71.42	71.89
	Sri Lanka	46.36	50.54
	Maldives	142.98	144.15
	Bahrain	120.48	142.83
Europe	Cyprus	109.10	146.41
	Iceland	94.09	88.12
	United Kingdom	58.55	61.95
	Ireland	189.42	220.00
	Malta	307.43	278.32
Africa	Cape Verde	94.44	113.3
	Madagascar	57.87	65.34
	Seychelles	201.88	192.03
	Mauritius	113.46	97.59
	Comoros	39.55	40.16
	São Tomé and Príncipe	–	–
Oceania	New Zealand	58.23	54.25
	Papua New Guinea	–	–
	Solomon Islands	130.49	–
	Vanuatu	99.37	–
	Fiji	121.73	–
	Tonga	72.66	93.93
	Samoa	80.59	78.47
	Palau	127.05	127.37
	Kiribati	91.51	105.23
Caribbean/	Haiti	–	–
Americas	Dominican Republic	56.00	50.22
	Jamaica	80.93	83.54
	Bahamas, The	78.67	75.65
	St. Kitts and Nevis	76.23	115.12

Continent	Island Country	2010	2017
	Antigua and Barbuda	104.70	
	St. Vincent and the Grenadines	84.02	89.67
	St. Lucia	99.80	
	Grenada	73.06	104.44
	Barbados	95.91	82.72
	Trinidad and Tobago	85.77	98.81
	Dominica	88.07	107.96

SECTION 2: SUBNATIONAL ISLAND JURISDICTIONS

The 2018 Islands Economic Cooperation Forum Annual Report articulated the importance of subnational island jurisdictions (or SNIJs). Although these political entities may not always receive the same level of international attention as island states, they are still the homes for many of the 600 million worldwide islanders and are critically important to island issues. This statistical review focuses on only 13 of these semi-autonomous islands, as listed in Table 1.14, but a larger inventory and richer description of the kinds of SNIJs, and the relationships they have with their metropoles, can be found in the work by Stuart (2009), Watts (2009), and Warrington and Milne (2018). Some of them, such as Hawai'i (US), Tasmania (Australia), Hainan (China), Gotland (Sweden), and Jeju (S. Korea), are tightly integrated as provinces or states (or sub-states/provinces) within a larger national government. Others have a fairly high degree of economic and political autonomy, sometimes acting like quasi-independent states. Examples include the Falklands and British Virgin Islands (UK), Réunion and French Polynesia (France), Aruba and Curaçao (Netherlands), and Guam and Puerto Rico (US). One of the intriguing features of many of these territories is that, despite the developmental pathways prescribed for them by the United Nation's Decolonization Committee, the people living in many of these semi-autonomous islands have little desire to seek political independence and do not see that as an ultimate development goal. This sentiment is reflected in the outcomes of many referenda where SNIJ voters have consistently rejected political independence.

In the last Report, the point was made that there was a wide range in the populations of these SNIJs. If they were independent states, some of them, such as Java at 141 million, would be among the most populated countries in the world. At the other extreme, Gotland and Greenland have barely more than 50,000 people each. Perhaps more important than their absolute populations is their share of the total population of the countries to which they are affiliated. For example, Java's population constitutes more than half of the total population of Indonesia, and Luzon's population is almost 60% of the Philippines population. In almost all other islands on this list, such as on Prince Edward Island, Gotland, Phuket, Jeju, and Hawai'i, their share of their country's population is quite low. Although this list would include Hainan, at just under 0.7% of China's population, this southern island of China is still one of the most populated islands in the world at 9.4 million people. Research by Guan and McElroy (2012) suggests that the semi-autonomous political status of SNIJs represents a causal variable in explaining population growth, partly because these places are more likely to be involved in labour-intensive light manufacturing and international services such as tourism and offshore finance.

TABLE 1.14: **Area of island, in km² (Subnational)**

Bali, Indonesia	5,780
Gotland, Sweden	3,184
Greenland, Denmark	2,166,086
Hainan Island, China	35,354
Hawai'i, USA	28,311
Java, Indonesia	138,794
Jeju, South Korea	1,826
Luzon, Philippines	104,688
Okinawa, Japan	2,281
Phuket, Thailand	576
Prince Edward Island, Canada	5,660
Taiwan, China	36,197
Tasmania, Australia	68,401

TABLE 1.15: **Most Recent Population Characteristics (Subnational islands)**

	Year	Population	Population Density people/km²	Population Growth Rate % over 1 year
Bali, Indonesia	2015	4,153,000	718	1.21 (2016)
Gotland, Sweden	2018	59,249	18.9	1.07
Greenland, Denmark	2018	56,025	0.00	-0.30
Hainan Island, China	2018	9,340,000	272	1.17
Hawai'i, USA	2019	1,415,872	50.57	-0.30
Java, Indonesia	2015	141,300,000	1,136	1.01
Jeju, South Korea	2016	661,190	357.6	3.02
Luzon, Philippines	2015	11,218,177	480	1.95
Okinawa, Japan	2015	1,434,138	1,206.20	3.00
Phuket, Thailand	2019	540,200	994.8	0.31
Prince Edward Island, Canada	2019	157,901	25.1	2.20
Taiwan, China	2019	23,773,876	671	0.20
Tasmania, Australia	2019	528,201	7.24	0.29

TABLE 1.16: **Birth and Death Rates, various dates (Subnational islands)**

	Year	Crude Birth x 1,000 people	Crude Death x 1,000 people	Fertility Rate x 1,000 people	
Bali, Indonesia	2012	–	–	2.30	
Gotland, Sweden	2017	12.00	9.00	1.90	(Sweden)
Greenland, Denmark	2017	15.00	9.00	2.10	
Hainan Island, China	2017	14.73	6.01	1.50	
Hawai'i, USA	2016	12.60	7.70	1.97	
Java, Indonesia	2014	17.04	6.34	2.18	(Indonesia)
Jeju, South Korea	2013	9.10	5.70	1.43	
Luzon, Philippines	2015	21.30	5.50	2.60	
Okinawa, Japan	2013	–	7.74	1.94	
Phuket, Thailand	2012	25.18	4.71	–	
Prince Edward Island, Canada	2019	8.60	8.70	1.63	
Taiwan, China	2019	–	–	1.11	
Tasmania, Australia	2016	12.00	8.90	1.90	

In most of the developed world, one of the most pressing development issues has been the aging of the population. This may adversely affect a place's economy if there are not enough workers to fill the available jobs. It may also cost more to provide certain public services, and particularly health services, if an insufficient tax base is being generated to meet the public service needs of an older population. As reflected in the difference between the crude birth and death rates (Table 1.16), only Tasmania, Gotland, and Prince Edward Island appear to be close to negative natural population growth. It is therefore not surprising that these are the jurisdictions that are engaged in aggressive recruitment campaigns to attract economic migrants: those who bring with them capital or entrepreneurial skills that can be employed in their new island homes. In places that are experiencing rapid increases in population, migration may serve as a safety valve to ensure that local labour supply does not significantly exceed labour demand. This is the case in the Philippines, where explicit policies have been put in place to train many more nurses than could ever find jobs at home (Brush, 2010). However, they are in considerable demand in the developed world and their employment internationally results in significant remittances being returned to benefit individual Filipino families and assist in local-level development. For many of the Pacific islands in particular, migration also reduces the pressure on local land resources (Curtain & Dornan, 2019).

TABLE 1.17: **Life Expectancy, by Gender (Subnational islands)**

	Year	Life Expectancy (females, in years)	Life Expectancy (males, in years)	
Bali, Indonesia	–	–	–	
Gotland, Sweden	2016	83.1	79.90	
Greenland, Denmark	2018	75.8	70.20	
Hainan Island, China	2010	80.01	73.20	
Hawai'i, USA	2014	84.72	78.00	
Java, Indonesia	–	–	–	
Jeju, South Korea	–	–	–	
Luzon, Philippines	2010	75.4	68.70	
Okinawa, Japan	2016	87.02	79.40	
Phuket, Thailand	2016	79	72.00	(Thailand)
Prince Edward Island, Canada	2017	83.8	80.00	
Taiwan, China	2018	83.7	77.20	
Tasmania, Australia	2015	82.5	78.80	

Average life expectancies among the SNIJs that are part of this analysis are quite high, ranging from 75.4 (females)/68.7 (males) on Luzon to 87.02 (females)/79.4 (males) on Okinawa. This is indicative of a larger phenomenon. Although the precise causes are still unclear, life expectancies on semi-autonomous islands tend to be higher than on independent island states (Bertram, 2015; McElroy & Parry, 2012). This may not be surprising when you consider the dynamics of the relationships between some of these semi-autonomous islands and their metropoles. For example, the citizens of Greenland (also referred to as Kalaallit Nunaat in Greenlandic Inuit), are entitled to receive specialist healthcare services in its metropole of Denmark, settle in Denmark, and attend Danish universities (Grydehøj, 2018).

TABLE 1.18: Rural and Urban Share of Population (Subnational islands)

	Year	Rural Population %	Urban Population %	
Bali, Indonesia	2019	4.9	95.1	
Gotland, Sweden	2016	59	41	
Greenland, Denmark	2018	13	87	
Hainan Island, China	2010	50.3	49.7	
Hawai'i, USA	2014	8.1	91.9	
Java, Indonesia	2018	45.0	55.0	(Indonesia)
Jeju, South Korea	2016	5	95	
Luzon, Philippines	2010	54.7	45.3	(Philippines)
Okinawa, Japan	2016	20	80	
Phuket, Thailand	2017	82	18	
Prince Edward Island, Canada	2016	60	40	
Taiwan, China	2020	21	79	
Tasmania, Australia	2008	20	80	

As is the case with most other characteristics, the degree of urbanization of small islands can vary considerably. For example, Singapore and Nauru are completely urban while Trinidad and Tobago and Papua New Guinea are among the least urban jurisdictions in the world (Sietchiping & Kago, 2017). In Table 1.18, both Bali and Jeju are 95% urban. As is the case on mainland regions, rapid urbanization has taken place on small islands over the past fifty years with some of the highest levels of urbanization on Pacific islands (Das, 2018). However, unlike most mainlands, the geography of islands may make urbanization more problematic. The available space for urban functions on many islands is limited, making the conflicts among these various uses even more intense (Fernandes & Pinho, 2015; Grydehøj, 2015). Since historical urban development has usually taken place along the coasts, competition for available land may be even more extreme in these areas. Another general pattern is that the level of urbanization tends to be higher on the central or main islands of archipelagos than on the more remote islands, with a nested pattern of inter-island mobility that involves outmigration from these outlying islands to the more centrally linked and urban islands (Connell, 2018).

TABLE 1.19: **Labour Force Characteristics, various dates (Subnational)**

	Year	Labour Force	Labour Force Participation Rate %	Unemployment Rate %
Bali, Indonesia	–	–	–	–
Gotland, Sweden	2016	27,000	47.00	6.4
Greenland, Denmark	2015	26,840	74.06	9.10
Hainan Island, China	2016	5,581,400	61.00	2.3 (2017)
Hawai'i, USA	2019	663,800	97.00	2.80
Java, Indonesia	–	–	–	–
Jeju, South Korea	2016	–	67.00	–
Luzon, Philippines	2015	–	–	–
Okinawa, Japan	2010	650,307	89.00	5.10
Phuket, Thailand	2013	167,883	–	0.50
Prince Edward Island, Canada	2018	83,900	66.80	9.40
Taiwan, China	2019	11,516,000	59.25	3.73
Tasmania, Australia	2019	268,000	61.00	6.70

Labour force participation rates vary considerably across these subnational island jurisdictions (see Table 1.19), at least in part because of the difficulty in arriving at a standard, comparable definition of this economic indicator. A similar challenge exists for unemployment rates. In general, unemployment rates tend to be lower on SNIJs than on small island states, although the differences are not statistically significant (McElroy & Parry, 2012). At the same time, unemployment rates tend to be higher and other economic measures associated with poverty tend to be more severe on island territories or jurisdictions than is the case on other non-island jurisdictions of the larger metropoles. For example, the unemployment rate on Prince Edward Island (PEI) in 2015 was 10.5% compared to the Canadian average of 6.9% and these differences have been fairly consistent over time (Nonaka, 2016). Youth unemployment rates tend to be much higher than the general unemployment rates and in tourism-dependent islands, seasonal unemployment rates can be even higher (Lee, Hampton, & Jeyacheya, 2015).

TABLE 1.20: **Gross Domestic Product, various dates (Subnational)**

	Year	Gross Domestic Product (GDP) in USD	GDP per capita in USD
Bali, Indonesia	2010	4,534,150,000	1,170
Gotland, Sweden	2016	2,316,320,000	39,907
Greenland, Denmark	2016	2,710,000,000	48,182
Hainan Island, China	2017	64,134,000,000	6,960
Hawai'i, USA	2016	73,252,000,000	51,277
Java, Indonesia	2010	310,473,486,174	1,127
Jeju, South Korea	2013	10,990,000,000	38,000
Luzon, Philippines	2012	154,051,608	2,227
Okinawa, Japan	2011	36,694,000,000	26,192
Phuket, Thailand	2009	1,982,380,000	5,901
Prince Edward Island, Canada	2018	6,994,000,000	41,111
Taiwan, China	2018	590,000,000,000	25,008
Tasmania, Australia	2019	31,820,000,000	59,863

Earlier in this chapter, it was noted that some Small Island Developing States (SIDS) have among the highest GDP per capita values in the world, even if these values may be quite volatile over time. Table 1.20 shows the absolute value of production on these select SNIJs as well as the average GDP per capita (in USD). Although this Table does not show the comparable values for island states, the literature shows that SNIJs tend to have even higher levels of GDP per capita than their counterpart SIDS, at least in part because of the role of offshore finance and tourism (McElroy & Parry, 2012). This may explain why the citizens of SNIJs are often reluctant to seek independence (Dunn, 2011). However, because the economies are often so specialized, the result is that linkages to the development of other sectors in the economy are weak, there are spatial and social inequities, and even these leading sectors remain vulnerable to global economic shocks and extreme weather events (Taylor, 2012).

SOURCES AND NOTES FOR TABLES AND FIGURES

Table 1.1:
Population and Population Growth rates are from the CIA World Factbook; Population density is from the World Bank (data.world- bank.org/indicator/en.PoP.dnst). A dashed line in a cell (-) indicates missing values.

Table 1.2:
From the CIA World Factbook, various links (www.cia.gov/library/publications/the-world-factbook). No information was available for Niue.

Table 1.3:
From the CIA World Factbook.

Figure 1.1:
Averages based on the data provided in Table 1.3.

Table 1.4:
From the CIA World Factbook (www.cia.gov/library/publications/the-world-factbook/rankorder/2001rank.html) and the World Bank (data.worldbank.org/indicator/nY.GdP.mKtP.cd).

Table 1.5:
From the World Bank.

Table 1.6:
Data on the labour force and the labour force participation rate are from the World Bank. The unemployment rates are from the CIA World Factbook. Values listed may not necessarily correspond to the data from these sources because the latter are updated when new information is available.
Data for the Cook Islands is from the Ministry of Finance & Economic Management, Government of the Cook Islands, 'Economic Activity and Labour Force 2015' (www.mfem.gov.ck/statistics/census-and-surveys/economic-activity-and-labour-force).

Table 1.7:
From the United Nations Development Program (UNDP)
(http://www.hdr.undp.org/sites/default/files/2018_human_development_statistical_update.pdf).

Table 1.8:
From the World Bank. Blank cells indicate that the values have not been updated since 2015.

Figure 1.2:
From the Development Research Group, World Bank (data.worldbank.org/indicator/si.PoV.Gini).

Table 1.9:
From the World Investment Report 2018, United Nations Conference on Trade and Development (UNCTAD)
(https://unctad.org/en/PublicationsLibrary/wir2018_en.pdf).

Table 1.10:
From the KOF Swiss Federal Institute of Technology in Zurich (globalization.kof.ethz.ch).

Table 1.11:
From the World Intellectual Property Organization (WIPO) (www.wipo.int/edocs/pubdocs/en/wipo_pub_gii_2017-annex1.pdf).
For the 2018 source material, see https://www.globalinnovationindex.org/analysis-indicator.

Table 1.12:
From the trade stats section under 'development' in the World Bank's World Integrated Data Solutions (WITS) database.
For 2010 and 2016 imports, see:
https://wits.worldbank.org/CountryProfile/en/country/bycountry/startyear/LTST/endyear/LTST/indicator/NE-IMP-GNFS-ZS.
For exports, see: https://wits.worldbank.org/CountryProfile/en/country/bycountry/startyear/LTST/endyear/LTST/indicator/NE-EXP-GNFS-ZS.

Table 1.13:
From the trade stats section under 'development' in the World Bank's World Integrated Data Solutions (WITS) database.
For 2010 and 2016 trade as % of GDP, see: https://wits.worldbank.org/CountryProfile/en/country/by-country/startyear/LTST/endyear/LTST/indicator/NE-TRD-GNFS-ZS

Table 1.14:
From individual pages in Wikipedia.

Table 1.15:
Population data for Bali and Jeju are from www.knoema.com. Other Subnational Island Jurisdictions' (SNIJ) data are from the following sources:
Gotland: www.gotland.se/86116 and www.citypopulation.de/php/sweden-gotland.php?adm2id=0980;
Greenland: data.world-bank.org/ and tradingeconomics.com/greenland/population-density-people-per-sq-km-wb-data.html;
Hainan*:* www.statista.com/statistics/279013/population-in-china-by-region;
Hawai'i: census.hawaii.gov/home/population-esti-mate/; Java: citypopulation.de/indonesia-mU.html; Luzon: psa.gov.ph/;
Okinawa: www.knoema.com and www.japanupdate.com/2016/03/okinawa-population-grows-at-highest-rate-in-nation;
Phuket: www.citypopulation.de/php/thailand-prov-admin.php?adm2id=83;
Prince Edward Island: www.princeedwardisland.ca/sites/default/files/publications/web_asr.pdf. For the Prince Edward Island Population Report 2018, see https://www.princeedwardisland.ca/sites/default/files/publications/pt_pop_rep_1.pdf;
Taiwan: www.worldometers.info/world-population/taiwan-population;
Tasmania: stat.abs.gov.au/itt/r.jsp?databyregion and www.popula-tion.net.au/population-of-tasmania.

Table 1.16:
Data on this table for Bali, Jeju, Hainan, Luzon, Okinawa, and Phuket are from www.knoema.com.
Data for Gotland and Greenland are from the World Bank. Other SNIJ data are from the following sources:
Hawai'i: health.hawaii.gov/vitalstatistics/preliminary- 2016; Java: factsanddetails.com/indonesia/People_and_life/sub6_2a/entry-3972.html; Prince Edward Island: www.statcan.gc.ca/pub/84f0210x/2009000/t005-eng.htm;
Taiwan: www.worldometers.com; Tasmania: http://www.justice.tas.gov.au/bdm/about_us/life_event_statistics.
Fertility rates for Gotland and Java are at the country level.

Table 1.17:
Data on this table are from the following sources: Gotland: www.gotland.se/86116; Greenland: the CIA World Factbook;
Hainan: www.stats.hainan.gov.cn/2017nj/indexeh.htm; Hawai'i: www.worldlifeexpectancy.com/usa/hawaii-life-expectancy;
Luzon: www.knoema.com; Okinawa: stats-japan.com/t/tdfk/okinawa; Phuket: www.who.int/countries/tha/en;
Prince Edward Island: www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/health26-eng.htm;
Taiwan: www.indexmundi.com/taiwan/life_ex- pectancy_at_birth.html;
Tasmania: www.abs.gov.au/aUsstats/abs@.nsf/Previousproducts /3101.0feature%20article- 1jun%202016. Values for Phuket are for the country of Thailand as a whole.

Table 1.18:
Data on this table are from the following sources:
Bali: www.knoema.com; Gotland: www.citypopulation.de/php/sweden-got-land.php; Greenland: the World Bank;
Hainan: www.stats.hainan.gov.cn; Hawai'i: files.hawaii.gov/dbedt/census/census_2010/other/2010urban_rural_report.pdf;
Jeju: www.citypopulation.de; Luzon: psa.gov.ph/tags/urban-rural-classification; Okinawa: dc-office.org/basedata#p1;
Phuket: www.citypopulation.de/php/thai-land-prov-admin.php?adm2id=83;
Prince Edward Island: www.princeedwardisland.ca/sites/default/files/publications/web_asr.pdf; Taiwan: www.worldometers.info;
Tasmania: www.tasmaniatopten.com/lists/population_centres.php. Values for Luzon are for the Philippines as a whole.
Values for Java are for Indonesia as a whole.

Table 1.19:
Data on this table are from the following sources:
Gotland: www.gotland.se/86116; Greenland: /www.indexmundi.com/green land/labor_force.html;
Hainan: www.stats.hainan.gov.cn/2017nj/indexeh.htm and www.knoema.com; Hawai'i: health.hawaii.gov/vitalstatistics/preliminary-2016 and http://dbedt.hawaii.gov/economic/qser/labor-force for 2018 update;
Jeju: www.hiwi.org/gsipub/index.asp?docid=417; Okinawa: stats- japan.com/t/tdfk/okinawa; Phuket: www.knoema.com;
Prince Edward Island: https://www.princeedwardisland.ca/sites/default/files/publications/fin_statcan_labo.pdf;
Taiwan: tradingeconomics.com/taiwan/unemployment-rate; Tasmania: stat.abs.gov.au and www.knoema.com for 2015 data.

Table 1.20
Data for Bali, Gotland, Hainan, Java, Jeju, Luzon, Okinawa, Phuket, and Taiwan are from www.knoema.com.
Other SNIJ data are from the following sources: Greenland: tradingeconomics.com/greenland/gdp, for GDP Per Capita see https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=GL&name_desc=true;
Hawai'i: www.deptofnumbers.com/gdp/hawaii; Prince Edward Island: https://www.princeedwardisland.ca/sites/default/files/publications/sta_can_gdp_1.pdf; Tasmania: www.treasury.tas.gov.au/documents/state-accounts.pdf.

REFERENCES

Abdallah, S., Thompson, S., Michaelson, J., Marks, N., & Steuer, N. (2009). *The happy planet index 2.0: Why good lives don't have to cost the earth.* London, UK: The New Economic Foundation. Retrieved from http://www.happyplanetindex.org/learn/download-report.html

Baldacchino, G. (Ed.) (2015). *Entrepreneurship on small island states and territories.* New York: Routledge.

Baldacchino, G. (2010). *Island enclaves: Offshoring strategies, creative governance, and subnational island jurisdictions*. Montreal: McGill-Queen's University Press.

Baldacchino, G., & Bertram, G. (2009). The beak of the finch: Insights into the economic development of small economies. *The Round Table: Commonwealth Journal of International Affairs, 98*(401), 141-160.

Baldacchino, G., & Milne, D. (Eds.) (2000). *Lessons from the political economy of small islands: The resourcefulness of jurisdiction*. New York: St. Martin's and MacMillan Press.

Barrowclough, D. (2007). Foreign investment in tourism and small island developing states. *Tourism Economics, 13*(4), 615-638.

Bertram, G. (2015). Is independence good or bad for development in small island economies? A long-run analysis. *Region et Developpement, 42*(1), 31-54.

Bertram, G. (1999). The MIRAB model twelve years on. *The Contemporary Pacific, 11*(1), 105-138.

Blancard, S., & Hoarau, J.-F. (2013). A new sustainable human development indicator for small island developing states: A reappraisal from data envelopment analysis. *Economic Modelling, 30,* 623-635.

Brush, B.L. (2010). The potent lever of toil: Nursing development and exportation in the postcolonial Philippines. *American Journal of Public Health, 100*(9), 1572-1581.

Connell, J. (2018). Migration. In G. Baldacchino (Ed.). *The Routledge international handbook of island studies* (pp. 261-278). London and New York: Routledge.

Connell, J. (2015). The Pacific diaspora. In W.H. Khonje (Ed.). *Migration and development: Perspectives from small states* (pp. 244-264). London, UK: Commonwealth Secretariat.

Curtain, R., & Dornan, M. (2019). *A pressure release valve? Migration and climate change in Kiribati, Nauru and Tuvalu.* Canberra: Development Policy Centre, The Australian National University.

Das, A. (2018). Development and shelter challenges of small islands: Planning with a pro-poor perspective. *Journal of Architecture & Environment, 17*(2), 85-126.

Deere, C.D. (1990). *In the shadows of the sun: Caribbean development alternatives and US policy.* London, UK: Routledge.

Dunn, L. (2011). The impact of political dependence on small island jurisdictions. *World Development, 39*(12), 2132-2146.

Farbotko, C. (2010). Wishful sinking: Disappearing islands, climate refugees and cosmopolitan experimentation. *Asia Pacific Viewpoint, 51*(1), 47-60.

Feeny, S., Iamsiraroj, S., & McGillivray, M. (2014). Growth and foreign direct investment in the Pacific Island countries. *Economic Modelling, 37,* 332-339.

Fernandes, R., & Pinho, P. (2017). The distinctive nature of spatial development on small islands. *Progress in Planning, 112*, 1-18.

Grydehøj, A. (2018). Decolonising the economy in micropolities: Rents, government spending and infrastructure development in Kalaallit Nunaat (Greenland). *Small States & Territories, 1*(1), 69-94.

Grydehøj, A. (2015). Island city formation and urban island studies. *Area, 47*(4), 429-435.

Guan, J., & McElroy, J. (2012). The determinants of migration in small islands. *Shima: The International Journal of Research into Island Cultures, 7*(1), 80-95.

Hassall, G. (2019). Social equity in the Pacific Islands. In M. Johansen (Ed.). *Social equity in the Asia-Pacific region* (pp. 81-107). Cham, Switzerland: Palgrave Macmillan.

Kelman, I., Burns, T.R., & des Johansson, N.M. (2015). Islander innovation: A research and action agenda on local responses to global issues. *Journal of Marine and Island Cultures*, *4*(1), 34-41.

Kelsey, J. (2004-2005). World trade and small nations in the South Pacific region. *Kansas Journal of Law & Public Policy, 14*(2), 247-306.

Lauer, M., Albert, S., Aswani, S., Halpern, B.S., Campanella, L., & La Rose, D. (2013). Globalization, Pacific islands, and the paradox of resilience. *Global Environmental Change, 23*(1), 40-50.

Lee, D., Hampton, M., & Jeyacheya, J. (2015). The political economy of precarious work in the tourism industry in small island developing states. *Review of International Political Economy, 22*(1), 194-223.

Maharaj, D., & Lewis-Bynoe, D. (2016). A call to action: The Caribbean we want. In D. Lewis-Bynoe (Ed.). *Achieving a resilient future for small states: Caribbean 2050* (pp. 3-12). London, UK: Commonwealth Secretariat.

McElroy, J.L., & Parry, C.E. (2012). The long-term propensity for political affiliation in island microstates. *Commonwealth & Comparative Politics, 50*(4), 403-421.

McLean, S., & Charles, D. (2018). *Caribbean development report: A perusal of public debt in the Caribbean and its impact on economic growth.* Santiago: United Nations.

Minto-Coy, I., Elo, M., & Chrysostome, E. (2019). Transnational diaspora remittances and capacity building in developing and transition countries: A contextual analysis in Caribbean islands and central Asia. In E. Chrysostome (Ed.). *Capacity building in developing and emerging countries* (pp. 205-242). Cham, Switzerland: Springer.

Mochizuki, J., & Naqvi, A. (2019). Reflecting disaster risk in development indicators. *Sustainability, 11*(4), 996.

Nonaka, I. (2016). *Niche and off-island strategies for island business* [Unpublished master's thesis]. University of Prince Edward Island.

Pratt, S. (2015). The economic impact of tourism in SIDS. *Annals of Tourism Research, 52*, 148-160.

Randall, J.E. (Ed.) (2019). *The 21st Century Maritime Silk Road Islands Economic Cooperation Forum: Annual report on global islands 2018*. Charlottetown, PEI: Island Studies Press. Retrieved from http://projects.upei.ca/iis/files/2018/07/Annual-Report-2017-LR-April.pdf

Randall, J.E. (Ed.) (2018). *The 21st Century Maritime Silk Road Islands Economic Cooperation Forum: Annual report on global islands 2017.* Charlottetown, PEI: Island Studies Press. Retrieved from http://projects.upei.ca/unescochair/files/2019/11/Annual-Report-2018-Global-Islands-LR-2.pdf

Read, R. (2018). The determinants and growth effects of foreign direct investment in small economies. In L. Briguglio (Ed.). *Handbook of small states: Economic, social and environmental issues* (pp. 287-309). Oxon, UK: Routledge. Retrieved from https://doi. org/10.4324/9781351181846-15

Read, R. (2010). *Economic vulnerability and resilience in small island developing states*. Global Platform on Climate Change, Trade and Sustainable Energy. Geneva: International Centre for Trade and Sustainable Development. ICTSD Programme on Competitiveness and Sustainable Development, Issue paper No. 11.

Read, R. (2004). The implications of increasing globalization and regionalism for the economic growth of small island states. *World Development, 32*(2), 365-378.

Ross, M.L. (1999). The political economy of the resource curse. *World Politics, 51*(2), 297-322.

Santos-Paulino, A.U. (2010). Terms of trade shocks and the current account in small island developing states. *The Journal of Development Studies, 46*(5), 855-876.

Sietchiping, R., & Kago, J. (2017). The role of urban-rural linkages in enhancing sustainable urbanization in small islands states. In A. Mohammed & P. Polar (Eds.). *Sustainable urban development: The gap between rhetoric and reality* (pp. 45-59). Surinam: Caribbean Network for Urban and Land Management.

Solimano, A. (2018). International mobility of the wealthy in an age of growing inequality. *Norteamérica, Revista Académica del CISAN-UNAM,14*(1), 163-181.

Stuart, K. (2009). A listing of the world's sub-national island jurisdictions. In G. Baldacchino & D. Milne (Eds.). *The case for non-sovereignty: Lessons from sub-national island jurisdictions* (pp. 11-20). London, UK: Routledge.

Taylor, D. (2016). Financial sophistication of SIDS. In L. Smith, S. Fullerton-Cooper, E. Gordon, & A. Bodden (Eds.). *The Caribbean in a changing world: Surveying the past, mapping the future, Vol. 2* (pp. 149-168). Newcastle-upon-Tyne: Cambridge Scholars Publishing.

Taylor, D. (2012). Models of island development: A critical review of the Caribbean. Proceedings of the Caribbean Small Island Developing States conference, University of the Dutch Antilles, Curaçao, 7-9 March 2012. Retrieved from https://sidsgg.webs.com/conferenceproceedings.htm

Warrington, E., & Milne, D. (2018). Governance. In G. Baldacchino (Ed.). *The Routledge international handbook of island studies: A world of islands* (pp. 173-201). New York: Routledge.

Watts, R. (2009). Island jurisdictions in comparative constitutional perspective. In G. Baldacchino & D. Milne (Eds.). *The case for non-sovereignty: Lessons from sub-national island jurisdictions* (pp. 21-39). London, UK: Routledge.

Young, O.R., Berkhout, F., Gallopin, G.C., Janssen, M.A., Ostrom, E., & Van der Leeuw, S. (2006). The globalization of socio-ecological systems: An agenda for scientific research. *Global Environmental Change, 16*(3), 304-316.

Yusheng, K., Atuahene Agyapong, S., Bentum-Micah, G., & Konadu Aboagye, A. (2019). Impact of foreign direct investment inflows on economic growth in small island developing states (Seychelles). *Scholars Bulletin, 5*(5) 273-277.

PART II

Island tourism service development

Smiling Buddha of wealth on Koh Samui, Thailand.

2

Island tourism:

On the edge of an industry

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ABSTRACT

Most islands have sought some form of tourist development. Promoting tourism and finding markets has usually come from hotels, travel agents, and national and regional tourism bodies—all of which can be remote from local people. Ecotourism projects can often be excluded, and remote areas and islands disadvantaged. Resorts can alienate land, and occasionally marine, resources. Tourism generates employment, but not always for local people, and spawns a considerable informal sector. Linkages with agriculture are hard to generate on islands (hence much food is imported). Tourism projects may be sensitive to environmental management. Benefits depend on the nature of the islands (as independent states or peripheral places); social and economic status; scale and structure of

development (e.g., from backpackers and national parks to resorts and cruises); the willingness of tourists, tourism entrepreneurs, and government agencies to engage with local people (however defined); previous experience; and the ability of tourism to meet the need for sustainable development. Diverse outcomes are an inevitable consequence. Through synthesizing the existing literature on island tourism, focusing mainly on Asian and Pacific islands, this chapter examines this diversity and the variable outcomes for people and islands.

INTRODUCTION: PROFILING ISLAND DEVELOPMENT

Islands, small islands especially, value tourism—even if as a last resort—as a potentially valuable and growing source of foreign exchange and domestic capital that offers a positive image. Island tourism has grown since the global economic boom of the 1970s, and, in the past decade, through the arrival of China as a new and substantial source of domestic and international tourists, alongside the rapid expansion of cruise ship tourism (not discussed here). Pacific island economies include some of the most recent islands to have embraced tourism because of cost, distance from markets, and intervening opportunities—known to be structural and scalar disadvantages. Most islands have a comparative advantage in clean beaches, unpolluted seas, warm weather and water, and at least vestiges of distinct cultures. Cheaper airlines, higher incomes, and paid and longer vacations have now involved once distant and isolated islands. While simultaneously offering possibilities for economic diversification, tourism puts pressure on local communities and their resources, whether economic, environmental, or cultural. Conventional wisdom has long been that tourism offers economic benefits to local people, but alongside social costs. Yet such generalizations take little note of *which* tourists and *what* local people, and surprisingly few detailed studies provide valuable insights into the economic, environmental, and social effects of tourism and the role of local people in islands. This chapter seeks to offer an overview of tourism in islands, especially smaller tropical islands in the global south, as they participate at the edge of a global industry, with particular reference to employment, business development (and linkages), environmental change and its impacts, and local cultures.

LIVING ON THE EDGE?

Tourism is inherently uneven. In a host of islands, especially in the Caribbean, the Mediterranean, and off the coast of Asia, several islands have been overwhelmed by tourism numbers. Very small islands, such as Anguilla, St. Barts, Rapanui, and Pitcairn, seemingly bereft of any other economic activity, have tourist economies (Amoamo, 2011; McCall, 2008). Once considered remote, islands such as the Falklands, the Faroes, and Saint Helena have increasingly benefited from cruise tourism. A few have benefited from having a distinctive resource—such as whale shark viewing at Oslob, Cebu (Philippines; Lowe, 2019), a volcano in Tanna (Vanuatu), or rare birds (Fair Isle, Scotland)—which has provided a competitive edge. Some islands have had little to do with tourism, perhaps distant from conventional tourist circuits, without particular attractions—whether cultural or natural—and beset by intervening opportunities. Some isolated Pacific islands, like Niue, have literally and metaphorically failed to make the right connections, despite a quarter-century of endeavour (Connell, 2007). Most of the small island states where tourism is unimportant, such as São Tomé, the Comoros, Kiribati, and Tuvalu, are among the poorest of all developing countries.

At a different scale, impacts vary, even on small islands. In Fiji, tourism is concentrated in some islands, such as the Mamanuca and Yasawa islands, and the Coral Coast. Elsewhere, island people may lack the access, resources, and entrepreneurial skills to participate, and local initiatives fail because of lack of knowledge of their existence, inaccessibility, costs, and local conflict over returns. Many islands and their residents are simply bypassed by tourism. Tourists at the Komodo National Park on Komodo island (Indonesia), intent on seeing the famous'Komodo dragons', stay in nearby urban centres on other islands and hire boats to visit Komodo. None stay overnight in the lone village (though about 5,000 tourists a year pass through) and few spend money there. A handful of

AT A DIFFERENT SCALE, impacts vary, even on small islands. Many islands and their tourism are simply bypassed by tourism.

Tourists visiting Komodo National Park to see the 'Komodo dragons' choose to stay in nearby urban centres; none stay near the Park.

carvers and boat crew are the only village beneficiaries; the village remains dependent on fisheries, despite the Park's 20-year presence. Villagers were without the relevant skills, knowledge, or training opportunities to compete with vested interests elsewhere (Hitchcock, 1993; Lasso & Dahles, 2018; Walpole & Goodwin, 2000).

On less remote islands, tourist numbers and their impacts usually increase over time; some local people benefit while others become alienated by the experience; and parts of the tourist economy may pass out of local hands. The initial gains from small-scale tourism become outweighed by the economic, environmental, and social costs of what increasingly becomes mass tourism and the marginalization of those once at the core of the industry, but few longitudinal studies of tourism demonstrate clear relationships. Kuta, in Bali, in the 1960s a small village destination for backpackers and surfers on the Asian overland trail, evolved to become all things to everyone, by constantly linking into new tourist niches (from raves and honeymoons to whitewater rafting and camel safaris) that accommodated the needs and whims of all kinds of tourists: it became 'whatever you want it to be' (Connell, 1993b). Through these changes, local people played a declining economic role, as more distant Javanese and international interests constructed hotels and other facilities, and secured employment. Agricultural land was absorbed into the tourist industry as Balinese were displaced, and visual culture took on a variety of transformations, simultaneously being diminished, transformed, reinvented, and globalized for the tourist gaze. As Kuta changed, other parts of Bali responded quite differently; some specialized in particular tourist artefacts, including Australian didjeridus for a European market (Gibson & Connell, 2005), while Nusa Dua became an enclave of expensive, elegant hotels. Across one island the form and impact of tourism varied enormously as people adopted mixed responses to tourism and tourists, according to their perceptions, needs, abilities, location and resources, and the desires of governments, tourists, and tourist companies. Kuta and Bali thus went through diverse tourist cycles; the transitions showed that the impact of tourism was more complex than any simple model can address, and that the agencies of tourists and local people, and of governments and distant entrepreneurs, play a crucial role in outcomes. Consequently, even in islands dominated by tourism, village benefits may be few. In Nusa Dua (Bali), and Denarau and the Coral Coast of Fiji, where tourist developments are increasingly likely to be within enclaves, hotels are part of international chains, and tourists have limited contact with the world beyond the resort perimeter, incomes from employment are the principal gain from tourism. Retention of a substantial proportion of tourist expenditure is minimized.

KUTA AND BALI WENT through diverse tourist cycles, the transitions showed that the impact of tourism was more complex than any simple model can address, and that the agencies of tourists and local people, and of governments and distant entrepreneurs, play a crucial role in outcomes.

This luxury tourist villa in Bali can accommodate the whims of all kinds of tourists.

TOURISM AS TRANSFORMATION

Where tourism is substantial, it has had a significant influence on economic relationships, social change is considerable, and cultures and environments have been transformed. The following sections examine development and change in these contexts.

Employment

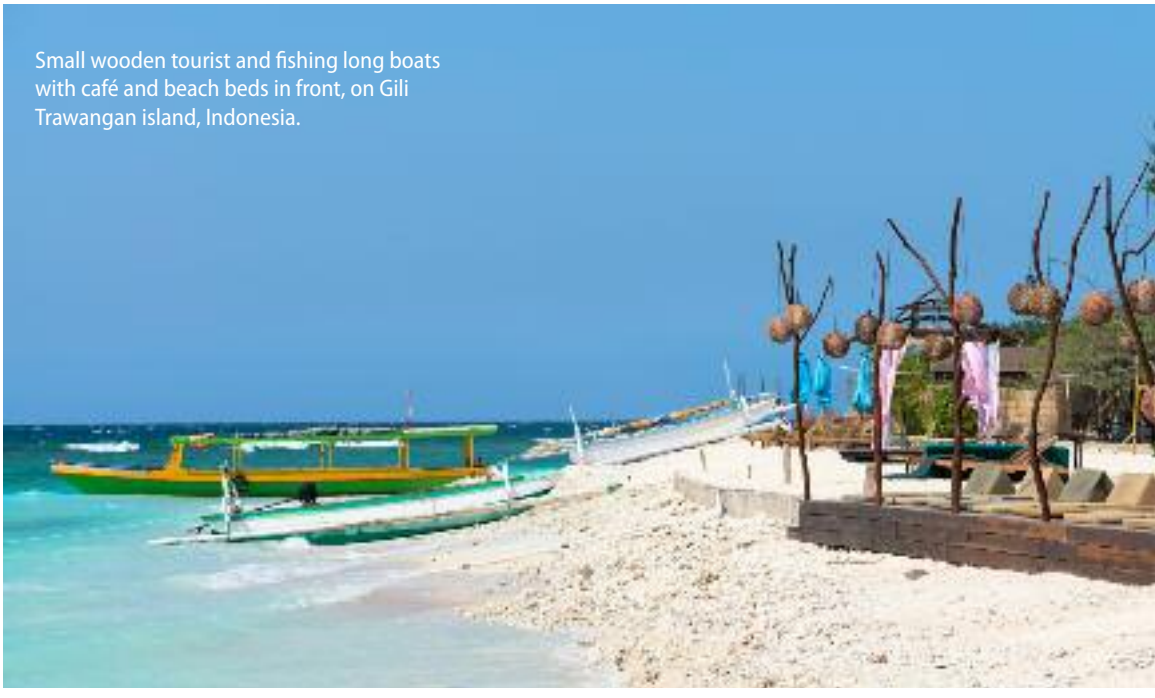
Most tourism employment does not require high education levels, and is labour-intensive, creating many jobs (though few are well-paid, with promotion prospects), many taken by migrant workers, but also by women (where alternative wage labour may be scarce), and generates activity in other sectors of the economy (especially in services such as construction, stores, and transport). Trends towards luxury resorts have increased the labour-intensive element, though managerial staff are often expatriates (Shakeela et al., 2011). On many islands, large proportions of the workforce are dependent directly or indirectly on tourism.

Much employment in the tourist industry is in the informal sector. Some informal-sector workers, those without regular hours and wages who are often elsewhere marginalized, may have higher status because of their need for special skills, such as English-language ability. A characteristic of the tourist industry is the remarkable ease of entry, but also intense competition, especially for such informal-sector activities as food and drink vending, kiosks, guides, bicycle rental, and prostitution. On Gili Trawangan

(Lombok, Indonesia), local islanders were pioneers in meeting new demands for tourist facilities, starting home-stays, food stalls, and transport, and hiring out snorkel gear, motorcycles, and mountain bikes (Kamsma & Bras, 2000). Outsiders often displace local people, especially vendors, rather than work alongside them, a situation also true for accommodation and land ownership, producing resentment and tension. Over time, restrictions are often placed on informal-sector workers, reducing their income-earning ability, as the informal sector becomes seen as the antithesis of up-market tourism or its workers considered to harass tourists. Informal-sector workers were banned from the planned resort areas of Nusa Dua on Bali (Bras & Dahles, 1998; Dahles, 2000). In Koh Samui (Thailand), relatively poor villagers, who were never large landowners or engaged in commerce, participate at best in the tourist industry as wage labourers or informal producers and sellers of food, but their livelihood was constantly under threat from numerous foreign-owned restaurants, bungalow owners who kept them away from guests, and village stores that offered similar goods (Williamson & Hirsch, 1996). The informal sector is constantly unwelcome by more powerful interests.

MANY TOURISM PROJECTS HIRE local workers, who may have claims to land ownership, or are familiar with local geography, culture, and management practices, but also because it is less costly. Sometimes, however, distant workers are preferred in the belief that they work harder than local people and are less involved in local social and domestic activities that disrupt continuous, formal employment.

Frequently, competition exists for good jobs. Especially where alternative income-earning opportunities are few, as on Beqa Island (Fiji), those who have tourism employment are envied by others (Burns, 2003). Many tourism projects hire local workers, who may have claims to land ownership, or are familiar with local geography, culture, and management practices, but also because it is less costly. Sometimes, however, distant workers are preferred in the belief that they work harder than local people and are less involved in local social and domestic activities that disrupt continuous, formal employment. In some unusual cases, such as the Maldives, most tourism workers are Bangladeshi migrants, who could be paid less (Scheyvens, 2011; Shakeela et al., 2011). Many such migrant workers send or take remittances back to their home areas (Cukier, 1996) and are also resented for this. At Koh Samui local people were regarded as unreliable, lazy, and dishonest, and likely to take much time off work; whereas migrant workers would work longer hours and take less time off (Williamson & Hirsch, 1996). Local people may be disadvantaged by their lack of relevant skills and knowledge, and the absence of training opportunities. Foreign entrepreneurs may also develop small-scale tourism activities that are regarded as the province of local people. At Koh Samui, expatriate westerners were involved from the earliest days as bar and bungalow owners and dive instructors. As elsewhere, a shift towards external ownership normally follows.



Small wooden tourist and fishing long boats with café and beach beds in front, on Gili Trawangan island, Indonesia.

Where tourism has grown, people migrate from elsewhere, not just as workers, but to become land, hotel, and service owners, exemplified by the rapid arrival of hoteliers from Australia, Timor, and Jakarta to the small town of Labuan Bajo on Flores Indonesia (Erb, 2005). Only rarely have local people been able to resist the incursions of others seeking to take advantage of valuable resources. Return migration of once local people may produce similar discontent. At Gili Trawangan, questions about who were the 'local people' with rights to be beneficiaries of tourism development became critical (Graci, 2013). In the British Overseas Territories of Cayman Islands, Turks and Caicos, and the British Virgin Islands, tourism has created so much employment that migrants now make up the majority of the population. While necessary, this has nonetheless been resented, creating divisions between 'belongers' and migrants, which has resulted in social tensions and raised legal and constitutional issues.

Although more jobs are held by men, tourism provides formal employment opportunities for women which may otherwise be rare. In Bali, informal employment was convenient for married women who could combine this with family and religious obligations (Cukier et al., 1996). Generally, tourism offers women new opportunities for social mobility, greater control over household incomes (because of their contribution to them), and, in some contexts, a break from patriarchal society. Women usually play an important role in cultural performances, though there is little evidence of the extent to which this may have generated new incomes and new social structures within communities, or perhaps even have contributed to the stereotyping of women's visual

role. However, women are more likely than men to use their incomes for community objectives rather than individual goals (Connell & Rugendyke, 2008). The ability of women to gain employment and income from tourism is particularly important where women tend to be the victims of poverty, yet cultural mores can exclude women from participation in the tourism industry, and some employment is problematic, where prostitution and massage parlours are common.

Accommodation and land

The most rewarding economic activity for islanders has usually been through the provision of accommodation, especially common in early phases of tourism, as 'new' tourists enjoy, or make do with, simple accommodation of local materials in the search for cultural experiences. However, to convert houses into more superior hotel accommodation, or build separate tourist accommodation, potential entrepreneurs and hoteliers require hard-to-obtain capital. Even developing basic tourist accommodation favours those already relatively well off, with land in attractive areas. As tourism expands, the need for more capital makes local access difficult.

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Over time, much local-style accommodation has been replaced by 'modern' accommodation, and local owners displaced by distant owners. In the 1970s, Batu Ferringhi beach (Penang island, Malaysia) was characterized by fishermen's cottages that were the main form of tourist accommodation; two decades later, all had been replaced by hotels; and international tourists, mainly backpackers, replaced by domestic tourists. Many parts of Bali, from the 1970s in Kuta, were characterized by home-stays (*losmens*): family-owned houses with three or four rooms for tourists, usually owned by local Balinese, but, within a decade, almost a third were owned by other Indonesians (Wall & Long, 1996). Relatively successful 'local' entrepreneurs tend to be marginal people, because of the necessity to have some experience of a wider world. As tourism grows, local people are more likely to be displaced from their homes, from their land (required for hotel resorts and golf courses), and even from jobs in the informal sector as tourism creates demands for higher, specialized standards of service and facilities. Taxis displace motorcycles. Local people may even be displaced from cultural performances, if their repertoire is deemed less exotic and colourful than more distant groups, as in some hotels in New Caledonia, where indigenous Melanesians were replaced by Tahitian migrants (Gibson & Connell, 2005). Reversals in favour of local people are rare, despite resorts and governments professing to be supportive.

As tourism becomes successful, land use and ownership may become contested, as distant interests seek to buy land and establish large hotels, with possible repercussions for the exploitation and conservation of land and sea in adjacent areas. Like employment and accommodation, land has tended to be acquired by more distant and non-local owners, or been expropriated by the state. On large islands, such as Hainan, with centralized and distant planning, land acquisition has been on a grand scale with local populations displaced and poorly compensated (Wang & Wall, 2007). Governments have frequently facilitated land acquisition by companies, not always legally, to enable large-scale tourism development. On the main island of Efate (Vanuatu), a high proportion of coastal land has been sold off to foreign investors ensuring that the best land and the largest, most profitable, tourist ventures are in foreign hands, while local small-scale ventures are marginalized (Slatter, 2006) economically and geographically.

In Efate, Vanautau, a high proportion of coastal land has been sold off to foreign investors.

The increased value of land for tourism poses other problems. At Gili Trawangan, tourist development was characterized by land disputes as wealthy enterprises and entrepreneurs from other Indonesian provinces bought large parcels of land, and land disputes and lawsuits proliferated but, as elsewhere, not always favouring local people (Connell & Rugendyke, 2008; Kamsma & Bras, 2000). Exceptionally, land of little local productive potential and value, such as low-lying sandy areas close to the coast, became of great significance for tourism. At Kuta, such land was early leased or sold off cheaply. In Koh Samui, the boom in land prices that tourism brought prompted many to sell and

On Koh Samui, Thailand, the less-valuable coastal land became important for tourism. The tropical resorts that resulted raised land values, putting land costs out of reach for native islanders.

generated 'instant millionaires', especially amongst traders who had already purchased cheap coastal land from indebted farmers and other creditors. For the near landless there was no benefit unless they wished to leave the island, hence higher land prices effectively encouraged outmigration of poorer islanders (Williamson & Hirsch, 1996). At several places, including Kuta and Koh Samui, as migrant workers and entrepreneurs were moving in, local people moved out. Tourism highlights already existing land tenure inequalities, where those with greater areas of land and status may benefit to the exclusion or marginalization of others, and introduces new inequalities between local people and migrants.

Incomes

Unsurprisingly, people primarily welcome tourism for the direct or indirect income-earning opportunities it provides, especially where there are few alternatives. This may also help retain culture and allow people to remain in their home areas without needing to migrate for work. However, equitable income distribution is rare, and this may become a source of tension. Where the impact of tourism is slight, and returns to tourism low, income might often be a significant proportion of all cash incomes in a remote place. A significant proportion of the income generated from ecotourism and some community-based tourism projects remains in the local community and is often spent on basic needs, while the use of local materials and expertise in ecotourism projects further concentrates income locally (Bricker, 2001; Connell & Rugendyke, 2008;

Scheyvens & Purdie, 1999). When income increases, divisions and tensions are more likely to follow.

Benefits from tourism are usually uneven, as certain local people and groups, with better connections and education, more land, and finance or entrepreneurial skills, have advantages (e.g., Su et al., 2016). Tourism becomes one more means of local socioeconomic differentiation. It may also contribute to marginalization and loss of local autonomy as distant outsiders take over the critical components of the industry, such as hotels, restaurants, and car hire. Local people never gain more than a proportion of tourist expenditure, and intermediaries—or overseas companies—may often be the key beneficiaries. Competition for tourist employment and income may be most intense where few alternatives exist. On Beqa, as more villagers sought to obtain contracts for performing fire-walking, they became more desperate to obtain contracts with hotels, and so undercut each other in the market and gained less income (Bigay et al., 1981). Elsewhere in Fiji there has been (sometimes violent) conflict between villagers over who has the right to ferry surfers—for significant incomes—to a popular surfing spot, a dispute centred on land and marine tenure (Harrison, 2004). Only skilful negotiation prevented Solomon Islands villagers blocking routes to distant villages where an ecotourism project operated, as they sought to gain some income from those who passed through (Russell & Stabile, 2003). Similar problems led to the demise of one of the most successful custom villages in Tanna (Vanuatu), and, in the Solomon Islands, the Anuha resort was burned down by villagers irate over minimal access to incomes generated from tourism on their land (Robinson & Connell, 2008; Weaver, 2002). Especially in Pacific islands, islanders may sometimes forgo what might elsewhere be seen as capitalist rationality in favour of ways of life and development strategies which maintain harmony and equity rather than maximize profit for some, but such altruism and broad community spirit are rare.

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Infrequently, the local benefits from tourism have been largely positive and relatively equitable. Tap Mun Island, Hong Kong, saw its population decline rapidly from the 1960s, from around 5,000 to 100, with the decline of agriculture and fishing, and emigration or migration to the city. Recent tourism has brought large numbers of weekend tourists, who spend money on food (in restaurants and grocery stores), souvenirs of dried fish and seaweed, and water taxis. While the principal beneficiaries were the package tourism operators who brought the tourists, the local population gained enough income to ensure a feasible and stable island livelihood, retain a "cultural connection with the sea," maintain "their traditional lifestyles for most of the week without interference or interruption by tourists," and have an "acceptable balance between

meeting modest economic needs and optimal lifestyle opportunities" (McKercher & Fu, 2006, p. 521). But this is rare, and, perhaps, transitory.

Linkages

Even within small islands, tourism is often highly centralized around the main urban area or on offshore islands and its impact localized. Remote places cannot easily benefit from tourism since tourists are less likely to visit outer islands, knowing little about them, preferring to stay put, or without enough time or money (Cassidy & Brown, 2010; Connell & Rugendyke, 2008). The level of local involvement in management and the structure of tourism, whether package tours or individuals, explain varying degrees of economic leakage and local participation and control.

Tourism stimulates development in other economic sectors, notably transport, agriculture, fisheries, and handicrafts, but multiplier effects are weakest in small islands where goods are more likely to be imported and tourism exists in enclaves. Few islands where tourism is of even slight importance have failed to develop handicrafts, notably

A horse and cart for hire on Gili Trawangan island, Indonesia.

in the many small-scale highly specialized handicraft industries of the villages between Ubud and Denpasar in Bali. Raw materials, skills, and knowledge of tourist interests may be lacking, such that basic carving is a common manifestation of handicrafts and more sophisticated handicrafts are mass-produced elsewhere and imported.

A significant proportion of the incomes generated from tourism leak from islands, or never reach them (Singh, 2008). Holidays are booked with overseas travel agents; airlines, cruise ships, hire cars, and hotels are often owned by transnational corporations; while construction materials, fuel, and labour may be imported. Payments made locally are repatriated when food and especially drinks are imported, alongside such 'tourism artefacts' as swimming costumes, surf boards, snorkels, and scuba gear. Where tourism markets are small, consistent linkages with agriculture and especially fisheries have proved difficult to develop, and neither has grown in response to tourism. Foreign-owned hotels usually have reliable global chains of food and drink supply independent of local producers. Hotels seek a regularity and high quality that local suppliers have not always been able to meet, although resorts have usually sought to stimulate local production to encourage good relations with local people, and gain a convenient, regular supply of fresh food. Even 'island nights' with 'authentic' local foods rarely tempt tourists to try them, and actually require more imports (Dixon & Jamieson, 2005; Scheyvens & Laeis, 2019; Thomas et al., 2018). By the 1980s, even in the larger Caribbean islands about two-thirds of the food consumed by tourists was imported. Integration of agriculture with the tourist industry has been disappointing, usually because of low volumes, uncertain supplies, and inaccessibility. Large resorts are least likely to be linked to local producers (Scheyvens & Russell, 2012). The attractions of fresh fish have enabled the fishing industry to be rather better integrated with the tourist industry.

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Moreover, tourism may compete with agriculture for labour, with tourism tending to be favoured, and resorts may occupy agricultural land or disrupt coastal fisheries, which may result in reduced food production where it would be most useful. In Bali, some tourist workers became divorced from village life, even paying fines for the non-performance of expected village activities, or selling off their village land (Cukier, 1998). However, elsewhere, as at Koh Samui, agriculture was declining prior to significant tourist development because of world prices, increased competition, and emigration; hence tourism was "a timely boost to a troubled island economy" (Williamson & Hirsch, 1996, p. 188), which hastened the near demise of the agricultural economy. Employment has shifted into local services. Local taxi services have flourished in most island tourism destinations, and not been replaced by external interests; taxi services provide a

preferred occupation. Small-scale industry, such as the manufacture of bread, soft drinks, and beer; and stores and restaurants have all grown in response.

Various estimates suggest that between 40 and 85% of tourist expenditures leave the islands with the lowest proportions retained in the smallest islands (Connell, 2013). So great has that leakage been, especially because of foreign ownership, that, as in Fiji, some have questioned the value of tourism, with its additional social costs, as a worthwhile development strategy (Rao, 2002). That is especially so where public infrastructure provision has favoured tourist regions. Yet a third of tourist expenditure remains, even though little of that may trickle down from urban areas or resort complexes, and, as tourism grows, resorts tend to replace locally owned accommodation, while land alienation displaces others. Nonetheless, as Anguilla's national tourist organization recognized some decades ago, tourists keep that island going as they "drop their dollars in little bundles all across the island making everybody happy: the resorts, restaurants, taxi-drivers, car rental companies, cruise boat operators, and the government" (quoted in Connell, 1993a, p. 137). Income is more effectively diffused in such small islands. Collectively, linkages into production, accommodation, and handicrafts, and both the formal and informal sectors, boost household incomes, and add diversity and flexibility to household survival strategies. As with employment, the small-scale nature of some of the linkages may change local power structures and, sometimes, increase the economic role of women. Given the particular bias towards women in travel brochures and travelogues, and, in the Pacific, even the feminization of destinations, there is irony in this gradual change.

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Environmental change

Tourism has diverse environmental impacts, usually perceived as negative. Change is inevitable where facilities must be constructed but, given tourist interests, is less visually intrusive and damaging to the environment than many forms of development. In some cases it may even result in a subsequently improved environment, where governments and hotels undertake various forms of conservation and land and marine management. In Fiji, the Philippines, and Thailand, for example, several island hotels have been in advance of government in stimulating environmental conservation, once it became evident that this was crucial to the tourist industry (White & Rosales, 2003; Wong, 2003). By contrast, some Asian island sites, including Boracay (Philippines), Koh

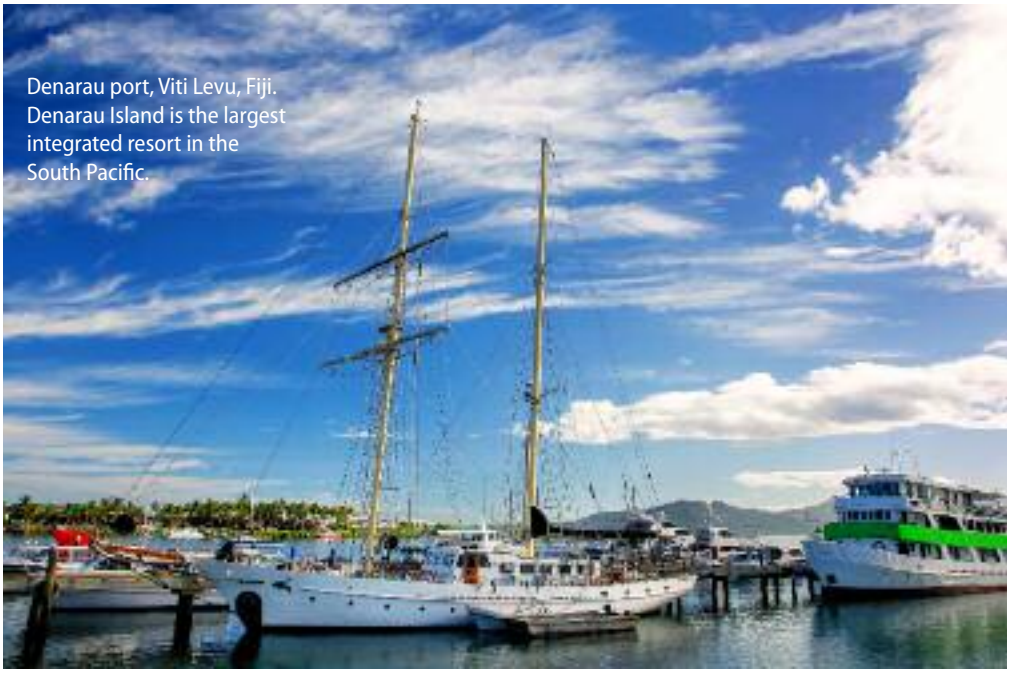
Phi Phi (Thailand), and Komodo (Indonesia), have recently had to be temporarily closed to tourism after environmental degradation became excessive. Several islands in the Caribbean and Mediterranean, such as Santorini, have been the victims of overtourism (e.g., Horowitz, 2019; Sarantakou & Terkenli, 2019) and moratoria on further development have been established in the Canary Islands (Inchausti-Sintes & Voltes-Dorta, 2019). Ironically, tourists may be more supportive of environmental stability and management than some local people, though expectations and appreciation vary enormously.

The correlation between rapid tourism growth and environmental degradation is usually strong. By the end of the 1980s, tourism growth at Kuta had outpaced the development of tourist infrastructure so that drainage, sanitation, traffic congestion, and air, water, and noise pollution were all problematic (Wall & Long, 1996), alongside the visual pollution of poles, posters, neon lights, and garbage. Similar island coasts, such as at Koh Samui (Thailand), have experienced degradation, where inadequate environmental planning and management, alongside sand mining, land clearance, and other deleterious activities, including golf courses, have resulted in the loss of agricultural land, coastal mangroves, and fisheries habitats, as well as increased coral reef damage, coastal erosion, and pollution from solid, liquid, and chemical waste.Environmental stresses are often greater where the tourism industry is not locally owned, and local values and needs more easily ignored.

Tourism has been almost entirely coastal in most islands and has placed considerable pressure on reefs and coasts, through reconstruction (e.g., seawall and marina

A Thai woman sells beachwear in Koh Samui, Thailand. Locals are discouraged from being on the beaches in front of hotels.

development), reclamation, waste and sewage disposal, and recreational uses. Environmental costs of tourism merge with social costs. At Koh Samui, tourist 'strips' dominate beaches and local people no longer have easy access for their own recreation or fishing: "locals are typically barred access to hotels that front the beach, and are even discouraged from being on the beach in front of hotels" (Green, 2005, p. 52). Coastal erosion has followed the removal of mangroves and development of tourism infrastructure, as at Denarau (Fiji), where accelerated erosion followed attempts to stabilize beaches using dykes and seawalls. The 'fixing' of coastal zones, by tourism and other infrastructure, accentuates vulnerability to hazards and climate change. Degradation of lagoons and coral reefs, and reduction of biodiversity, may reduce the attraction of tourism destinations, particularly critical in smaller islands that are almost exclusively dependent on tourism. Only where numbers are relatively small is effective management usually possible (Hawkins et al., 2005).



Denarau port, Viti Levu, Fiji. Denarau Island is the largest integrated resort in the South Pacific.

The sheer numbers of visitors and watercraft can threaten the carrying capacities of dive sites, and may result in pollution, overfishing, and overall environmental and aesthetic degradation. Numerous studies have demonstrated the harmful effects of tourism on reefs, directly through trampling and anchoring boats, and indirectly through waste deposition. Wetlands have been dried out. Golf courses, spas, and swimming pools are particularly demanding of fresh water, often in islands where it is already scarce (Skrimizea & Parra, 2019). In Barbados, for example, tourism absorbs 12% of the country's water, at three times the per capita rate of the local population

(Charara et al., 2011). Comparable pressures exist on energy, especially for air-conditioning in upmarket hotels, with tourists in the Seychelles using four times as much electricity as local people (Gössling & Schumacher, 2010). Economic gains have come at some social and environmental cost.

Climate change poses particular problems for island tourism, because of rising temperatures, possible degradation of coral reefs, coastal erosion, and an increased risk of vector-borne diseases. In some destinations, such as Fiji, tourism operators are seeking to manage the environment to reduce and mitigate the impact of climate-related changes but, as in the Maldives, Barbados, and the Seychelles, this is rare, since the industry assumes that profits can be made in a shorter time period than climate change and is more concerned over such issues as profitability, skilled labour shortages, and immediate environmental management (Connell, 2013, 2018). Yet, in a final irony, as management has responded to the 'litany of ecological impacts' on island environments, long-haul air travel to islands has been identified as one source of greenhouse gases contributing to climate change so that, in a small way, "island tourism is contributing to its own demise" (Carlsen & Butler, 2011, p. 3), such as with the 'Maldivian dilemma' involving the paradox of 'last chance tourism' ('see it before it disappears') in Tuvalu and elsewhere (Farbotko, 2010). Although tropical islands are the most likely places to be negatively affected by climate change, the impact on tourism is impossible to determine, and future tourism is more likely to be affected by socio-economic factors.

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Society and culture

Throughout the processes of broad economic change, island societies and cultures have also evolved, but in an even more complex manner. Culture has never been static, and evolved long before the advent of tourism, yet tourism has often accelerated existing processes of change. In some contexts, it has contributed to a revival of material culture. In Chuuk (Federated States of Micronesia), even limited tourism helped promote handicraft production, reinvigorated artistic skill, and raised awareness of the artistic merit of traditional artefacts (Nason, 1984). Visual culture (art, dance, and music) may be transformed in quite different ways: it may be reinforced and strengthened, embellished and changed in form (by shortening or adapting more lively and exotic components), abandoned, or even invented (e.g., Harnish, 2005), with simultaneous conservation and dissolution.

What was once in the course of being abandoned may be revitalized for tourist consumption. Thus the Sa people of Pentecost island and the villagers of Yakel on Tanna

(Vanuatu), regarded as more 'traditional' than others on these islands, are the main recipients of tourist income because of their retention of distinctive and marketable customs (de Burlo, 1996; Robinson & Connell, 2008). Local cultures are adapted, embellished, and staged at particular times for the tourist gaze; tourist guides on the island of Alor (Indonesia) actively promoted it as an island of black magic (Adams, 2004). At a national level, tourism agencies also shape images that almost always imply cultural (and scenic) distinctiveness, and hint at the cultural capital that might be acquired from observing difference.

Difference may be enhanced. In Bali, the frog, barong, and kecak dances have been invented and much modified for the tourist gaze (Dunbar-Hall, 2001; Picard, 1996), while fire-dancing, characteristic of Samoan touristic performances, was invented by Samoans working in Hollywood in the 1960s. Fijian fire-walking, initially confined to part of one small island in Fiji, has now spread to most significant tourist areas and is rarely if ever performed outside a tourist context (Stymiest, 1996). Errington and Gewertz (1991) thus point to the wider paradox in New Guinea where "tourists were drawn to Chambri to see those less developed whereas the Chambri sought to attract tourists so that they could be more developed" (p. 28). The maintenance of tradition, even in artificial form, poses problems for the sustainability of tourism when residents seek to use their tourist income to purchase elements of modernity. In Flores, villagers resented the government attaching heritage status to megaliths in the village, generating tourism but consigning them to being a 'primitive' and unchanged society (Cole, 2003). In such contexts, especially the simple dichotomy of hosts and guests, even where it seems most evident, is simply absent: middlemen, brokers, and the state play crucial roles.

TOURISM HAS HASTENED modernity. In many places, the economic gains from tourism have been used for improved consumption, housing, and technology.

Where once many islanders feared the social costs of tourism, over-hasty modernization, and the pernicious values of tourists, fears largely subsided as the economic benefits became obvious and other facets of island economies struggled. Tourism has hastened modernity. In many places, the economic gains from tourism have been used for improved consumption, housing, and technology (e.g., Connell & Rugendyke, 2008; Kerstetter & Bricker, 2009; Scheyvens & Russell, 2012). Social costs have nonetheless ensued, such as uneven development, conflicts over land and incomes, and abandonment of culture (and its role in social organization), while some relatively new phenomena have appeared, such as prostitution and, less obviously, crime. In the Maldives, "luxury resorts have been contrasted with the high overcrowding, poverty, malnutrition and substance abuse of ordinary residents" (Shakeela & Weaver, 2012, p. 1343). In Rapanui, where tourist numbers vastly exceed the local population, the outcome has been described as "a run-away materialism [where] individual avarice and virulent

Excessive party tourism on Koh Phangan,Thailand: Full Moon party hats and street signs offering tourists whatever they want.

consumerism are undermining social cohesion" (Fischer, 2005, pp. 257, 260). Social change is rarely either so dramatic or so negative, and was usually merely emphasized and accelerated by tourism.

Devastating critiques have been made of the impact of tourism on local cultures, not least by Picard (1993), who wrote of "cultural tragedy" (p. 71) in Bali even before mass tourism arrived; but such critiques tend to represent intellectual hostility to rising mass tourism, rather than recognition that social change was often highly acceptable. The islands of Koh Phangan and Koh Samui (Thailand) are rare examples of the excesses of hedonistic party tourism. One journalist has described this well:

> *What is Koh Phangan if it isn't the embodiment of the globalisation we all profess to despise? Twenty years ago before the full moon parties, Hat Rin Nok was a tiny fishing village unchanged in millennia. A generation later—our generation—and the streets are paved with Internet cafés and the fishing boats conduct all you can smoke ganja cruises … Equitable distribution of wealth? Not in this place. Many of the bars are owned or leased by farangs, foreigners who came for a holiday and never left. The only locals who can get jobs are those who can speak English.*
> (Smith, 2002, p. 6)

Islanders themselves have been more cautious about tourism, often perceiving agriculture to be dirty, dull, and difficult, and merely producing 'slow money' compared with the easy and 'fast money' of tourism. Critiques of the social impact of tourism were often an external response to the 'loss of visual culture' rather than a recognition that the most cherished values, centred on kinship relations, were usually resilient to outside influence, and tourism enabled new and positive means of self-representation. Social change has brought positive and negative consequences. Typically, on Pari Island (Indonesia), tourism brought jobs, incomes, and better access to services, but reduced social cohesion, as competition developed and decreased adherence to traditional customs (Kinseng at al., 2018). However, income from tourism that enables access to education, water supplies, and technology is welcomed. Change and resilience have been contemporaneous as tourism has brought a series of interconnected and sometimes paradoxical outcomes, as culture and tourism become increasingly intertwined.

CONCLUSION

Across so many islands, the variety of experiences and outcomes is enormous. Where islanders have participated in tourism, it has never been easy or equitable. Capitalism and competition characterize the industry. Even on small islands, tourism engenders competition as much as cooperation in the quest for success, altruism is rare, and conflict not unusual. Control by local capital may not necessarily be superior to development by distant capital. Not all local communities have been willing participants in the industry. Participation is complex where local islanders both stage exotic, cultural events that hark back to a distant past, and provide services in nearby modern hotels. There is an inherent ambivalence about cultural marginality and economic incorporation.

ISLANDS (AND COMMUNITIES, districts, and regions) have never been homogeneous, and the uneven development that has often followed tourism has tended to build on existing inequalities where these relate to power, land tenure, or access to resources.

Islands (and communities, districts, and regions) have never been homogeneous, and the uneven development that has often followed tourism has tended to build on existing inequalities where these relate to power, land tenure, or access to resources. In almost every place, well evident in Kuta and Koh Samui, there are both local winners and losers, which challenge any simple notions of change. While there is no necessary reason why inequality, the loss of cultural autonomy, and the subordination of local people in global cultures and economies are the inevitable outcome of tourist development, new forms of social stratification, conflict, and inequality at the local level have been a familiar outcome of tourist development, with islanders often constrained by a lack of economic and

social capital and basic understanding of the increasingly global dimensions of the industry.

Tourism is frequently perceived to be one possibility for poverty reduction in economically disadvantaged regions or nations, yet tourism as a development option has increasingly been criticized for its failure to include local people in decision-making, to manage the environment, or even to ensure the distribution of benefits to those who bear the social costs (Briedenhann & Wickens, 2004). In large part, this is because interventions in favour of more effective local participation must come from NGOs and governments, both of which are relatively powerless in the tourist industry. In the latter case, where governments are anxious to stimulate tourism, their interest is often in the more exclusive sector, rather than the much derided or ignored 'backpacker tourism' that is more likely to reach remote areas and involve local people. Government leaders, like local community leaders, are not always responsive to the needs of the poor or remote islands. National tourism marketing campaigns have tended to be precisely that, advertising the nation and supporting the larger national and international players, while making rhetorical statements about equity and regional interests. Enlightenment, enthusiasm, and disinterest are as crucial as regulation and management.

Yet it is readily evident that many areas have benefited dramatically from the rise of tourism. Indeed, Hong Kong islands and the once remote Yasawa Islands Group in Fiji, where emigration was depleting island populations, have survived only because of it. Yet with more modern transport, several islands, like the main Cook Islands, have been

Nanuya Levu island in the Yasawa Group in Fiji is the site of the Turtle Island Resort for the rich and famous. It was the set location for the romance adventure film *The Blue Lagoon* (1980).

able to move away from being 'destinations on the edge' (Burns & Cleverdon, 1995) to being dominated by tourism. Tourism has brought new development and enabled villagers to remain on their home islands. Beyond such fortunate places, where tourism has transformed island life in positive ways, and negative consequences are few, achieving equitable and sustainable development through tourism has proved difficult. Yet the potential economic rewards from tourism have generated intense local interest in tourism. Small may be beautiful, but it is also disadvantageous in getting physical and virtual access to a remote and 'unknown' market, so that intermediaries rather than islanders are often the prime beneficiaries of tourism. Local involvement has never been easy; in most contexts it remains true that "international tourism constructs as it commodifies, alienates as it appropriates, and dominates as it penetrates. Local authority is undermined, local empowerment is difficult to sustain, and local environments are changed for ever" (Conway, 2002, p. 120). Consequently, tourist-local relationships are often marked by ambivalence and tension as the balance of power shifts between insiders and outsiders. Tourism may be uneven and unpredictable, incomes may leak away and social costs be unwelcome, while islands are dependent on decisions taken elsewhere (whether by potential tourists, airlines, or cruise companies). Ultimately, it is a function of accessibility. Islands may be on the edge, but they are almost certain to remain attractive destinations.

REFERENCES

Adams, K. (2004). The genesis of touristic imagery. Politics and poetics in the creation of a remote Indonesian island destination. *Tourist Studies*, *4*, 115-135.

Amoamo, M. (2011). Remoteness and mythmaking: Tourism development on Pitcairn Island. *Tourism Planning and Development*, *8*, 1-19.

Bigay, J., Green, M., Rajotte, F., Ravuvu, A., Tubanavau, M., & Vitusagavulu, J. (1981). *Beqa. Island of Firewalkers.* Suva: Institute of Pacific Studies.

Bras, K., & Dahles, H. (1998). Women entrepreneurs and beach tourism in Sanur, Bali. Gender, employment opportunities and government policy. *Pacific Tourism Review, 1*, 243-256.

Bricker, K. (2001). Ecotourism development in the rural highlands of Fiji. In D. Harrison (Ed.). *Tourism and the less developed world* (pp. 235–250). Wallingford: CABI Publishing.

Briedenhann, J., & Wickens, E. (2004). Tourism routes as a tool for the economic development of rural areas—Vibrant hope or impossible dream. *Tourism Management, 25,* 71-79.

de Burlo, C. (1996). Cultural resistance and ethnic tourism on South Pentecost, Vanuatu. In M. Hitchcock, V. King, & M. Parnwell (Eds.). *Tourism in south-east Asia* (pp. 255-276). London, UK: Routledge.

Burns, G. (2003). Indigenous responses to tourism in Fiji. In D. Harrison (Ed.). *Pacific island tourism* (pp. 82-93). New York: Cognizant Communication Corporation.

Burns, P., & Cleverdon, R. (1995). Destination on the edge? The case of the Cook Islands. In M. Conlin & T. Baum (Eds.). *Island tourism* (pp. 217-228). Chichester: Wiley.

Carlsen, J., & Butler, R. (2010). Introducing sustainable perspectives in island tourism. In J. Carlsen & R. Butler (Eds.). *Island tourism: Sustainable perspectives* (pp. 1-7). Wallingford: CABI.

Cassidy, F., & Brown, L. (2010). Determinants of small Pacific island tourism: A Vanuatu study. *Asia Pacific Journal of Tourism Research, 15,* 143-153.

Charara, N., Cashman, A., Bonnell, R., & Gehr, R. (2011). Water use efficiency in the hotel sector of Barbados. *Journal of Sustainable Tourism, 19,* 231-245.

Cole, S. (2003). Appropriated meanings: Megaliths and tourism in eastern Indonesia. *Indonesia and the Malay World, 31,* 140-150.

Connell, J. (2018). Islands: Balancing development and sustainability. *Environmental Conservation, 45*(2), 111-124.

Connell, J. (2013). *Islands at risk. Environments, economies and contemporary change.* Cheltenham: Edward Elgar.

Connell, J. (2007). 'The best island on the globe'. Constantly constructing tourism in Niue. *Australian Geographer, 38,* 1-13.

Connell, J. (1993a). Anguilla: The tourist trajectory in an island microstate. *Caribbean Geography, 4,* 131-138.

Connell, J. (1993b). Bali revisited: Death, rejuvenation and the tourist cycle. *Environment and Planning D, 11,* 641-661.

Connell, J., & Rugendyke, B. (2008). Tourism and local people in the Asia-Pacific region. In J. Connell & B. Rugendyke (Eds.). *Tourism at the grassroots* (pp. 41-57). London, UK: Routledge.

Conway, D. (2002). Tourism, agriculture, and the sustainability of terrestrial ecosystems in small islands. In Y. Apostolopoulos & D. Gayle (Eds.). *Island tourism and sustainable development* (pp. 113-130). Westport: Praeger.

Cukier, J. (1998). Tourism employment and shifts in the determination of social status in Bali: The case of the "guide". In G. Ringer (Ed.). *Destinations. Cultural landscapes of tourism* (pp. 63-79). London, UK: Routledge.

Cukier, J. (1996). Tourism employment in Bali: Trends and implications. In R. Butler & T. Hinch (Eds.). *Tourism and indigenous peoples* (pp. 49-75). London, UK: International Thomson Business Press.

Cukier, J., Norris, J., & Wall, G. (1996). The involvement of women in the tourism industry of Bali, Indonesia. *Journal of Development Studies, 33,* 248-270.

Dahles, H. (2000). Tourism, small enterprises and community development. In D. Hill & G. Richards (Eds.). *Tourism and sustainable community development* (pp. 154-169). London, UK: Routledge.

Dixon, J., & Jamieson, C. (2005). The cross-Pacific chicken: Tourism, migration and chicken consumption in the Cook Islands. In N. Folds & B. Pritchard (Eds.). *Cross-continental food chains* (pp. 81-93). London, UK: Routledge.

Dunbar-Hall, P. (2001). Culture, tourism and cultural tourism: Boundaries and frontiers in performances of Balinese music and dance. *Journal of Intercultural Studies, 22,* 173-187.

Erb, M. (2005). Limiting tourism and the limits of tourism: The production and consumption of tourist attractions in western Flores. In C. Ryan & M. Aicken (Eds.). *Indigenous tourism: The commodification and management of culture* (pp. 157-181). Amsterdam: Elsevier.

Errington, F., & Gewertz, D. (1989). Tourism and anthropology in a post-modern world. *Oceania, 60,* 37-54.

Farbotko, C. (2010). 'The global warming clock is ticking so see these places while you can': Voyeuristic tourism and model environmental citizens on Tuvalu's disappearing islands. *Singapore Journal of Tropical Geography, 31,* 239-253.

Fischer, S. (2005). *Island at the end of the world: The turbulent history of Easter Island.* London, UK: Reaktion.

Gibson, C., & Connell, J. (2005). *Music and tourism: On the road again.* Clevedon: Channel View.

Gössling, S., & Schumacher, K. (2010). Implementing carbon neutral destination policies: Issues from the Seychelles. *Journal of Sustainable Tourism, 18,* 377-391.

Graci, S. (2013). Collaboration and partnership development for sustainable tourism. *Tourism Geographies, 15*(1), 25-42.

Green, R. (2005). Community perceptions of environmental and social change and tourism development on the island of Koh Samui, Thailand. *Journal of Environmental Psychology, 25,* 37-56.

Harnish, D. (2005). Teletubbies in paradise: Tourism, Indonesianisation and modernisation in Balinese music. *Yearbook for Traditional Music, 37,* 103-123.

Harrison, D. (2004). Tourism in Pacific islands. *Journal of Pacific Studies, 26*(1-2), 1-28.

Hawkins, J., Roberts, C., Kooistra, D., Buchan, K., & White, S. (2005). Sustainability of scuba diving tourism on coral reefs of Saba. *Coastal Management, 33,* 373-387.

Hitchcock, M. (1993). Dragon tourism in Komodo, eastern Indonesia. In M. Hitchcock, V. King, & M. Parnwell (Eds.). *Tourism in South-East Asia* (pp. 303-315). London, UK: Routledge.

Horowitz, J. (2019, August 6). The bride, the groom and the Greek sunset: A perfect wedding picture. *New York Times*.

Inchausti-Sintes, F., & Voltes-Dorta, A. (2019). The economic impact of the tourism moratoria in the Canary Islands 2003-2017. *Journal of Sustainable Tourism, 28*(3), 394-413.

Kamsma, T., & Bras, K. (2000). Gili Trawangan—From desert island to 'marginal' paradise. Local participation, small-scale entrepreneurs and outside investors in an Indonesian tourist destination. In D. Hill & G. Richards (Eds.). *Tourism and sustainable community development* (pp. 170-184). London, UK: Routledge.

Kerstetter, D., & Bricker, K. (2009). Exploring Fijians' sense of place after exposure to tourism development. *Journal of Sustainable Tourism, 17,* 691-708.

Kinseng, R., Nasdian, F., Fatchiya, A., Mahmud, A., & Stanford, R. (2018). Marine-tourism development on a small island in Indonesia: Blessing or curse. *Asia Pacific Journal of Tourism Research, 23*(11), 1062-1072.

Lasso, A., & Dahles, H. (2018). Are tourism livelihoods sustainable? Tourism development and economic transformation on Komodo Island, Indonesia. *Asia Pacific Journal of Tourism Research, 23*(5), 473-485.

Lowe, J. (2019, August 27). *Poor Filipino fishermen are making millions protecting whale sharks*. The Conversation.

McCall, G. (2008). Another (unintended) legacy of Captain Cook? The evolution of Rapanui (Easter Island) tourism. In J. Connell & B. Rugendyke (Eds.). *Tourism at the grassroots* (pp. 41-57). London, UK: Routledge.

McKercher, B., & Fu, C. (2006). Living on the edge. *Annals of Tourism Research, 33,* 508-534.

Nason, J. (1984). Tourism, handicrafts and ethnic identity on Micronesia. *Annals of Tourism Research, 11,* 421-449.

Picard, M. (1996). *Bali. Cultural tourism and touristic culture.* Singapore: Archipelago Press.

Picard, M. (1993). 'Cultural tourism' in Bali: National integration and regional differentiation. In M. Hitchcock, V. King, & M. Parnwell (Eds.). *Tourism in South-East Asia* (pp. 71-98). London, UK: Routledge.

Rao, M. (2002). Challenges and issues for tourism in the South Pacific island states: The case of Fiji Islands. *Tourism Economics, 8,* 401-429.

Robinson, P., & Connell, J. (2008). 'Everything is truthful here': Custom village tourism in Tanna, Vanuatu. In J. Connell & B. Rugendyke (Eds.). *Tourism at the grassroots* (pp. 77-97). London, UK: Routledge.

Russell, D., & Stabile, J. (2003). Ecotourism in practice: Trekking the highlands of Makira Island, Solomon Islands. In D. Harrison (Ed.). *Pacific island tourism* (pp. 38-57). New York: Cognizant Communication Corporation.

Sarantakou, E., & Terkenli, T. (2019). Non-institutionalised forms of tourism accommodation and overtourism impacts on the landscape: The case of Santorini. *Tourism Planning and Development, 16*(4), 411-433.

Scheyvens, R. (2011). *Tourism and poverty*. London, UK: Routledge.

Scheyvens, R., & Laeis, G. (2019). Linkages between tourist resorts, local food production and the sustainable development goals. *Tourism Geographies*. doi: 10.1080/14616688.2019.1674369

Scheyvens, R., & Purdie, N. (1999). Ecotourism. In J. Overton & R. Scheyvens (Eds.). *Strategies for sustainable development: Experiences from the Pacific* (pp. 212–226). London/New York: Zed.

Scheyvens, R., & Russell, M. (2012). Tourism and poverty alleviation in Fiji: Comparing the impacts of small and large scale tourism enterprises. *Journal of Sustainable Tourism, 20*(3), 417-436.

Shakeela, A., Ruhanen, L., & Breakey, N. (2011). The role of employment in the sustainable development paradigm: The local tourism market in small island developing states. *Journal of Human Resources in Hospitality and Tourism, 10,* 331-353.

Singh, D. (2008). Small island developing states (SIDS). Tourism and economic development. *Tourism Analysis, 13,* 629-636.

Skrimizea, E., & Parra, C. (2019). Social-ecological dynamics and water stress in tourist islands: The case of Rhodes, Greece. *Journal of Sustainable Tourism, 27*(9), 1438-1456.

Slatter, C. (2006). *The con/dominion of Vanuatu? Paying the price of investment and land liberalisation—A case study of Vanuatu's tourism industry.* Auckland: Oxfam New Zealand.

Smith, C. (2002, July 7). Backpackers Inc. *Sydney Morning Herald*, pp. 1, 6.

Stymiest, D. (1996). Transformation of Vilavilairevo in tourism. *Annals of Tourism Research, 23,* 1-18.

Su, M., Wall, G., & Jin, M. (2016). Island livelihoods: Tourism and fishing at Long Islands, Shandong Province, China. *Ocean and Coastal Management, 122,* 20-29.

Thomas, K., Joppe, M., & von Massow, M. (2018). Improving linkages through a service-oriented local farmers-hotel supply chain—An explanatory case in Grenada. *Tourism Planning and Development, 15*(4), 398-418.

Wall, G., & Long, V. (1996). Balinese homestays: An indigenous response to tourism opportunities. In R. Butler and T. Hinch (Eds.). *Tourism and indigenous peoples* (pp. 29-48). London, UK: International Thomson Business Press.

Walpole, M., & Goodwin, H. (2001). Local attitudes towards conservation and tourism around Komodo National Park, Indonesia. *Environmental Conservation, 28,* 160-166.

Walpole, M., & Goodwin, H. (2000). Local economic impacts of dragon tourism in Indonesia. *Annals of Tourism Research, 27,* 559-576.

Wang, Y., & Wall, G. (2007). Administrative arrangements and displacement compensation in top-down tourism planning—A case from Hainan Province, China. *Tourism Management, 28,* 7-82.

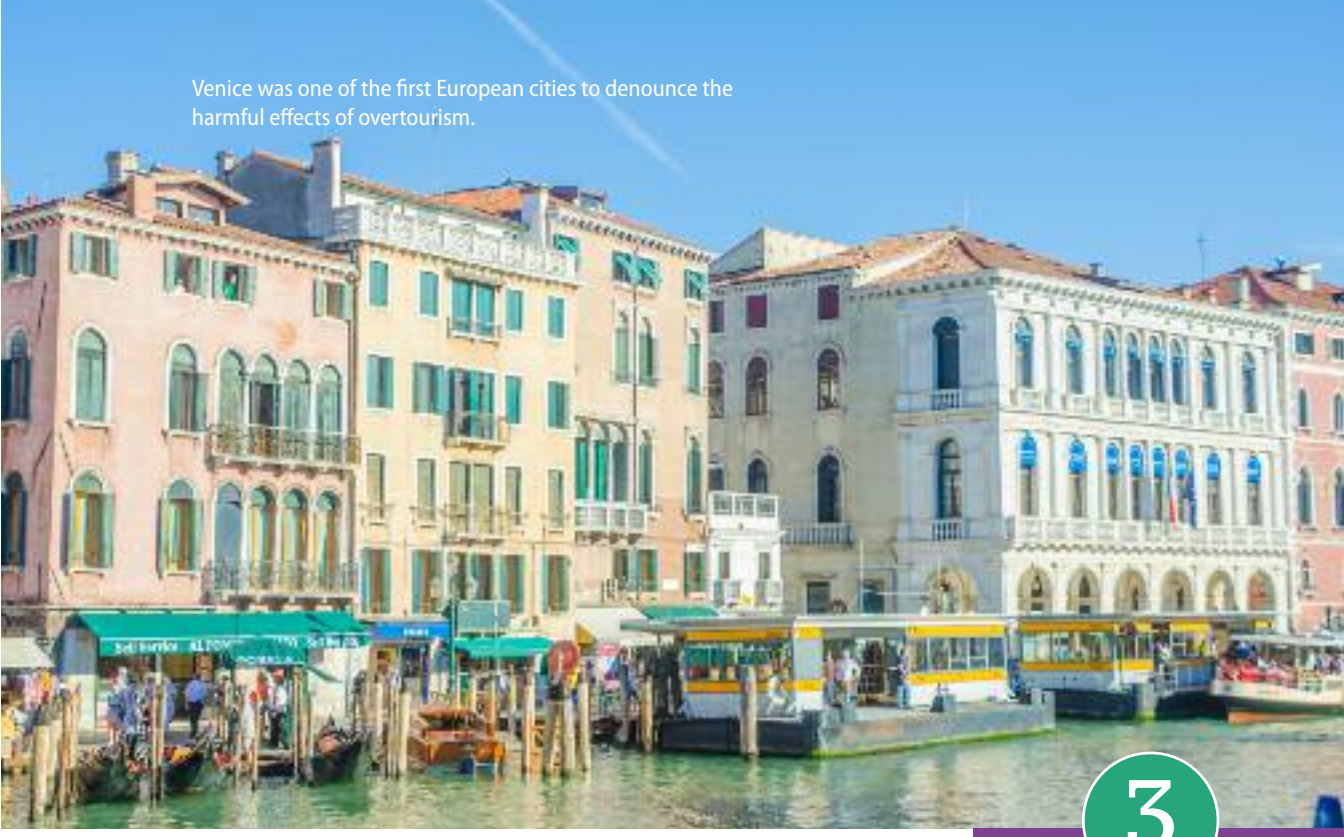
Weaver, D. (2002). Perspectives on sustainable tourism in the South Pacific. In R. Harris, T. Griffin, & P. Williams (Eds.). *Sustainable tourism: A global perspective* (pp. 121-139). Oxford: Butterworth Heinemann.

White, A., & Rosales, R. (2003). Community-oriented marine tourism in the Philippines. In S. Gössling (Ed.). *Tourism and development in tropical islands* (pp. 237-262). Cheltenham: Edward Elgar.

Williamson, P. (1992). Tourist developers on Koh Samui, Thailand. *Journal of Cultural Geography, 12,* 53-64.

Williamson, P., & Hirsch, P. (1996). Tourism development and social differentiation in Koh Samui. In M. Parnwell (Ed.). *Uneven development in Thailand* (pp. 186-203). Aldershot: Avebury.

Wong, P. (2003). Tourism development and the coastal environment on Bintan Island. In S. Gössling (Ed.). *Tourism and development in tropical islands* (pp. 263-282). Cheltenham: Edward Elgar.



Venice was one of the first European cities to denounce the harmful effects of overtourism.

3

Overtourism and undertourism:

ICT in island development policy

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ABSTRACT

Tourism represents a relevant source of income and employment, especially for islands and coastal areas. At the same time, it can have unexpected detrimental impacts on environments and local communities. This discussion has been widely argued in the international literature. The attention should now focus on tourism effects, as it can bring development and wellbeing, but also negative aspects if not managed and planned properly. The need to address a sustainable approach and to consider new available tools, such as information technologies, has also

emerged. Destinations, indeed, can suffer from two relevant problems linked with tourism: overtourism, defined as the excess of tourism flows over the carrying capacity limit, and undertourism, or the existence of a lower level of tourism flows in respect of the potential and existing resources of a destination. This latter outcome may lead to an underdevelopment of local economies compared with that which could be derived from tourism. This chapter reviews overtourism and undertourism and proposes emerging potential tools and strategies related to these outcomes. This effort could help to define specific and tailored policies and strategies to address these issues, as well as contributing to filling the existing research gap.

INTRODUCTION

Tourism is an important source of revenue and employment for islands, those special clusters and fragile contexts independent from mainland countries (Ruggieri & Vázquez, 2017). But growth and development brought to an island by tourism could unexpectedly reach an excess known as *overtourism*, to the detriment of its local community and environment. Many factors explain why overtourism impacts the environment. A new sustainable approach to development is necessary, based on quantitative and qualitative indicators and a broad awareness of the need to preserve and value local resources (Ruggieri & Vázquez, 2017). This should consist of tools and strategies aimed at reaching a level of optimal development, avoiding the negative effects of tourist flows, and encouraging a new tourist distribution in underused periods of the calendar year. Technology is a key tool for analysis and goal-directed methods. Information and communications technology (ICT) can help the tourism industry improve its management and promotion of destinations, especially regarding issues of tourist flows and sustainable development, for example, in cities such as Venice (Seraphin et al., 2018) and Dubrovnik (Carić & Mackelworth, 2014). Monitoring tourism impacts and characteristics is of prime importance when considering and maintaining the correct pressure, avoiding the detrimental effects of tourist flow, and finding new opportunities for a local industry's expansion (Chen, 2006; Craigwell & Maurin, 2007; Griffith, 2002; Sharpley, 2003). While a destination's transformation from luxury to mass tourism may benefit some businesses, it could have a negative impact on locals and their environment if not managed well, since all of the same products available to tourists are available to locals. At the same time, this creates a favourable environment for tourism expansion and a high percentage of repeat visitors.

During the first phase of this process, countries may not take advantage of the favourable international environment for tourism expansion. Over time, most countries see growth taking place once they realize the importance of tourism's role in their economy (Ruggieri & Calò, 2018). This is how technology and innovation could be considered the main forces in sustainability and important catalysts of tourism innovation

(Hjalager, 2010; Scheel & Vázquez, 2011). ICT can be employed to drive tourists to alternative paths, promote other sites, and monitor the number of tourists visiting or passing through a specific destination site, increasing data normally lacking in traditional surveys due to their administrative nature. Several devices with useful monitoring and analysis functions are available with the correct tools.

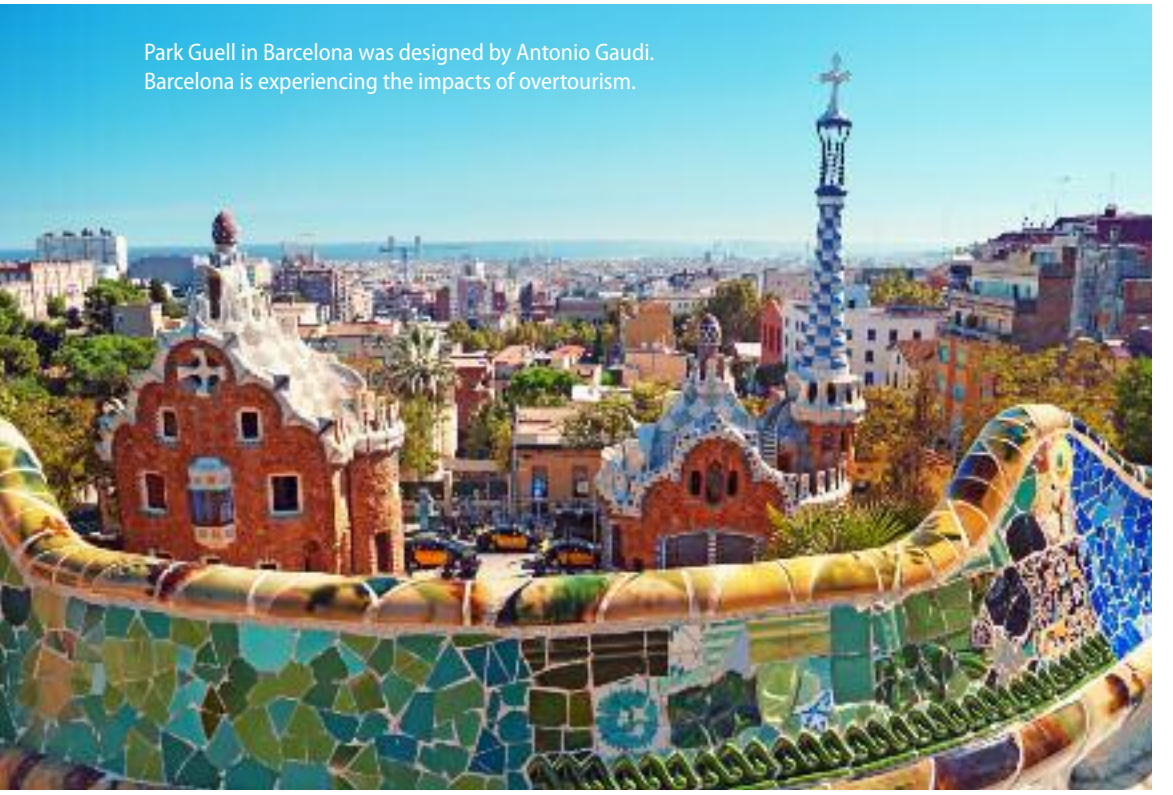
In this chapter, we present specific island contexts and compare them to mainlands. We examine how certain technologies and methods used in monitoring and evaluating the state of a destination's tourism may also show how ICT tools can support either an expansion or a reduction of flows in time and space. The need to reduce the negative impacts on destinations is related to the preservation of local heritage, material and immaterial. The ultimate goal is to promote a positive exchange between locals and tourists based on a mutual respect defined by a shared appreciation of local identity and heritage (Vázquez & Ruggieri, 2011).

Our main objective is to review studies on undertourism and overtourism and, in so doing, introduce the potential tools and strategies concerning these two scenarios. Such an overview could help define specific and ad hoc policies and strategies to confront these issues.

LITERATURE REVIEW

Seasonality is a significant concern in tourism (Petrevska, 2013) and initiates constant debate among researchers (Bar-On, 1993, 1999; Baum, 1999; Chung, 2009; Higham & Hinch, 2002; Jang, 2004; Lundtrop, 2001; Rodrigues & Gouveia, 2004; Yacoumis, 1980). There is disagreement on the disproportion in flows that result in demand oscillation: first, natural (e.g., summer, winter); second, institutional (e.g., religious, corporate); and third, all others (e.g., events, tastes) (Petrevska, 2003). Thus, seasonality is an extended issue for the tourism industry due to its demand's uneven nature and its supply's comparatively static nature in capacity and resources (Connell et al., 2015). According to Bar-On (1973), one may understand seasonality as a factor triggering incomplete and unbalanced financial prosperity. Demand's uneven nature and supply's static nature produce two opposite situations for a given destination. Furthermore, while a destination's peak season can have an increased flow and overtourism, its off-peak season can have a decreased flow and undertourism. Because of this, Butler (1994) proposes that destinations tackling demand seasonality should focus on developing diverse forms of tourism. It is characteristic of this process to highlight the potential of explicit products and experiences through product improvement and diversification to increase demand in low seasons (Connell et al., 2015). As a result, a destination's appeal is generally increased in existing and new markets (Getz, 1989).

Many acknowledge tourism as a producer of benefits for visitors, such as relaxation, and the host community, such as earnings (Briguglio & Avellino, 2019). Briguglio and



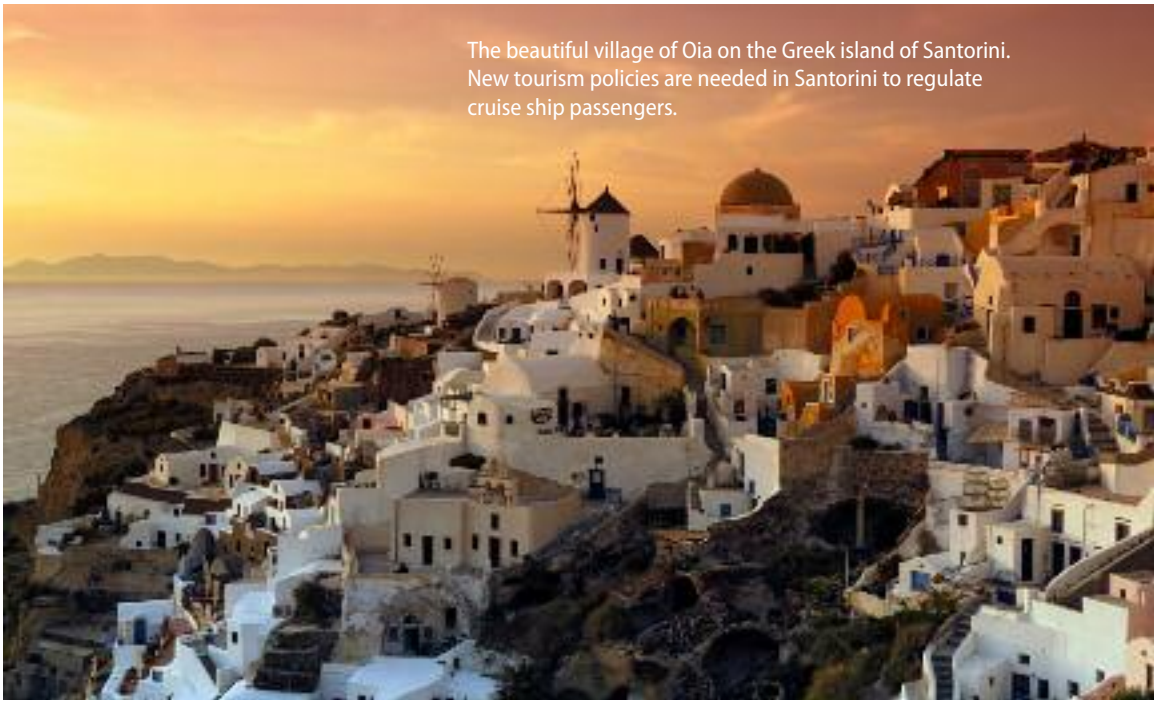
Park Guell in Barcelona was designed by Antonio Gaudi. Barcelona is experiencing the impacts of overtourism.

Avellino refer to studies in support of tourism as a creator of economic and social benefits outperforming other industries because of the increased income multiplier and external industry connections. Furthermore, various studies focus on the financial returns and drawbacks of tourism (e.g., Ahmad et al., 2018; Archer et al., 2005; Bryden, 1973; Diedrich et al., 2009; Tribe, 1999; Vogel, 2001). However, a recent exponential increase in tourist traffic has led host communities to experience undesirable consequences, such as overpopulation, traffic jams, and environmental destruction (Briguglio & Avellino, 2019). Thus, overtourism is defined as that phenomenon in which flows surpass a destination's natural capacity limit. A recent study views spoiled tourist experiences, overcrowded infrastructure, and environmental and cultural harm as risks related to overtourism (McKinsey & Company and World Travel & Tourism Council, 2017). Today, an increasing number of cities are being impacted by overtourism's phenomena (such as Berlin, Prague, Hong Kong, Venice, Rio de Janeiro, Barcelona, Shanghai, Amsterdam, Palma de Majorca, and Dubrovnik (Milano, 2017, 2018; Novy, 2016). However, a comparative study of destinations in and outside Europe as diverse as Baku (Azerbaijan), Cozumel (Mexico), Juist (Germany), Kasane (Botswana), Lombok (Indonesia), Muskoka (Canada), Rigi (Switzerland), Soweto (South Africa), and Vienna (Austria) explains how the emergence of overtourism has various causes (Peeters et al., 2018). According to Goodwin (2017, pp. 5-6), these are multifactorial:

- Travel: low-cost airfares and reduced flight duration
- Real estate: issues and cheaper rents due to sharing economy platforms (e.g., Airbnb)
- Volatility: seasonal concentrations of unsustainable tourism flows
- Job market: uncertainty in tourism employment
- Changes in tourism: domestic and foreign markets

Furthermore, overcrowding and a lack of space to meet increasing demands are the core roots of 'tourismphobia' (Briguglio & Avellino, 2019). Milano (2018) provides examples of this when examining Hong Kong, Rio de Janeiro, Malta, Barcelona, Dubrovnik, and Venice. This author explains how the lagoon city of Venice—which in 2017 had 261,321 total residents, 53,799 residents in the historic centre, and 11,685,819 overnight stays—was one of the first European cities to denounce the harmful effects of the increase in visitors. Milano uses the term 'Venice syndrome' to indicate the phenomenon of a city's depopulation of the historic centre and its inhabitants' movement to the periphery.

'Carrying capacity' is a term that defines tourism limitation as it suggests how economic gains may be overshadowed by negative externalities, mainly social and environmental (Briguglio & Avellino, 2019). The World Tourism Organization (1981) defines carrying capacity as the maximum number of people that may visit a destination at the same time without causing the destruction of the physical, economic, and socio-



The beautiful village of Oia on the Greek island of Santorini. New tourism policies are needed in Santorini to regulate cruise ship passengers.

A ferry brings tourists to the village of Manarola, Cinque Terre, Italy.

cultural environment and an unacceptable decrease in the quality of visitors' satisfaction. Middleton and Hawkins (1998) define it more simply as a boundary outside which an area may suffer from the opposing effects of tourism. Similar definitions are also given by Getz (1983), O'Reilly (1986), Coccossis et al. (2001), and Nghi et al. (2007). This concept describes how destinations have utilization boundaries beyond which negative outcomes triggered surpass the positive ones (Williams, 2009). Carrying capacity emerges in insular destinations (Briguglio & Briguglio, 1996; Hampton & Hampton, 2009; Marsiglio, 2017; McElroy & de Albuquerque, 2002). As tourism plays a key role in economic growth of insular destinations, smaller islands' territory and ecosystems are more vulnerable due to their size and fragility (Briguglio & Avellino, 2019).

Tourism landmarks are present in every destination, and overtourism may appear depending on the level of their carrying capacity and seasonality (Weber et al., 2017). As a result, carrying capacity has important management implications (Jovičić & Dragin, 2008; Mexa & Coccossis, 2004; Zelenka & Kacetl, 2014). While undermanagement causes overtourism, anti-tourism protests call for decreases and restrictions on inbound tourism in popular destinations such as Venice, Dubrovnik, Santorini, Barcelona, and Amsterdam (Alexis, 2017). A destination's carrying capacity needs to be accounted for in tourism's spatial arrangement (Milano, 2017; Milano et al., 2018). Similar views are shared by Stanchev (2018), who suggests that policymakers must adopt new tourism policies, regulating cruise ship passengers in the case of Santorini and road access in the case of Cinque Terre, while also using new technology to monitor

Tourist photographing Machu Picchu, illuminated by the last sunlight from above. Machu Picchu is an example of poor tourist policy implementation.

congestion in the case of Amsterdam and Venice. Santorini and the Balearic Islands tackle seasonality by focusing on their off-season attractions; Barcelona, Venice, and Amsterdam monitor the cruise ship routes; and Barcelona, the Balearic Islands, and Amsterdam monitor Airbnb's platform (Stanchev, 2018).

There are several cases in which destinations are able to tackle overtourism successfully (Peeters et al., 2018). Cinque Terre established policy measures for sustainable tourism. Copenhagen created an aggressive allocation strategy to distribute tourists across the city, forbid food establishments in certain parts, created 'silent areas' in residential neighbourhoods, and improved the tourism industry's sustainable green initiatives. Riga's city centre has been considered the cleanest in Europe due to its new environmental policy and specific interventions to reduce overtourism's impacts (e.g., stricter regulations against alcohol abuse and prostitution).

In Stockholm, local stakeholder involvement, effective public transportation development, private accommodation regulations for tourism purposes, and a recycling and environmental plan were all successfully implemented. In 2012, Vilnius promoted its public transportation and bicycle systems by launching its smartphone app, Vilnius Mobile Tourism, to inform tourists through interactive maps, featured sites, and transportation options. On the contrary, destinations such as Bucharest, Dublin, Santorini, Warsaw, and Machu Picchu have been documented as examples of poor policy implementation.

Opposite of overtourism is undertourism, the existence of a lower level of flows related to existing and potential resources. Benavides and Perez-Ducy (2001) argue

A fire truck at Banjul Airport in The Gambia. Tourism in Gambia is uneven, largely restricted to its Atlantic strip.

that services and tourism have some of the best potential for destination development. Lejarraga and Walkenhorst (2006) explain that 'tourism-led growth' is a reality that often outperforms industrial and farming sectors' economic output. Encontre (2001) states that tourism has become one of the major sources of GDP growth in many underdeveloped destinations.

Many less-developed countries that are popular destinations often have unequal tourism allocation, preventing unbiased expansion even on a national scale (Britton, 1982; Jenkins, 1982; Opperman, 1993). For example, in The Gambia, tourism development is largely restricted to the Atlantic strip (Sharpley, 2000).

Another example of regionally uneven tourism development is China, where there is a concentration on the three coastal areas of Shanghai, Beijing, and Guanzhou (Sharpley & Telfer, 2015). However, in both industrialized and less-developed countries, tourism has become an "important and integral element of their development strategies" (Jenkins, 1991, p. 61).

In these contexts, tourism development is a valid vehicle for an independent economic growth and an increase in living standards. It is an opportunity for the local population to improve its income, employment opportunities, and infrastructure (e.g., roads, airports, utilities). Tourism's positive and negative impacts on islands can have

a greater effect than that on the mainland (Croes, 2006, 2011). The magnitude of the economic benefits depends on the quality of the destination's local government and its policies.

In this context, it becomes necessary to pay particular attention to carrying capacity, community involvement, political environment, and special interest activities (Lim & Cooper, 2009). But the benefits will also depend on three elements: geographic proximity to major global markets, early postwar development of international tourism, and longer and more intense periods of colonization that led to the early establishment of basic infrastructure and market institutions (Parry & McElroy, 2009).

Schubert, Brida, and Russo (2011) study the relationship between the growth of tourism demand and that of the economy: an increase in tourism demand leads to an increase in economic growth, as confirmed by the tourism-led growth hypothesis (Durbarry, 2002). Seetanah (2011) finds a two-way relationship between growth in tourism and growth in the economy. Another peculiarity is the focus on sustainable tourism linked to an island's natural environment and the lack of tourist attractions built (e.g., theme parks and museums). Researchers highlight the importance of managing the negative social and environmental impacts of tourism (Chen, 2006; Craigwell & Maurin, 2007; Griffith, 2002; Sharpley, 2003).

While a destination's transformation from luxury to mass tourism may benefit some businesses, it could have a negative impact on locals and their environment if it is not managed well. All of the same products available to tourists are made available to the locals, resulting in a favourable environment for tourism expansion and a high percentage of repeat visitors.

According to Sharpley (2003), mass tourism's promotion has proven to be an effective development vehicle, while promoting sustainable or "quality" tourism might not be as effective as the mass-marketing approach. Kokkranikal et al. (2003) addressed the importance of sustainable tourism development for islands due to their geographic, environmental, structural, and political limitations. This approach proved effective in minimizing tourism's negative impact. Ghina (2003) explored sustainable development's status in small island states, highlighting their challenges such as environmental fragility and economic vulnerability, the former being the main challenge and the latter being dependent on the former.

Tourism planning intends to set policy and budget priorities on issues such as marketing and other common challenges that influence the industry's progress (Crompton & Christie, 2003). Thus, destinations analyze demand and the strengths and weaknesses of their supply, but they rarely explore tourism development's distributional impact or 'what-if' modelling of alternative policy options to propose (Mitchell & Ashley, 2010).

Overtourism is a complex phenomenon strongly affecting the livability of a location and the experiences of various stakeholders (Bellini et al., 2017; McKinsey & Company

and World Travel & Tourism Council, 2017; Milano, 2018; Postma, 2013). Anti-tourism supporters have been predominant in Spain (Milano, 2017, 2018), France (Gravari-Barbas & Jacquot, 2016), Germany (Füller & Michel, 2014; Novy, 2016), and Italy (Vianello, 2016). Consequently, there is no simple solution to tackle overtourism; rather, it requires stakeholders' collaboration and bespoke actions befitting the explicit features of a destination (Milano, et al., 2018).

TOURISM DEVELOPMENT AND INSULAR CONTEXTS

Local development, especially in fragile contexts such as islands, increasingly depends on the tourism industry. Tourism appears the only option for such contexts to overcome the structural constraints imposed by their smaller economies and characteristically difficult conditions of transport connections and supplies. The small nature of these islands means limited natural resources, high propensity to import foreign goods and services, limited opportunities to import substitution options, and an inability for the local population to sufficiently produce the goods and services consumed by its own visitors, neither in quantity nor quality (Sharpley & Ussi, 2014) . Thus, these islands have small markets for domestic products, dependency on export markets, elevated transportation costs, and it is difficult for domestic businesses to take advantage of economies of scale. Furthermore, barriers to economic growth, especially in regards to small island developing states (SIDS), include a significant dependency on foreign aid and cooperation as well as preferential trade agreements.

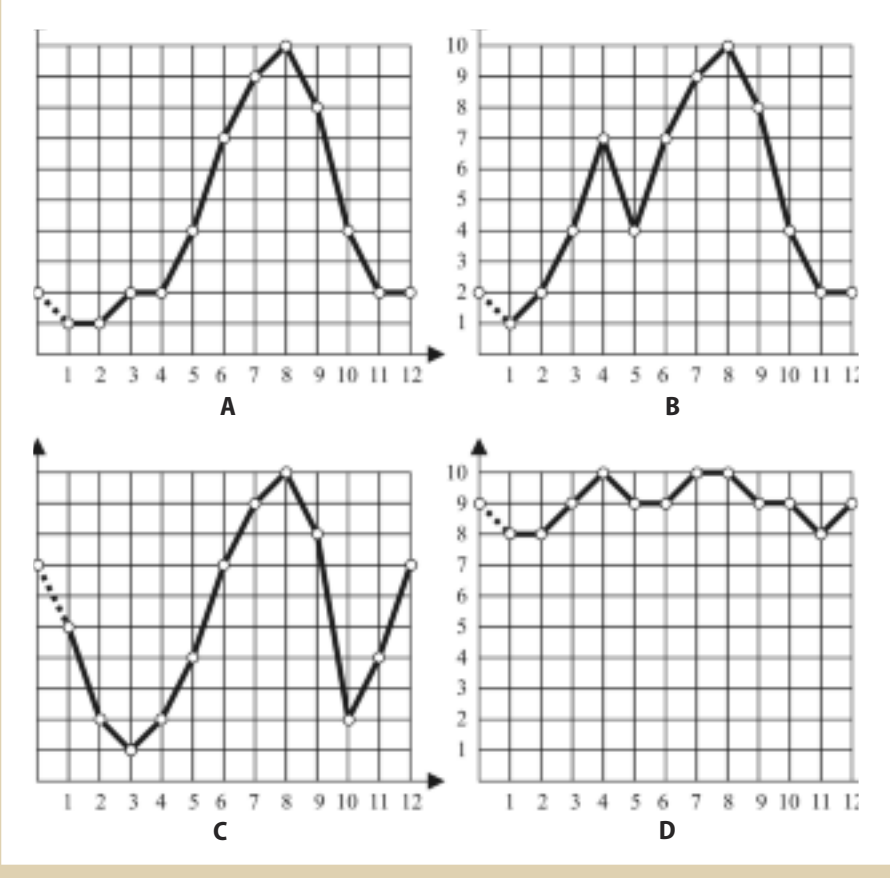
THE SMALL NATURE OF THESE islands means limited natural resources, high propensity to import foreign goods and services, limited opportunities to import substitution options, and an inability for the local population to sufficiently produce the goods and services consumed by its own visitors, neither in quantity nor quality.

Generally, obstacles to an island's development and economic growth are summarized by four factors (Briguglio, 1995; Hampton & Christensen, 2007; Scheyvens & Momsen, 2008):

- small size
- insularity/remoteness
- environmental vulnerability
- socioeconomic elements

Based on an island's characteristics, one can distinguish between and among four situations where tourism demand oscillation determines different conditions and possible policies in the cases of overtourism and undertourism.

FIGURE 3.1: **Graphs Representing the Different Seasonal Trade Activities in Overtourism and Undertourism**



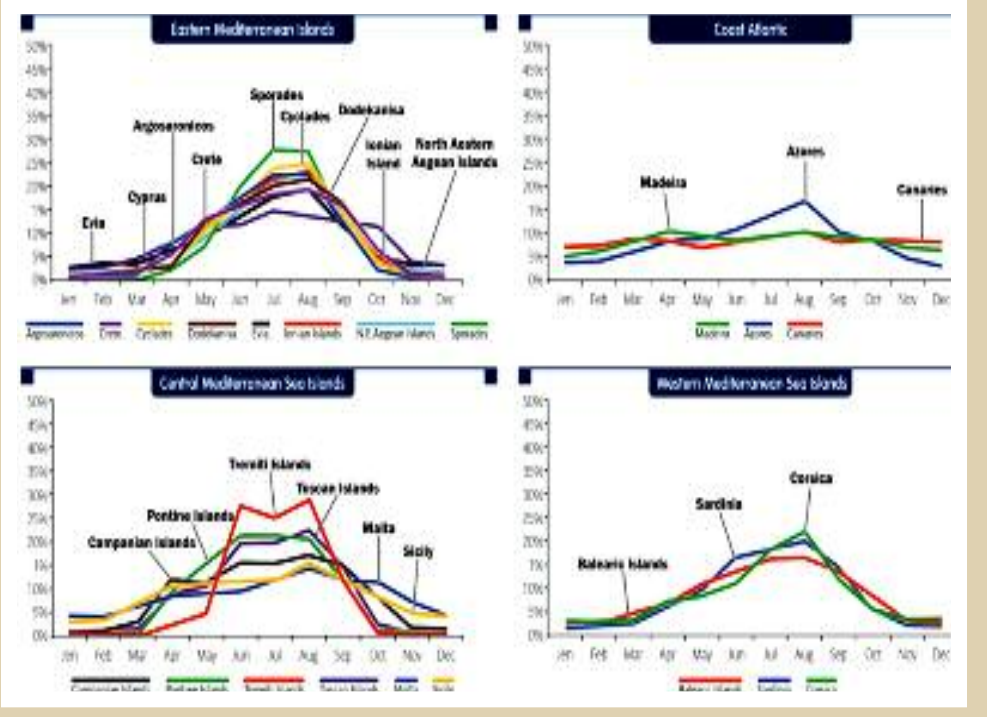
OVERTOURISM = MAXIMUM OCCUPATION IN TOURISM ACCOMMODATION
UNDERTOURISM = MINIMUM OCCUPATION IN TOURIST ACCOMMODATION

Source: OTIE Elaboration (OTIE, n.d.).

In Figure 3.1, Graph A shows overtourism in summer peak season and undertourism in winter off-peak season. Graph B shows an increasing overtourism in spring and summer seasons. Graph C shows the oscillation on overtourism and undertourism with fluctuated peak and off-peak seasons. Graph D shows overtourism and undertourism absence with uniform demand of flows all year round.

These four cases were detected in various groups of islands represented in the following graphs in Figure 3.2

FIGURE 3.2: **Similarities and Differences in Four Regions of the Mediterranean**



OVERTOURISM AND UNDERTOURISM IN THE MEDITERRANEAN

Source: OTIE Elaboration (OTIE, n.d.).

Eastern Mediterranean islands demonstrate a concentration of overtourism in summer peak season and undertourism in winter off-peak season. Western Mediterranean islands show an increase in overtourism in spring and summer peak seasons. Central Mediterranean islands demonstrate an oscillation on overtourism and undertourism in fluctuated peak and off-peak seasons. Coastal Atlantic islands show an absence of overtourism and undertourism with uniform demand of flows all year round.

Emerging from the relevant international literature, then, is the conclusion that the need for new management methods is strictly linked with island destinations' sustainable development. An improved management of flows focuses on an island's carrying capacity, operating towards a dual objective of time and space distribution of existing flows, thus avoiding congestion and consequent negative externalities due to overtourism. A more efficient management of undertourism stimulates a new demand with new flows while respecting a destination's sustainability requirements.

TOOLS AND POLICIES FOR THE MANAGEMENT OF UNDERTOURISM AND OVERTOURISM

There is a lack of literature on ICT applied to sustainable tourism's management. Melville (2010), Dao et al. (2011), and Bajracharya et al. (2013) comment on how the research gap exists around technology's role in developing enterprises' capabilities in supporting sustainability.

Specifically, existing literature has not yet thoroughly investigated the use of ICT in mitigating the negative impacts of tourism and highlighting its positive outcomes. It offers destinations new distribution channels and increases communication and interaction with and between stakeholders (Buhalis & O'Connor, 2006; Gratzer et al., 2002). Mohammad Shafiee et al. (2013) present a conceptual approach in understanding how ICT could be used in sustainable urban tourism through specific development indicators. Analyzing Åre (Sweden) as a case study, Fuchs et al. (2013) present a knowledge-based destination management information system, which can support sustainable development. It consists of a knowledge destination framework based on a web-based infrastructure that collects data and creates and distributes information, thus fostering large-scale intra- and inter-firm knowledge exchange and learning processes among destination stakeholders. This includes knowledge activities dealing with the extraction of information from different sources and generating relevant information for customers and destination stakeholders. The framework includes a supplier-oriented knowledge application, the destination management information system (DMIS) that requires sophisticated technology applications, in particular demanding the establishment of organizational learning.

EXISTING LITERATURE HAS not yet thoroughly investigated the use of ICT in mitigating the negative impacts of tourism and highlighting its positive outcomes. It offers destinations new distribution channels and increases communication and interaction with and between stakeholders.

Integrating private and public stakeholders remains crucial in defining the knowledge requirements. Thus, based on literature reviews and stakeholder inputs, the case of Åre presents a set of indicators defined as follows (Pyo, 2005):

- Economic performance (e.g., bookings, overnights, prices, occupancy, sales)
- Customer behaviour (e.g., website navigation, page views, search terms, consumption, conversion rates, stay duration, cancellations, tracking, nationality, age, gender, transportation, purpose of visit)
- Customer perception and experience (e.g., brand awareness and visibility, knowledge of destination, information sources, destination value areas, seasonal activities, attractions, services, features, atmosphere, social interaction)

The ski area of Åre (Sweden) was used as a case study in understanding how ICT could be used in sustainable urban tourism through specific development indicators.

DMIS provides instant reports through dashboards and analyses, granting destination stakeholders real-time access to the Data Warehouse. Chiabal et al. (2013) focus on facilitating stakeholder participation to develop sustainable cultural tourism through website design using tools such as blogs and forums to create a context of electronic participation in cultural tourism. Stakeholders are thus engaged in public debate about sustainable cultural tourism development strategies in forums, blogs, and focus groups. One of the objectives of this study is to identify specific electronic services that facilitate the enjoyment of cultural heritage. 'Blended focus groups' and integrating face-to-face activities with online discussion are adopted to reach this goal.

Ali and Frew (2013) present an overview of ICT sustainable tourism by conceptualizing it from the perspective of a destination, consumer, and business, with a collection of ICT instruments for its development. Technology and innovation are considered to be the main forces in ensuring sustainability (Scheel & Vázquez, 2011). ICT is an important catalyst for tourism innovation (Hjalager, 2010). Through it, new destination management organization (DMO) roles will be defined. Innovation does not exist simply physically but also in habits and customs, providing a framework where people interact. Improving stakeholder partnerships and an engaged community dialogue underlines the importance of ICT in sustainable tourism innovation.

The analysis of tourism's impact on a destination and its actual scenario needs to be defined with a set of tools to reach sustainable development. Integration between

visitors and locals, social responsibility, and carrying capacity are some of the elements analyzed in many indexes to evaluate tourism's impact on a destination over time. In particular, carrying capacity is considered the most relevant indicator and defined by the World Tourism Organization as "the maximum number of people that may visit a tourist destination at the same time, without causing destruction of the physical, economic and social environment" (1981, p. 4). When the initial framework is set, an efficient and effective strategy needs to be chosen and implemented for either the containment of a negative impact in overtourism or the encouragement of demand in undertourism. New technology plays an important role for its accuracy and global reach in preliminary analyses and flow management.

THE ANALYSIS OF TOURISM'S impact on a destination and its actual scenario needs to be defined with a set of tools to reach sustainable development. Integration between visitors and locals, social responsibility, and carrying capacity are some of the elements analyzed in many indexes to evaluate tourism's impact on a destination over time.

GPS, Wi-Fi, and video are the main technologies used in tools that collect data on tourist behaviour and movement at their destinations. Their functions consist of visitor counts at both destination access points, such as seaports and airports in insular contexts, as well as entrances of specific destination sites such as city centres, archeological locations, and natural and theme parks. The devices can also be set up in specific areas to evaluate the crowd level to support decision-making processes. The quantity of available tools and the quality of their support continues to grow.

A destination is defined as a physical space and geographic area containing products and services consumed by tourists as part of their experience and overseeen by an organization responsible for its management (e.g., DMO). ICT tools supporting a destination's sustainable management of under- and overtourism available are:

1. **Destination management system (DMS)**
   DMO managers view DMS as the most important tool for supporting sustainable development efforts. Its uses are information management, stakeholder exchange, resource management, distribution, tourist education and satisfaction, sustainable consumption, and marketing (Horan & Frew, 2007).

2. **Intelligent transport system (ITS)**
   ITS is an important tool used for tourist satisfaction as it provides energy-saving real-time information and traffic management to identify the safest and quickest routes, assisting navigation and enhancing a destination's enjoyment (Daigle & Zimmerman, 2004).

China is also an example of uneven tourism, with concentration in its coastal areas of Shanghai, Beijing, and Guanzhou. This is the famous Great Wall of China (section Mutianyu), located near Beijing.

3. **Environment management information system (EMIS)**
   Destination managers adopt EMIS as a cost-saving resource and information management tool (El-Gayar & Fritz, 2006). The system reduces the cost of labour due to its automation of previously manual processes. It increases managers' situation awareness of destination managers, allowing them to react more promptly and correctly to scenarios with better decision-making.

4. **Location-based service (LBS)**
   LBS has a variety of functions, including that of providing tourists with real-time geographic location information (Berger et al., 2003; Liburd, 2005). It assists a destination's resource management as it can market and inform users on sites and attractions to visit, and educate them on how to travel and behave in environmentally vulnerable spots to maintain their ecosystem. This helps tourists' decision-making in product consumption (Liburd, 2005).

5. **Global positioning system (GPS)**
   GPS is useful for tracking and analyzing tourist movements and site identification (Shoval & Isaacson, 2006). Managers use its information to develop a destination's site and attraction plans, ensuring an improvement in an environmental impact's management through 'load balancing'.

6. **Geographical information system (GIS)**
   Managers use GIS for a destination's tourist mapping and profiling as they monitor a destination by using the system's information to assist in visitor management techniques (Lau & McKercher, 2007). GIS supports a DMO in transport planning and route identification (Lew & McKercher, 2005). It provides locals and tourists with the best destination routes. Its economic benefits derive from information management and coordination. DMOs also apply it to data integration and mapping as it provides a clearer view of a destination's conditions, thus improving the managers' decision-making processes.

MANAGERS USE COMPUTER simulation (CS) to predict trends through simulated scenarios such as climate change and illustrating environmental changes caused by tourists . . . [then] use this information to make decisions that have the most environmentally favourable long-term effects, increasing a destination development's sustainability.

Furthermore, managers use computer simulation (CS) to predict trends through simulated scenarios such as climate change and illustrating environmental changes caused by tourists (Lawson, 2006). Managers can analyze realistic images of what future tourism development may become under varying conditions, using this information to make decisions that have the most environmentally favourable long-term effects, increasing a destination development's sustainability.

CONCLUSION

Tackling seasonality and extending tourism seasons are essential in the creation of tourism development that is sustainable and competitive (Petrevska, 2013). Areas of high tourism attraction on islands and in seaside cities are reaching their carrying capacity, with direct impacts not only on urban and natural environments but also on key immaterial elements such as social effects on locals and their propensity to interact with tourists. There needs to be a balance between the economic growth source of a tourist attraction on one hand, and preserving what is special about it on the other. The final objective is the local development's improvement through tourism that values and respects local identity and heritage.

A type of tourism that is both sustainable and commercially viable may appear to be difficult to achieve, but numerous policies that detect seasonality make this goal more easily reachable. Efforts to decrease tourism volatility's consequences include reducing the concentration of human activity in hotspots through the diversification and redistribution of products and services offered by a destination, promoting different paths and activities, reinforcing island identity, and enhancing the coordination between public and private stakeholders to develop new business opportunities. Thus, an alternate tourism strategy should act on different levels depending on specific issues confronted:

- land use planning (e.g., built environment, planning methods)
- transportation, mobility, environmental sustainability (e.g., landscape, nature, energy, waste)
- economic sustainability (e.g., growth, measures, services structure, operational environment)
- social sustainability (e.g., housing, well-being, local culture)

Furthermore, advances in ICT help improve destination management and promotion, especially in cases of flow management issues and sustainable development necessities. Managers can apply ICT to promote insular destinations during the low season, map existing hiking paths in an island's currently unpopular central land, measure smart solutions' impact on visitors (e.g., electronic access control and counting equipment), expand and connect tourist areas with other destination zones, and develop a DSS that can identify the optimal tourist pressure level and outline an appropriate strategy. Undertourism and overtourism could appear to be two different complementary aspects of the same issue. There is often a need to transfer overtourism's seasonal and locational flows to other seasons and locations characterized by undertourism. The new ICT tools offer the relevant support to tourism analysts and stakeholders (Ruggieri & Calò, 2018).

REFERENCES

Ahmad, F., Draz, M.U., Su, L., & Rauf, A. (2018). Taking the bad with the good: The nexus between tourism and environmental degradation in the lower middle-income Southeast Asian Economies. *Journal of Cleaner Production*, *192*(233), 1240-1249.

Alexis, P. (2017). Over-tourism and anti-tourist sentiment: An exploratory analysis and discussion. *Ovidius University Annals, Economic Sciences Series, 17*(2), 288-293.

Ali, A., & Frew, A.J. (2013). *Information and communication technologies for sustainable tourism.* Oxford: Routledge.

Archer, B., Cooper, C., & Ruhanen, L. (2005). The positive and negative impacts of tourism. *Global Tourism, 3,* 79-102.

Bajracharya, B., Cattell, D., McPhee, D., Too, L., & Khanjanasthiti, I. (2013). Sense in the city: Making the Gold Coast an intelligent and sustainable city. In V. Gonzalez, & K. Morgan (Eds.). *Proceedings of the 38th Australian University Building Educators Association Conference* Auckland: University of Auckland.

Bar-On, R.R.V. (1999). The measurement of seasonality and its economic impacts. *Tourism Economics, 5*(4), 437-458.

Bar-On, R.R.V. (1993). *Seasonality. VNR's encyclopedia of hospitality and tourism*. New York: Van Nostrand Reinhold.

Bar-On, R.R.V. (1973). Seasonality in tourism—Part II. *International Tourism Quarterly, 1*, 51-67.

Baum, T. (1999). Seasonality in tourism: Understanding the challenges: Introduction. *Tourism Economics, 5*(1), 5-8.

Bellini, N., Go, F.M., & Pasquinelli, C. (2017). Urban tourism and city development: Notes for an integrated policy agenda. In N. Bellini & C. Pasquinelli (Eds.). *Tourism in the city* (pp. 333-339). New York: Springer.

Benavides, D.D., & Pérez-Ducy, E. (Eds.) (2001). *Tourism in the least developed countries. Proceedings of the Third United Nations Conference on the Least Developed Countries, Maspalomas, Gran Canaria, Spain, 26-29 March 2001.* Madrid: WTO.

Berger, S., Lehmann, H., & Lehner, F. (2003). Location-based services in the tourist industry. *Information Technology & Tourism, 5*(4), 243-256.

Briguglio, L. (1995). Small island developing states and their economic vulnerabilities. *World Development, 23*(9), 1615-1632.

Briguglio, L., & Avellino, M. (2019). *Has overtourism reached the Maltese Islands?* Malta: University of Malta Islands and Small States Institute.

Briguglio, L., & Briguglio, M. (1996). Sustainable tourism in the Maltese Islands. In L. Briguglio, R. Butler, D. Harrison, & L. Filho (Eds.). *Sustainable tourism in islands & small states: Case studies* (pp.162-179). London, UK: Pinter.

Britton, S.G. (1982). The political economy of tourism in the Third World. *Annals of Tourism Research, 9*(3), 331-358.

Bryden, J.M. (1973). *Tourism and development: A case study of the Caribbean Commonwealth.* Cambridge: Cambridge University Press.

Buhalis, D., & O'Connor, P. (2006). Information communication technology—Revolutionizing tourism. In D. Buhalis & C. Costa (Eds.). *Tourism management dynamics: Trends, management, tools* (pp. 196-209). Oxford: Elsevier.

Butler, R. (1994). Seasonality in tourism: Issues and implications. In A.V. Seaton (Ed.). *Tourism: The state of the art* (pp. 332-339). Chichester: Wiley.

Carić, H., & Mackelworth, P. (2014). Cruise tourism environmental impacts—The perspective from the Adriatic Sea. *Ocean & Coastal Management, 102,* 350-363.

Chen, R.J. (2006). Islands in Europe: Development of an island tourism multi-dimensional model (ITMDM). *Sustainable Development, 14*(2), 104-114.

Chiabai, A., Paskaleva, K., & Lombardi, P. (2013). Participation model for sustainable cultural tourism management: A bottom-up approach. *International Journal of Tourism Research*, *15*(1), 35-51.

Chung, J.Y. (2009). Seasonality in tourism: A review. *E-review of Tourism Research, 7*(5), 82-96.

Coccossis, H., Mexa, A., Collovini, A., Parpairis, A., & Konstandoglou, M. (2001). *Defining, measuring and evaluating carrying capacity in European tourism destinations*. Athens: University of the Aegean Environmental Planning Laboratory.

Connell, J., Page, S. J., & Meyer, D. (2015). Visitor attractions and events: Responding to seasonality. *Tourism Management, 46,* 283-298.

Craigwell, R., & Maurin, A. (2007). A sectoral analysis of Barbados' GDP business cycle. *Journal of Eastern Caribbean Studies, 32*(1), 21-52.

Croes, R.R. (2011). Measuring and explaining competitiveness in the context of small island destinations. *Journal of Travel Research, 50*(4), 431-442.

Croes, R.R. (2006). A paradigm shift to a new strategy for small island economies: Embracing demand side economics for value enhancement and long term economic stability. *Tourism Management, 27*(3), 453-465.

Crompton, E., & Christie, I. (2003). Senegal tourism sector study. *Africa Region Working Paper No. 46*, 1-8.

Daigle, J.J., & Zimmerman, C.A. (2004). The convergence of transportation, information technology, and visitor experience at Acadia National Park. *Journal of Travel Research, 43*(2), 151-160.

Dao, V., Langella, I., & Carbo, J. (2011). From green to sustainability: Information technology and an integrated sustainability framework. *The Journal of Strategic Information Systems, 20*(1), 63-79.

Diedrich, A., & García-Buades, E. (2009). Local perceptions of tourism as indicators of destination decline. *Tourism Management, 30*(4), 512-521.

Durbarry, R. (2002). The economic contribution of tourism in Mauritius. *Annals of Tourism Research, 29*(3), 862-865.

El-Gayar, O., & Fritz, B.D. (2006). Environmental management information systems (EMIS) for sustainable development: A conceptual overview. *Communications of the Association for Information Systems, 17*(1), 34.

Encontre, P. (2001). Tourism development and the perspective of graduation from the LDC category. In D.D. Benavides & E. Pérez-Ducy (Eds.). *Tourism in the least developed countries* (pp. 105-122). Brussels: United Nations Conference on Least Developed Countries.

Fuchs, M., Abadzhiev, A., Svensson, B., Höpken, W., & Lexhagen, M. (2013). A knowledge destination framework for tourism sustainability: A business intelligence application from Sweden. *Tourism: An International Interdisciplinary Journal, 61*(2), 121-148.

Füller, H., & Michel, B. (2014). 'Stop being a tourist!' New dynamics of urban tourism in Berlin-Kreuzberg. *International Journal of Urban and Regional Research, 38*(4), 1304-1318.

Getz, D. (1989). Special events: Defining the product. *Tourism Management, 10*(2), 125-137.

Getz, D. (1983). Capacity to absorb tourism: Concepts and implications for strategic planning. *Annals of Tourism Research, 10*(2), 239-263.

Ghina, F. (2003). Sustainable development in small island developing states. *Environment, Development and Sustainability, 5*(1-2), 139-165.

Goodwin, H. (2017). *The challenge of overtourism* (Responsible Tourism Partnership Working Paper).

Gratzer, M., Winiwarter, W., & Werthner, H. (2002, March 14-16). *State of the art in eTourism*. 3rd South Eastern European Conference on e-Commerce, Nicosia, Cyprus.

Gravari-Barbas, M., & Jacquot, S. (2016). No conflict? Discourses and management of tourism-related tensions in Paris. In C. Colomb & J. Novy (Eds.). *Protest and resistance in the tourist city* (pp. 45-65). Oxford: Routledge.

Griffith, W.H. (2002). A tale of four CARICOM countries. *Journal of Economic Issues, 36*(1), 79-106.

Hampton, M., & Christensen, J. (2007). Competing industries in islands—A new tourism approach. *Annals of Tourism Research, 34*(4), 998-1020.

Hampton, M., & Hampton, J. (2009). Is the beach party over? Tourism and the environment in small islands: A case study of Gili Trawangan, Lombok, Indonesia. In M. Hitchcock (Ed.). *Tourism in Southeast Asia: Challenges and new directions*, 286-308. Copenhagen: NAIS Press.

Higham, J., & Hinch, T. (2002). Tourism, sport and seasons: The challenges and potential of overcoming seasonality in the sport and tourism sectors. *Tourism Management, 23*(2), 175-185.

Hjalager, A.M. (2010). A review of innovation research in tourism. *Tourism Management, 31*(1), 1-12.

Horan, P., & Frew, A.J. (2007). Destination eMetrics. In A.J. Frew (Ed). *Proceedings of the travel distribution summit, Europe research conference 2007* (pp. 25-44). London, UK: Axon Imprint.

Jang, S.S. (2004). Mitigating tourism seasonality: A quantitative approach. *Annals of Tourism Research, 31*(4), 819-836.

Jenkins, C. (1991). Tourism development strategies. In L. Lickorish (Ed.). *Developing tourism destinations* (pp. 61-77). Harlow: Longman.

Jenkins, C. (1982). The effects of scale in tourism projects in developing countries. *Annals of Tourism Research, 9*(2), 229-249.

Jovičić, D., & Dragin, A. (2008). The assessment of carrying capacity: A crucial tool for managing tourism effects in tourist destinations. *Turizam, 12*, 4-11.

Kokkranikal, J., McLellan, R., & Baum, T. (2003). Island tourism and sustainability: A case study of the Lakshadweep Islands. *Journal of Sustainable Tourism, 11*(5), 426-447.

Lau, G., & McKercher, B. (2007). Understanding tourist movement patterns in a destination: A GIS approach. *Tourism and Hospitality Research, 7*(1), 39-49.

Lawson, S.R. (2006). Computer simulation as a tool for planning and management of visitor use in protected natural areas. *Journal of Sustainable Tourism, 14*(6), 600-617.

Lejarraga, I., & Walkenhorst, P. (2006). *Of linkages and leakages: How tourism can foster economic diversification (*Draft World Bank report). Washington, DC: World Bank.

Lew, A., & McKercher, B. (2005). Modeling tourist movements: A local destination analysis. *Annals of Tourism Research, 33*(2), 403-423.

Liburd, J.J. (2005). Sustainable tourism and innovation in mobile tourism services. *Tourism Review International, 9*(1), 107-118.

Lim, C.C., & Cooper, C. (2009). Beyond sustainability: Optimizing island tourism development. *International Journal of Tourism Research, 11*(1), 89-103.

Lundtorp, S. (2001). Measuring tourism seasonality. *Seasonality in Tourism, 3*(3), 23-50.

Marsiglio, S. (2017). On the carrying capacity and the optimal number of visitors in tourism destinations. *Tourism Economics, 23*(3), 632-646.

McElroy, J.L., & de Albuquerque, K. (2002). Problems for managing sustainable tourism in small islands. In Y. Apostolopoulous & D.J. Gayle (Eds.). *Island tourism and sustainable development: Caribbean, Pacific, and Mediterranean experiences* (pp. 15-31). London, UK: Praeger.

McKinsey & Company and World Travel & Tourism Council (2017). *Coping with success: Managing overcrowding in tourism destination*. New York: McKinsey & Company and World Travel & Tourism Council.

Melville, N.P. (2010). Information systems innovation for environmental sustainability. *MIS Quarterly, 34*(1), 1-21.

Mexa, A., & Coccossis, H. (2004). Tourism carrying capacity: A theoretical overview. In H. Coccossis & A. Mexa (Eds.). *The challenge of tourist carrying capacity assessment* (pp. 37-53). Hants: Ashgate Publishing.

Middleton, V. T., & Hawkins, R. (1998). *Sustainable tourism: A marketing perspective*. Oxford: Routledge.

Milano, C. (2018). Overtourism, malestar social y turismofobia. Un debate controvertido. PASOS. *Revista de Turismo y Patrimonio Cultural, 6*(3), 551-564.

Milano, C. (2017). *Overtourism and tourismphobia: Global trends and local contexts*. Barcelona: Ostelea School of Tourism & Hospitality.

Milano, C., Cheer, J. M., & Novelli, M. (2018). *Overtourism: A growing global problem.* The Conversation. Retrieved from https://theconversation. com/overtourism-a-growingglobal-problem-100029

Mitchell, J. & Ashley, C. (2010) *Tourism and poverty reduction: Pathways to prosperity.* London, UK: Earthscan.

Mohammad Shafiee, M., Mohammad Shafiee, M., Shams, H., Yahai, M.R., & Golchin, H. (2013). ICT capacities in creating sustainable urban tourism and its effects on resident quality of life. In *Proceedings of the 7th International Conference on e-Commerce in Developing Countries: With focus on e-Security* (pp. 1-11). New York: Institute of Electrical and Electronics Engineers (IEEE).

Nghi, T., Nguyen-Thanh, L., Nguyen-Dinh, T., Mai, D., & Xuan Thanh, D. (2007). Tourism carrying capacity assessment for Phong Nha—Ke Bang and Dong Hoi, Quang Binh Province. *VNU Journal of Science, Earth Sciences, 23,* 80-87.

Novy, J. (2016). The selling (out) of Berlin and the de-and re-politicization of urban tourism in Europe's 'Capital of Cool'. In C. Colomb & J. Novy (Eds.). *Protest and resistance in the tourist city* (pp. 52-72). Oxford: Routledge.

Oppermann, M. (1993). Tourism space in developing countries. *Annals of Tourism Research, 20*(3), 535-556.

O'Reilly, A.M. (1986). Tourism carrying capacity: Concept and issues. *Tourism Management, 7*(4), 254-258.

OTIE. (n.d.). Observatory on Tourism for Islands Economy. Retrieved from http://otie.org

Parry, C.E., & McElroy, J.L. (2009). The supply determinants of small island tourist economies. *The ARA (Caribbean) Journal of Tourism Research, 2*(1), 13-22.

Peeters, P.M., Gössling, S., Klijs, J., Milano, C., Novelli, M., Dijkmans, C.H.S., Eijgelaar, E., Hartman, S., Heslinga,J., Isaac, R., Mitas, O., Moretti, S., et al. (2018). *Research for TRAN*

Committee—Overtourism: Impact and possible policy responses. Brussels: European Parliament, Directorate General for Internal Policies, Policy Department B: Structural and Cohesion Policies, Transport and Tourism.

Petrevska, B. (2013). Empirical analysis of seasonality patterns in tourism. *Journal of Process Management—New Technologies, 1*(2), 87-95.

Postma, A. (2013). *'When the tourists flew in': Critical encounters in the development of tourism* [Unpublished doctoral dissertation]. Faculty of Spatial Sciences, University of Groningen.

Pyo, S. (2005). Knowledge map for tourist destinations. *Tourism Management, 26*(4), 583-594.

Rodrigues, P.M., & Gouveia, P.M. (2004). An application of PAR models for tourism forecasting. *Tourism Economics, 10*(3), 281-303.

Ruggieri, G., & Calò, P. (2018). ICT and tourism impacts in islands. *Ecocycles, 4*(2), 4-11.

Ruggieri, G., & Vázquez, F.J.C. (2017). Tourism development in UNESCO natural heritage sites—The case of Sicilian volcanic sites: Mount Etna and Aeolian Islands. *Chinese Business Review, 16*(11), 544-554.

Scheel, C., & Vázquez, M. (2011). The role of innovation and technology in industrial ecology systems for the sustainable development of emerging regions. *Journal of Sustainable Development, 4*(6), 197.

Scheyvens, R., & Momsen, J.H. (2008). Tourism and poverty reduction: Issues for small island states. *Tourism Geographies, 10*(1), 22-41.

Schubert, S.F., Brida, J.G., & Risso, W.A. (2011). The impacts of international tourism demand on economic growth of small economies dependent on tourism. *Tourism Management, 32*(2), 377-385.

Seetanah, B. (2011). Assessing the dynamic economic impact of tourism for island economies. *Annals of Tourism Research, 38*(1), 291-308.

Seraphin, H., Sheeran, P., & Pilato, M. (2018). Over-tourism and the fall of Venice as a destination. *Journal of Destination Marketing & Management, 9,* 374-376.

Sharpley, R. (2003). Tourism, modernisation and development on the island of Cyprus: Challenges and policy responses. *Journal of Sustainable Tourism, 11*(2-3), 246-265.

Sharpley, R. (2000). Tourism and sustainable development: Exploring the theoretical divide. *Journal of Sustainable Tourism, 8*(1), 1-19.

Sharpley, R., & Telfer, D. J. (Eds.). (2015). *Tourism and development: Concepts and issues* (Vol. 63). Clevedon: Channel View Publications.

Sharpley, R., & Ussi, M. (2014). Tourism and governance in small island developing states (SIDS): The case of Zanzibar. *International Journal of Tourism Research, 16*(1), 87-96.

Shoval, N., & Isaacson, M. (2006). Tracking tourists in the digital age. *Annals of Tourism Research, 34*(1), 141-159.

Stanchev, R. (2018). *The most affected European destinations by over-tourism*. Palma: University of the Balearic Islands Faculty of Tourism.

Tribe, J. (1999). *The Economics of leisure and tourism*. Oxford: Butterworth-Heinemann.

Vázquez, F. J. C., & Ruggieri, G. (2011). Relational tourism: Challenges and potentials. *Turismo y Desarrollo: Revista de Investigación en Turisme y Desarrollo Local, 4*(9), 1-14.

Vianello, M. (2016). The no Grandi Navi campaign: Protests against cruise tourism in Venice. In C. Colomb & J. Novy (Eds.). *Protest and resistance in the tourist city* (pp. 185-204). Oxford: Routledge.

Vogel, H.L. (2001). *Travel industry economics: A guide for financial analysis*. New York: Cambridge University Press.

Weber, F., Stettler, J., Priskin, J., Rosenberg-Taufer, B., Ponnapureddy, S., Fux, S., Camp, M.-A., & Barth, M. (2017). *Tourism destinations under pressure. Challenges and innovative solutions.* Lucerne: Lucerne University of Applied Sciences and Arts.

Williams, S. (2009). *Tourism geography: A new synthesis.* Oxford: Routledge.

World Tourism Organization. (1981). *Saturation of tourist destinations* (Report of the Secretary General). Madrid: WTO.

Yacoumis, J. (1980). Tackling seasonality: The case of Sri Lanka. *International Journal of Tourism Management, 1(*2), 84-98.

Zelenka, J., & Kacetl, J. (2014). The concept of carrying capacity in tourism. *Amfiteatru Economic Journal, 16*(36), 641-654.

The houses in the old streets of Singapore feature combined Malay, Chinese, and Indian architecture.

4

Landscapes, peoplescapes, and mindscapes in island tourism

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ABSTRACT

At a fundamental level, all tourism development and promotion activities are 'placemaking', which is the intentional creation of a sense of place for commercial purposes. A few destination marketing organizations (DMOs) are aware of this and intentionally incorporate placemaking approaches into their tourism goals and objectives. Most DMOs, however, are only peripherally aware of the placemaking concept, even though they are

doing it all the time. A comprehensive and intentional approach to placemaking needs to consider three key aspects about a destination: (1) its natural environment and built landscape; (2) the people who are a living culture in that landscape (its peoplescape); and (3) the mental image and beliefs that people hold of the destination (its mindscape). Island tourism destinations often have advantages in these three areas because they are more easily conceptualized as distinct places due to their bounded nature. However, this also means that their identity may be more difficult to change. A placemaking approach can help to understand the existing identity of a place and how it came to be, and it can be used to reshape that identity to create new opportunities through tourism.

WHY ISLANDS?

Islands are something that we identify through their being physically and clearly separated from a 'mainland' by some kind by water. Geographic isolation of this type is one of the primary drivers of cultural differentiation. When two groups of the same people experience geographic separation, their cultures will usually innovate and evolve in different directions. The barriers that separate people geographically can vary considerably in their degree of porosity, with some barriers being strong and uncrossable, and others less so. Strong physical barriers include uninhabitable mountains, deserts, and waterways. Sociocultural barriers also exist, such as political borders and language barriers, but these often come after cultural differentiation has been created through physical barriers and are more likely to be less porous.

ISLANDS ARE POPULAR tourist attractions because they are recognized, very obviously, on a map as being special places that are different from their mainland where most people live.

The cultural differences that emerge through separation lead to 'othering'. Othering is mostly considered a negative behavioral trait that is associated with stereotyping, discrimination, and exploiting those who are not 'one of us'. However, othering is also the basis of diversity, discovery, and potential connection. The entire tourism phenomenon is based on othering, mostly as seen through differences between home and away. Islands are popular tourist attractions because they are recognized, very obviously, on a map as being special places that are different from their mainland where most people live; and all those mainland people are potential tourists.

Thus, islands are different places from the mainland with which they are associated. Recognizing and celebrating this difference can enhance an island's sense of place, which is a geographic advantage over a mainland. Today's world, however, is rapidly shrinking under the expanding influence of economic, technological, and cultural globalization. One of the characteristics of globalization is homogenization (or flattening)

of differences between places (Hall & Lew, 2009). Globalization is considered bad when local cultures and landscapes are replaced by global ones, resulting in 'placelessness' (Relph, 1976). If a sociocultural landscape is indistinguishable from those found anywhere in the world, then it is considered 'placeless', lacking a 'sense of place', and inauthentic (Tuan, 1977).

Tourism is a major contributor to globalization because it commodifies places—makes them into something that can be sold to tourists. Commodification often leads to negative outcomes because most tourists seek to buy predictable experiences that make them feel comfortable and safe, and that give them a sense of value. Even if they want a deeper understanding and more meaningful and personalized experience of at least some of the places they visit, the tourism industry finds it easier and more profitable to sell products that are packaged and designed for mass consumption.

The best tourism places are those that offer mass tourism products but also provide opportunities for individual explorations and unanticipated discoveries (Lew, 2011). In fact, almost all places have a mix of mass and individualized tourism products (and non-tourism products). The challenge is for destination marketing organizations (DMOs) to embrace and support the full range of place making practices that make a destination a real and authentic place for both tourists and residents (Kolås, 2004).

For island destinations, place making can be easier than for mainland destinations because they are often already seen as 'different' in many ways. Therefore, the goal would be to identify those differences and find ways to capitalize on them. On the other hand, islands are often in an inferior position to their mainland in terms of capital and human resources, which can make placemaking more challenging. They can, for example, be characterized as impoverished and easily exploitable. Exploitation can increase placeless globalization. This is especially apparent in some colonial contexts, such as in the Caribbean and Hawai'ian islands, where Euro-American cultural dominance has erased most forms of indigenous place identities. Changing that type of place image can be challenging.

PLACE MAKING

Islands come in many forms: large and small, tall and flat, warm and cold, near and far, crowded and uninhabited, and privately owned and not owned. Some islands, especially those more isolated from globalization, are also largely homogeneous in their internal cultural and social landscape. Others, especially those that are dependent on a global tourism economy, are more mixed. For example, tropical tourism islands usually contain a mix of (1) tourist-oriented spaces (accommodations and visitor services) and (2) local-oriented spaces (residences and local services). These two social spaces may be further divided into different types, such as low, middle, and upper-class status groups, each of which expresses its sense of place through a specific set of physical and behavioral characteristics.

From a tourism destination marketing perspective, for example, a tropical island is primarily: a beach, the sun, sunsets, swimming, surfing, snorkeling, diving, bathing suits, tropical fish, sharks, thatched roofs, water bungalows, resorts, infinity pools, native dancers and performers, and seafood. From a local, non-tourism perspective, a tropical island is most likely to be characterized by: high prices, low incomes, limited food choices, limited fresh water resources, transportation challenges, plywood walls, corrugated tin roofs, many young children, limited educational opportunities, isolation, disempowerment, legal and illegal immigrants, and tourism service jobs.

The adjectives associated with these two island perspectives are key elements in the place making of these two communities. Humans create places by assigning significance to certain parts of the geographic space that surrounds them. According to Yi-Fu Tuan (1979, p. 410), "People demonstrate their sense of place when they apply their moral and aesthetic discernment to sites and locations." Humans create geographic space through their perceptions, primarily sight, sound, and movement. As space is being created, places are also being created through the selection, based on preferences, of certain items or locations, and giving them meaning, including various forms of goodness and badness. This is the process of place making.

PLACE MAKING IS THE PROCESS of producing, designing, crafting, creating, or otherwise bringing into being the material and experiential elements of a place landscape.

Place making, therefore, is the process of producing, designing, crafting, creating, or otherwise bringing into being the material and experiential elements of a place landscape. Everyone does place making (i.e., everyone is a participant in place making) through the continuing process of expressing their preferences in the geographic space they inhabit. This includes humans, non-human animals/wildlife, plants/vegetation, buildings, economic and business structures and activities, recreation facilities and activities, and much more. The Japanese use the word *satoyama* to refer to how everything is interrelated in rural, agricultural landscapes. There is no good word for this in English, although Doreen Massey (2005, p. 149-52) suggested "thrown*together*ness", which includes the idea that things that are seemingly unrelated to each other are actually related, though perhaps at levels that are not always obvious.

PLACEMAKING AND PLACE-MAKING

The comparison of tourism-oriented and resident-oriented place characteristics on tropical islands, listed above, reflects a dualism between top-down and bottom-up perspectives on place making. Lew (2017) suggested that the single word spelling of 'placemaking' should reflect the top-down approach (because this spelling has become widely used by urban planners and urban designers in North America), while the spelling

'place-making' should be assigned to the bottom-up approach. Table 4.1 shows how, as a 'polar world pair', placemaking and place-making reflect a fundamental tension of human existence, encompassing a broad range of experiences, processes, and environments.

TABLE 4.1: **A Place Making Continuum**

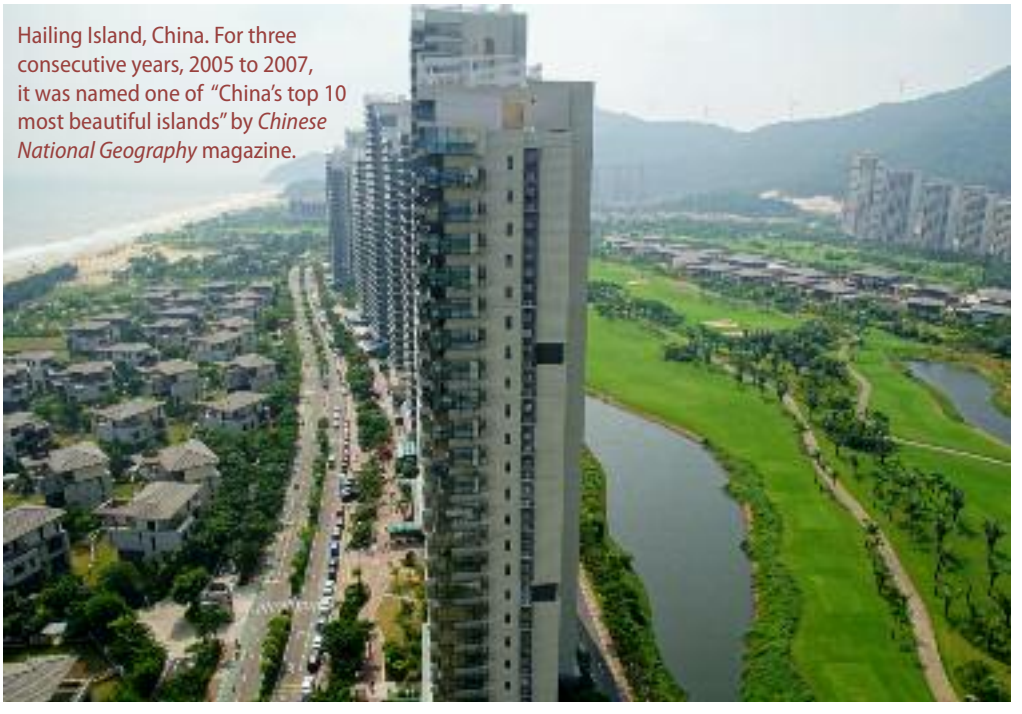
	Placemaking (PM)	**Mixed Place Making (P_M)**	**Place-Making (P-M)**
Driver of Change	Top-Down, Government, Developers, Outsiders	NGOs/NPOs, Collaborations	Bottom-Up, Individuals, Local Groups, Insiders
Symbolism	Cosmopolitan, Modern or Global	Glocalization	Local or Traditional
Process of Change	Master Planned, Intentional, Legal System	Public Participation, Co-Design	Organic, Spontaneous, Incremental, Personal
Security	Safe, Known, Predictable, Familiar		Risk, Uncertainty, Surprise, Escape
Tourist Experiences	Recreation, Leisure, Mass		Novelty, Exotic, Unique, Individual
Social Space	Front Region, Group Think, Commercial, Tourism	Co-Management	Back Region, Individuality, Non-commercial, Private
Authenticity	Inauthentic, Contrived, Fantasy, Disneyfication	Constructed or Staged Authenticity	Objective Authenticity, Real
Transformation	Rapid Change, Efficient		Slow Change, Inefficient
Tourism Area Life Cycle (TALC) Stage	Consolidation	Involvement, Development	Discovery, Exploration
Capacity	Large / High Capacity		Small / Low Capacity
Semiotics	Socially Constructed		Self-Constructed

Source: Based on Lew, 2017.

Situations that comprise a purely top-down placemaking process and those that are purely bottom-up place-making are extremely rare. Placemaking is usually a mix of top-down and bottom-up, although in most instances, either the top is the primary agenda-setting source or the agenda is set mostly from the bottom. In fact, even the most individual and personal bottom-up place-making acts still take place within, and are therefore shaped by the social system of rules and expectations within which a person is embedded. Similarly, even a cruise ship (which may be the most top-down tourism placemaking experience of all) adjusts its itinerary, marketing, and onboard themes to reflect the destinations that are also an integral part of its sense of place experience (except maybe for 'cruises to nowhere').

People and groups typically have preferences for place making or place-making. But whether one is 'better' than the other depends entirely on the development context of each situation, including the needs, priorities, and goals that are most evident. These goals are relatively easy to identify in some cases. In most cases, however, there are numerous competing interests and goals, which is an indicator that dialogue and a middle path of mixed placemaking and place-making is warranted.

As indicated in Table 4.1, all government actions are essentially top-down place-making, no matter the degree of public participation involved. This is because such actions are pre-planned with defined political goals and strategic methodologies. ('Political' here refers to the process of allocating limited social resources.) Citizen participation may be one of those goals, but it is public nonetheless. Similarly, all tourism



Hailing Island, China. For three consecutive years, 2005 to 2007, it was named one of "China's top 10 most beautiful islands" by *Chinese National Geography* magazine.

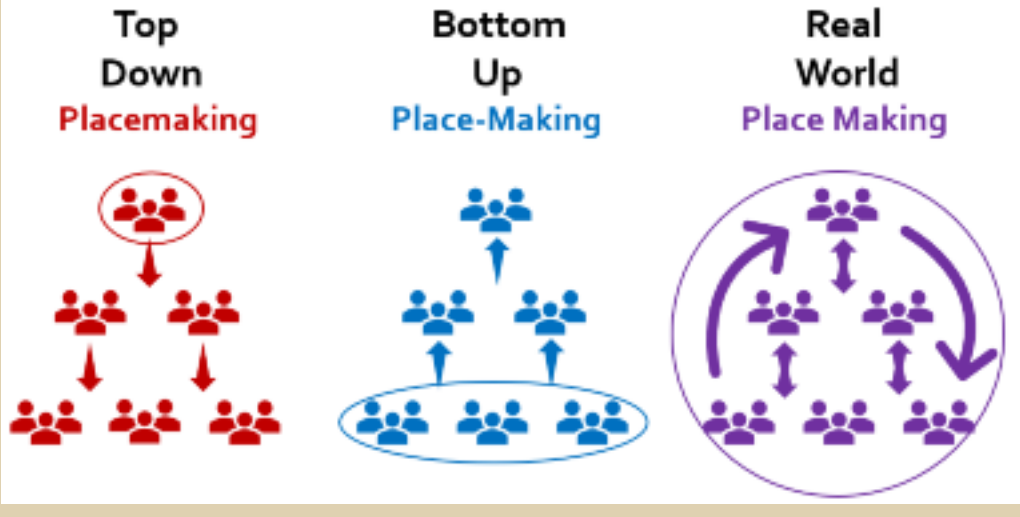
activities are essentially top-down placemaking because their objective is to commodify a place and its resources for economic development through tourist consumption. Deciding which resources and how to commodify them is similarly a political process.

Most of the top-down placemaking literature assumes a strong role for citizen participation. The focus is on techniques to ensure bottom-up participation in the mostly top-down function of urban planning and urban design (Cilliers & Timmermans, 2014; PPS, 2015; Wyckoff, 2015). It is crucial, therefore, to recognize the multiple pathways of communication and collaboration that comprise a comprehensive, effective, meaningful, and real-world place making process (Figure 4.1).

This collaborative and co-management approach seen, for example, in the Singapore Tourism Board (STB), which identifies placemaking as one of the key activities that it does (others include marketing, industry development and regulation, and capabilities development/ training):

> *The Singapore Tourism Board (STB) together with various government agencies, precinct associations and private stakeholders, convene in a coordinated effort to spearhead, develop and implement various place-making [sic] initiatives, such as festivals, marketing initiatives and infrastructure improvements, with the aim to improve visitor experience and inject vibrancy to bring the precinct to life.*
> (STB, 2016, p. 1)

FIGURE 4.1: **Top-down, Bottom-up, and Real World Place Makings**



Source: Author

TYPES OF TOP-DOWN PLACEMAKING

The urban planning literature identifies four types of placemaking that city planners can use to help a community define its sense of place and identity. These types focus on the physical design of public spaces (e.g., roads, sidewalks, public plazas, and public parks) within a community, as these are the parts of a community over which urban planners and city governments have more direct control.

1. **Standard placemaking** is the regular maintenance and incremental improvement to public spaces and public infrastructure. This might include adjusting streets, sidewalks, and interchanges to meet the needs of changing traffic patterns, for example, or updating the recreation and play facilities in a park with newer and more innovative designs. When the other three forms of placemaking (below) are more incremental and almost unseen in their implementation, they are likely to be a form of standard placemaking, rather than a significant change toward intentional placemaking transformations or enhancements.
2. **Creative placemaking** is the use of public art to enhance the attractiveness and interest of a place. This can include murals and other public paintings, statues and fountains, decorative street furniture (benches, lights), the use of thematic signage, public performances, and other activities that bring the art communities into greater public view (Markusen & Gadwa, 2010; Richards, 2014). These can be small or large, and permanent, seasonal, or temporary. Creative placemaking is also a way to financially support the arts and artists in a community, and is often funded through arts organizations, such as the National Endowment for the Arts in the US.
3. **Strategic placemaking** is the use of government funds to invest in a major public development project that is intended to be a catalyst for subsequent private investments and change in a place (Shaw & Montana, 2016). This often takes the form of an urban renewal project, in which the government purchases a large tract of land then sells all or part of it to a single developer with clear guidelines on the type of development that is desired. Public plazas or pedestrian-only streets, major league sports arenas, large museums and aquariums, and significant entertainment and shopping centres are examples of common ways that this is done.
4. **Tactical placemaking** refers to activities taken by residents to create design changes in their communities, outside of the local government system. Examples include neighbours taking over an unused empty parcel of land to create a community garden or a recreational park, without the approval of the government or maybe even the land's owner. Street parking spaces have

also been used to create temporary parks, sometimes with government approval (Wyckoff et al., 2015). In some cities, residents painted and made signs for bicycle lanes on some major streets when their requests to government for such lanes have been ignored. These actions tend to be short-lived because they are often done without proper approvals. However, they may become permanent in the long term.

The Singapore Tourism Board is not an urban planning agency, and the types of placemaking activities they engage in are somewhat different. Of the three placemaking activities listed on the STB website, 'infrastructure' is aligned with standard placemaking, but 'festivals' and 'marketing' do not align with the urban planning network. This difference points to a fifth type of placemaking, and possibly the one that is most crucial to tourism.

A restaurant on the water on Gili Trawangan, Indonesia, with Bali in the distance, provides an iconic place image of island tourism.

5. **Story placemaking** is the many ways that an image and identity comes to be associated with a place beyond the physical design elements (Dredge & Jenkins, 2003; Gottdiener, 2001). The story of a place can be captured in its physical and visual design, but it can be much more than that. One way to conceptualize story placemaking distinguishes between authentic stories and mythical stories.

    a. ***Authentic story placemakings*** are place identities that are mostly based in historical events and famous people that have been associated with a place. Broader regional or national heritage is also a part of this. The DMO marketing image of place may be considered part of this type of authentic story that a place tells the world, whether the world agrees with that story or not. The world may have its own story to tell of a place, which nowadays is reflected in a place's social media and word-of-mouth reputation.

b. ***Mythological story placemakings*** are identities that come to be associated with a place, mostly through fictional fairy tales, legends, novels, movies, and other forms of entertainment. Some of these stories may be very old, while others are very new. Many have strong staying power, while others may be very short-lived in the public's imagination. These may not be 'authentic' in their place representations, but they do contribute to a sense of place and are a commodification opportunity.

TOURISM PLACES THAT HAVE a clear and positive image and identity, a strong sense of place, a successful tourism economy, and a supportive local community are often those that have effective collaborations among government planners, the tourism industry, and local residents.

These five types of placemaking provide an overall framework in which community development (urban planning) interfaces with tourism development. In most tourism-oriented communities, urban planners and tourism interests are aware of their mutual placemaking interests. Tourism places that have a clear and positive image and identity, a strong sense of place, a successful tourism economy, and a supportive local community are often those that have effective collaborations among government planners, the tourism industry, and local residents (as shown in the "Real World Place Making" in Figure 4.1).

PLACEMAKING TOOLS

The five types of placemaking apply to the urban planning and destination marketing of a neighbourhood, community or city, and even an island. Places are experienced daily by residents and visitors at a very personal level. This involves the disciplines of architecture and landscape architecture because it encompasses micro-scale design and embodied representations of culture and place. Table 4.2 generalizes these representations into three place making tool types: tangible physical landscapes, intangible mental mindscapes, and mixed peoplescapes. A comprehensive and intentional approach to placemaking needs to consider these three aspects through the five forms of placemaking described above.

Landscapes encompass all the tangible physical elements of the world we live in. This may be divided into natural landscapes and built landscapes. Culture is, of course, embedded in both natural and built landscapes. 'Tangible' refers to anything that can be seen, heard, touched, tasted, smelled, or otherwise experienced through embodied senses by most people. Table 4.2 emphasizes physical elements in urban, built landscapes, and these elements exist whether they have mostly emerged from top-down

placemaking or bottom-up place-making. Standard, Creative, Strategic, and Tactical types of placemaking are all mostly using landscape tools to create top-down place identities.

Peoplescapes are the living human or cultural landscapes of a place. This includes sensorial perceptions of the people in a place (e.g., how they look and sound), and their practices—what they do and how they move, behave, and express their identities through body, voice, and symbolic actions. Such practices are open to considerably greater degrees of emotional and interpretive responses than are pure sensorial experiences of the colours and designs they wear and exhibit. Food, for example, is included as a peoplescape to the degree that an individual is cooking, serving, and eating part of their identity through food. As with landscapes, peoplescape elements can reflect either a mostly top-down placemaking or bottom-up place-making agenda. However, it is usually much easier to distinguish between less-authentic top-down and more authentic bottom-up variations in peoplescapes (Dyck, 2005; Lems, 2016).

Mental image mindscapes are closely associated with the Story type of placemaking, as can be seen in Table 4.2. They are the mental images that people hold of a place and are generally created and manipulated through the tools listed. For larger and more

TABLE 4.2: **Placemaking Tools**

Tangible	Mixed	Intangible
Physical Design (Landscapes & Builtscapes)	***People Practices*** (Ethnoscapes & Peoplescapes)	***Mental Image*** (Mindscapes & Storyscapes)
Street Furniture	Festivals & Special Events	Branding, Marketing, Advertising & Public Relations
Sidewalk & Street Width & Pavement	Street Life; Local Dress	History & Heritage: Famous People & Events
Building Architecture, Height & Facades	Type of Shops & Products for Sale	Myths: Fairy Tales, Legends, Fiction Novels
Plants & Greenery	Foods & Drinks	Social Media & Word of Mouth Reputation
Building Colour, Art & Signage Themes	Aural (sound) & Olfactory Sensations (smell)	Movie & Entertainment Tourism
Bikeways & Parking	Shop Advertisements	News Stories
Open Space: Parks & Plazas	Formal & Informal Entertainment	
Public Art & Monuments		

complex places, they become increasingly multilayered and contradictory. Top-down placemaking mindscapes can risk being inaccurate in the eyes of either a resident or visitor, or both. However, even the smallest place has a mindscape (as well as a landscape and a peoplescape) created through both the mundane daily stories that residents tell of themselves, as well as the more renowned stories (Chen & Chen, 2017). Learning and experiencing the bottom-up mindscapes of a place is one way that outsiders (visitors/tourists) gain a sense of existential insideness (Relph, 1976). Hollinshead et al. (2009) situated placemaking within the broader concept of worldmaking, which also includes people-making and past-making, and reflects the mythologies that all social groups hold of themselves.

PLACEMAKING TOOLS IN KEY WEST, FLORIDA

Key West is the most southern island and community of the Florida Keys in the US, and is often characterized as the most Caribbean place in the country and the most tropical place in the continental US (excluding Hawai'i). Figure 4.2 is a photo taken on Duval

FIGURE 4.2: **Placemaking in Key West, Florida**

Street, the main tourist street in Key West. The placemaking elements that are visible in this image include:

Landscapes: Pastel colours are found on the buildings and the signage. The parrot is brighter in colour, but the same shades of red and blue. The parrot handler is wearing a tie-dye T-shirt that also matches these colours. The signage colours, wood material, and store names all support the Caribbean theme. The building façades are historic (in the background on the right) and quaint (on the left). The sidewalks are wide and the walkpath is clear, which encourages walkability. The trees in the background, while manicured, are tropical (although this is not so clear in the photo).

Peoplescapes: Almost all the people are dressed to support the tropical Caribbean island theme. The men are all wearing shorts. One woman is wearing a 'surf' T-shirt, which is the clearest example of tourist co-creation, as the clothing further accentuates and supports the place image of Key West. The parrot street vendor is wearing khaki shorts and provides 'Jungle Photos of Key West' by allowing people to pose with the parrot. Behind the bikes is a jewelry vendor providing a local crafts product theme. The tourist interaction with the parrot provides an element of touchability as well.

Mindscapes: Both the café and store build on the brand image of the singer Jimmy Buffett's song, 'Margaritaville'. These signs invoke a famous entertainer and a popular song that evokes images of the Caribbean. There is also a designer clothing shop in the background which, while not necessarily Caribbean, helps to define the types of tourist that this destination seeks.

Beyond Figure 4.2, Key West builds upon its tropical climate, its location surrounded by the Gulf of Mexico and the Atlantic Ocean, its proximity to Caribbean islands and as a cruise ship stopover, its built heritage of historic older buildings, its historic ties to the author Ernest Hemingway, deep sea recreational fishing, and beaches and waterfront landscapes. Thus, place making is well evolved, well defined, and mostly well subscribed to, although there are exceptions. Not all islands have as clearly a defined identity as Key West does. In those cases, placemaking needs to be a tool to create a desired place identity, or perhaps more accurately, to discover an existing core identity that is presently obscured by competing stories and goals.

PLACEMAKING NEEDS to be a tool to create a desired place identity, or perhaps more accurately, to discover an existing core identity that is presently obscured by competing stories and goals.

HOW TO RESEARCH PLACE MAKING

Conceptually, place making (including both placemaking and place-making) considers all elements (human and non-human, and tangible and intangible) in a place, however that is defined, as being interrelated and co-creating the place that they are a part of. Boundaries between places are constructed to reflect the values and interests of the perspective that defines the boundary, which may be political and legal (reflecting formalized agreements), cultural, or biophysical. Scale is also a key component in defining what is part of a place and is not part of a place. Even then, what is not part of a place still exists in relationship to the place as a set of external variables.

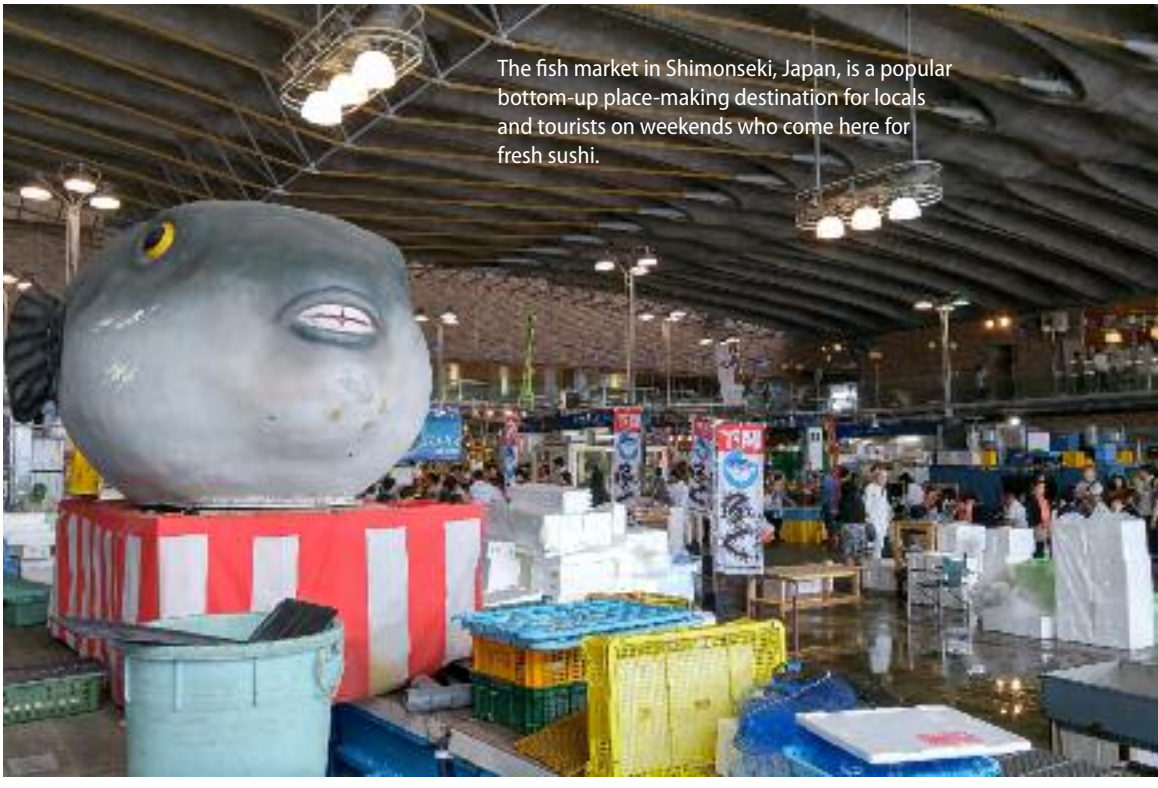
Typical place entities include a country, a region, a city, a neighbourhood, and a street. Most of the time, the selection and definition of a place are taken for granted; therefore it is not subject to reflexive analysis. This taken-for-grantedness is also driven by who is doing the research (or who it is being done for) and what their interests are. Even tourism-related place making research would vary between an emphasis on economic development and cultural preservation, for example.

The deep interrelationship of all elements in the place making process requires a research methodology that is equally comprehensive and relational. Two possible approaches to understanding place making are systems modeling and actor-network theory (ANT). Both are descriptive methodologies that seek to replicate and describe (but not necessarily explain) the complex networks of relationship that exist within a defined system or place context. Explanations come through theories and interpretations that the researcher adopts and applies to the described system after it has been modeled. (Despite the name, there is no 'theory' in actor-network theory.)

Both approaches allow for a range of human and non-human influences in those connections and relationships that are modeled. ANT tends to treat all 'actors' as equal in their potential influence, whereas systems modeling is more likely to quantify those relationships. ANT is a poststructuralist methodology and allows for a broader definition of 'actors' (those that participate in and act upon the system) than most systems modeling, including people, ideas/philosophies, environments, artificial and natural objects, and more. ANT-related interpretations also tend to be based in critical social theory (Bosman & Dredge, 2011; Martin, 2003; Peirce et al., 2011).

Systems modeling has been applied more to natural ecosystems and larger regional and global environmental systems, while ANT has been applied more to specific sociocultural contexts. Both have been used to understand and manage business decision and production processes. Both tend to assume that the system under study is closed with no external influences, at least for modeling purposes. ANT also views networks as being embedded within larger systems, and that all network relationships have both an observable physical manifestation and a semiotic meaning.

The advantage of either a systems modeling or an ANT modeling methodology is



The fish market in Shimonseki, Japan, is a popular bottom-up place-making destination for locals and tourists on weekends who come here for fresh sushi.

the potential to capture the breadth of elements and their relationships to one another that contribute to the place making process. This is no easy task and requires considerable reflexivity by the researcher to properly define and contextualize the 'place' and the selection of variables for analysis. The potential outcome, however, can be a rich understanding and un-layering of the personality of place.

HOW TO DO PLACEMAKING

Place making is action that creates places. At one level, all actions taken (and states of just being) by the full range of actors and elements in a place contributes to its sense of place. As noted above, bottom-up place-making is mostly unintentional and unplanned, whereas top-down placemaking has become a significant tool for community development objectives by local government and non-governmental (non-profit) organizations (PPS, 2013). Government placemaking in this context usually has a very specific objective, which then inherently defines the place boundaries and context. The major goals of placemaking for community development include:

1. Economic development (attract investments; increase employment)
2. Transportation system improvements (vehicle, bicycle, and pedestrian)
3. Architectural and landscape improvements

4. Built heritage and architecture design and conservation
5. Beautification and open space
6. Intangible heritage conservation
7. Natural environment conservation
8. Community recreation, health, and wellbeing
9. Supporting local arts and artists
10. Supporting innovation and the 'creative class' (Florida, 2002)
11. Enhance social capital
12. Crime reduction and control
13. Tourism development
14. Youth development
15. Community inclusion

The traditional rational planning process for community development roughly follows these steps (Lew, 2007):

1. Identify a problem and a goal (to ameliorate the problem)
2. Collect and analyze data for a deeper understanding of the problem
3. Develop alternative solutions to address the problem
4. Select a preferred solution from the alternatives (this is usually a political decision)
5. Implement the preferred solution and monitor its progress
6. Periodically revisit the original problem and goals and start over as needed

PROBABLY THE SINGLE MOST important task in doing placemaking as a community development and planning process is identifying what is most important to community residents. This requires a comprehensive and inclusive community participation process.

In this process, the possible planning objectives are identified because someone reported a problem or opportunity within a place. This can be synonymous with stating a goal: to address the problem. Governmental and non-governmental organizations (including grassroots initiatives) then begin the planning process. Placemaking is not always a clearly defined part of these steps, even though almost all actions taken toward addressing a community issue of any kind has a placemaking impact. Placemaking advocates suggest that what is most important is to include placemaking as an intentional objective from the start. By doing so, the narrower objective (e.g., to solve a specific problem) is broadened to have greater significance for a broader community, both spatially and over time.

Probably the single most important task in doing placemaking as a community development and planning process is identifying what is most important to community

residents. This requires a comprehensive and inclusive community participation process, which should be part of any community planning process anyway. Something new that would be brought in, however, are design visualizations, both created by residents themselves and by professional designers, to enhance and expand creative visions of the community's future.

In the end, however, a sense of local place authenticity requires an element of bottom-up place-making that is beyond the reach of planners. As Lew (2017, p. 459) says:

> *For planned placemaking to foster a true and satisfying sense of place requires allowing space for the natural evolution of organic place-making to add to and influence master planned environments with vernacular and homegrown overtones. From this perspective, planned placemaking becomes a stage or action that is part of the larger meta context of place making and community development, and which also includes organic place-making.*

CRITIQUES OF PLACEMAKING

As much as public planning professionals espouse the goal of building placemaking initiatives through an inclusive community participation process, this is not always the outcome. Three major criticisms of place making in general, and top-down placemaking in particular, are: (1) it is a political tool used by elite groups to dominate others; (2) it furthers a neoliberal economic agenda; and (3) it often results in gentrification and the displacement of lower income populations.

Both bottom-up place-making and top-down placemaking are political processes (Buser et al., 2013; Hultman & Hall, 2012; Peirce et al., 2011) based on the tendency of individuals, and groups of individuals, to hold distinct worldviews reflecting their interpretations of "nationalism, (post)colonialism, identity politics, and the spatialization of collective memory" (Rose-Redwood & Alderman, 2011, p. 2). This raises the fundamental question of whose place is this place? Related to this, different governmental authorities may use placemaking to exert and secure power over what they perceive as their territory (Dredge & Jenkins, 2003).

Tourism is a neoliberal economic process, promoting globalization, commodification, exploitation, and homogenization of peoples and places (Insch, 2011; Kolås, 2004; McKercher et al., 2015; Morgan, 2014; Winter, 2014). Placemaking, as something that tourism development does that reflects this neoliberal global agenda, results in placeless landscapes (Friedman, 2010; Relph, 1976), Disneyfication (predictability with a lack of surprise), and McDonaldization (efficiency and the lack of risk) (Ritzer & Liska, 1997).

Placemaking as a way of upgrading the built infrastructure often contributes to gentrification (Frank, 2012; Lou, 2010; Richards, 2014), in which the original lower-income residents of an area are displaced by wealthier elites. Buser et al. (2013) and

Richards (2014) also point to a contradiction in which arts-oriented 'creative placemaking', which often reflects political resistance to conservative social institutions, is co-opted by the neoliberal gentrification process through placemaking.

CONCLUSIONS

At a fundamental level, all tourism development is a version of top-down placemaking because it is a planned and intentional effort to commodify place attributes for the goal of economic development. The degree of top-down tourism placemaking varies based on the context and goals of those involved, and some versions include a significant degree of bottom-up place-making. Unfortunately, very few tourism destination marketing organizations (DMO) are aware of the role of placemaking in tourism, even though they intentionally incorporate placemaking approaches into their tourism development and promotion activities. Thus, most DMOs are only peripherally aware of the placemaking they are doing, even though they are doing it all the time. Awareness of placemaking could make DMOs more effective.

PLACEMAKING CAN HELP island destinations to both understand their existing identity and sense of place, and how those came to be, and to reshape that identity to create new opportunities through tourism and other shared endeavours.

A comprehensive and intentional approach to placemaking would include awareness of, and encouragement of, community-wide discussions of the preferred forms of three key aspects about a destination: (1) its natural environment and built landscape; (2) the living culture in that landscape (its peoplescape); and (3) the mental image and beliefs that people hold of the destination (its mindscape). By creating consensus in these areas, an authentic sense of place can emerge that is deeply appreciated by both residents and visitors alike.

Island tourism destinations have advantages in these three areas because they are often more easily conceptualized as distinct places due to their bounded geography, more focused set of resources, and shared social sense of oneness with other islanders. However, this also means that their identity may be more difficult to change, if such a change is determined to be a goal.

Placemaking can help island destinations to both understand their existing identity and sense of place, and how those came to be, and to reshape that identity to create new opportunities through tourism and other shared endeavours. Everyone does place making every day through the decisions they make and the actions they take. Knowing this, and facilitating placemaking through a community-wide dialogue, is what is needed to make the best tourism places.

REFERENCES

Bosman. C., & Dredge, D. (2011). *Histories of placemaking in the Gold Coast City: The neoliberal norm, the State story and the community narrative*. Urban Research Program, Research Paper 33 (April). Brisbane: Griffith University.

Buser, M., Bonura, C., Fannin, M., & Boyer, K. (2013). Cultural activism and the politics of place-making. *City: Analysis of Urban Trends, Culture, Theory, Policy, Action*, *17*(5), 606-627. DOI:10.1080/13604813.2013.827840

Chen, J., & Chen, N. (2017). Beyond the everyday? Rethinking place meanings in tourism. *Tourism Geographies, 19*(1), 9-26. DOI:10.1080/14616688.2016.1208677

Cilliers, E.J., & Timmermans, W. (2014). The importance of creative participatory planning in the public place-making process. *Environment and Planning B: Planning and Design, 41,* 413-429.

Dredge, D., & Jenkins, J. (2003). Destination place identity and regional tourism policy. *Tourism Geographies, 5*(4), 383-407.

Dyck, I. (2005). Feminist geography, the 'everyday', and local-global relations: Hidden spaces of place-making. *The Canadian Geographer / Le Géographe canadien, 49*(3), 233-243.

Florida, R. (2002). *The rise of the creative class, and how it's transforming work, leisure, community and everyday life*. New York: Basic Books.

Frank, T. (2012). Dead end on Shakin' Street. *The Baffler*. Retrieved from http://thebaffler.com/articles/dead-end-on-shakin-street

Friedman, J. (2010). Place and place-making in cities: A global perspective. *Planning Theory & Practice 11*(2), 149-165. DOI:10.1080/14649351003759573

Gottdiener, M. (2001). *The theming of America: American dreams, media fantasies, and themed environments* (2nd Ed). Boulder: Westview Press.

Hall, C.M., & Lew, A.A. (2009). *Understanding and managing tourism impacts: An integrated approach.* Oxford: Routledge.

Hollinshead, K., Ateljevic, I., & Ali, N. (2009). Worldmaking agency—Worldmaking authority: The sovereign constitutive role of tourism. *Tourism Geographies, 11*(4), 427-443. DOI:10.1080/14616680903262562

Hultman, J., & Hall, C.M. (2012). Tourism place-making: Governance of locality in Sweden. *Annals of Tourism Research, 39*(2), 547-570.

Insch, A. (2011). Ethics of place making. *Place Branding and Public Diplomacy, 7,* 151-154. DOI:10.1057/pb.2011.23

Kolås, Å. (2004). Tourism and the making of place in Shangri-La. *Tourism Geographies, 6*(3), 262-278.

Lems, A. (2016). Placing displacement: Place-making in a world of movement. *Ethnos, 81*(2), 315-337.

Lew, A.A. (2017). Tourism planning and place making: Place-making or placemaking? *Tourism Geographies, 19*(3), 448-466.

Lew, A.A. (2011, April 19). The best tourism places. *Tourism Place Blog.* Retrieved from http://tourismplace.blogspot.com/2011/04/best-tourism-places-pecha-kucha.html

Lew, A.A. (2007). Invited commentary: Tourism planning and traditional urban planning theory: Planners as agents of social change. *Leisure/Loisir: Journal of the Canadian Association of Leisure Studies, 31*(2), 383-392.

Lou, J.J. (2010). Chinatown transformed: Ideology, power, and resources in narrative place-making. *Discourse Studies, 12*(5), 625-647.

Markusen, A., & Gadwa, A. (2010). *Creative placemaking* (White paper for The Mayor's Institute on City Design). Washington, DC: National Endowment for the Arts. Retrieved from http://arts.gov/pub/pubDesign.php

Martin, D.G. (2003). ''Place-framing'' as place-making: Constituting a neighborhood for organizing and activism. *Annals of the Association of American Geographers, 93*(3), 730–750.

Massey, D. (2005). *For space.* London, UK: Sage.

McKercher, B., Wang, D., & Park, E. (2015). Social impacts as a function of place change. *Annals of Tourism Research, 50,* 52-66.

Morgan, N. (2014). Problematizing place promotion and commodification. In A.A. Lew, C.M. Hall, & A.M. Williams (Eds.). *The Wiley-Blackwell companion to tourism* (pp. 210-219). Oxford: Blackwell.

Peirce, J., Martin, D.G., & Murphy, J.T. (2011). Relational place-making: The networked politics of place. *Transactions of the Institute of British Geographers, 36,* 54–70.

Project for Public Spaces (PPS). (2015, June 19). *Equitable placemaking: Not the end, but the means*. Project for Public Spaces. Retrieved from http://www.pps.org/reference/equity-placemaking-gentrification

Project for Public Spaces (PPS). (2013, March 17). *Stronger citizens, stronger cities: Changing governance through a focus on place.* Project for Public Spaces. Retrieved from http://www.pps.org/blog/stronger-citizens-stronger-cities-changing-governance-through-a-focus-on-place

Relph, E. (1976). *Place and placelessness.* London, UK: Pion Limited.

Richards, G. (2014). Creativity and tourism in the city. *Current Issues in Tourism, 17*(2), 119-144. DOI: 10.1080/13683500.2013.783794

Ritzer, G., & Liska, A. (1997). 'McDisneyization' and 'post-tourism'. In C. Rojek & J. Urry (Eds.). *Touring cultures: Transformations of travel and theory* (pp. 96-109). London, UK: Routledge.

Rose-Redwood, R., & Alderman, D. (2011) Critical interventions in political toponymy. *ACME: An International E-Journal for Critical Geographies, 10*(1), 1-6.

Shaw, K., & Montana, G. (2016). Place-making in megaprojects in Melbourne. *Urban Policy and Research, 34*(2), 166-189.

Singapore Tourism Board (STB). (2016). *What we do: Placemaking*. Singapore Tourism Board. Retrieved from https://www.stb.gov.sg/about-stb/what-we-do/Pages/Placemaking.aspx

Tuan, Y.F. (1979). Space and place. In S. Gale & G. Olsson (Eds.). *Philosophy in geography* (pp. 387-428). Dordrecht: Reidel.

Tuan, Y.F. (1977). *Space and place: The perspective of experience*. Minneapolis: University of Minnesota Press.

Winter, T. (2014). Material culture and contested heritage in tourism. In A.A. Lew, C.M. Hall, & A.M. Williams (Eds.). *The Wiley-Blackwell companion to tourism* (pp. 368-377). Oxford: Blackwell.

Wyckoff, M.A., Neumann, B., Pape, G., & Schindler, K. (2015). *Placemaking as an economic development tool: A placemaking guide*. East Lansing, MI: Land Policy Institute, Michigan State University.

Beautiful beaches like this one on Bali will not remain the epitome of ecological perfection with detritus of every imaginable description washing up on their shores.

5

Tourism on small islands:

The urgency for sustainability indicators

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ABSTRACT

To consider small islands as places for sustainable tourism—or sustainable anything, for that matter—must surely be cause for critical deliberation. Small islands as sanctuaries, or rare citadels for ecological safekeeping and tight-knit communities, runs counter to islands as sites for extraction and development, yet increasingly the latter prevails. However, the former are the precise reasons that small islands are aligned with the global travel supply chain. Consuming small islands abides with the tropical idyll narrative and, within such invocations, the exposure of small islands to externalities renders its utility to purposes that run counter to benign and constructive outcomes. Herein is the dilemma for small islands and their entanglements with tourism expansion.

The principal question posed asks: is the proliferation of tourism on small islands enhancing the development of social-ecological resilience, or accelerating the onset of system failure? If so, how can unfolding trajectories be monitored and assessed? The UNWTO's Mandatory Issue Areas for the observation of sustainable tourism are applied as guiding indicators. The urgency to articulate indicators of sustainable tourism development is palpable because the conceptualization of small islands as ideal tourist escapes will likely intensify. Small islands cannot afford to experience monumental blunders given their scale, adaptive capacity limitations, and relative fragility.

BACKGROUND

The concept of the island has long been prominent in literature and useful in science: biologists and geographers, national park managers and archaeologists, linguists, geneticists, and evolutionary theorists have all turned at times to the model of the island. Yet it might no longer be a great model for the new needs and concerns of our rapidly globalizing century (Robin, 2014, n.p.).

Robin's (2014) sentiments are a reminder of the way islands, as the received wisdom would have us believe, were sanctuaries from the madding world, where all that was unblemished could be found, and where nature thrived over and above the onerous influence of humans (Chandler & Pugh, 2018; Hauʻofa, 1994; Kothari & Arnall, 2017). The current epoch punctuated by global warming and rising sea levels and the spectre of human-derived garbage, seen in the Pacific Garbage Patch and on the remotest of islands in the Pacific, calls for urgent reassessment of the place of islands in contemporary imagination (Baldacchino, 2007; Pyrek, 2016). A call to arms, no less, arguing that the well-being of island communities is now more than ever outside of their control, buffeted by fickle winds originating far beyond, and diminishing their ability to deal with increasing frequency of climatic and economic shocks (Cheer & Lew, 2017; Connell, 2018; Grydehøj & Kelman, 2017; Lew & Cheer, 2017).

The sanctuary that islands once were has expired, and the imposts borne of peripherality and remoteness that once provided the steeliness islanders were famed for has slowly disintegrated (Kelman, 2018; Moore, 2010). Robin's (2014) doubts as to whether islands remain models of ecological perfection are epitomized on the beaches of Bali, where detritus of every imaginable description can be found. Islands as dumping grounds for the excesses of contemporary life are not new (Verlis & Wilson, 2020) as typified by the aptly named Iron Bottom Sound in the Solomon Islands, a burial ground for the assemblages of the Second World War in the Pacific.

That islands were considered robust, adaptable, and with the innate ability to bounce back from whatever was meted out was probably appropriate when things were more predictable and where the pressure on islands was less intense (Hauʻofa, 1994). Islands and their surrounding waterways—'aquapelagos', to use Hayward's (2012)

phrasing—are inseparable in that where one is compromised, the other suffers. Presently, small islands are increasingly under assault from the sea that surrounds them, not because of the ocean itself, but because of the human signatures that are writ large across the globe (Hernández-Delgado, 2015). The end result manifest is evidenced by the hopelessness of i-Kiribati to negotiate and overcome the effects of rising sea levels, hastened by global warming (Allgood & McNamara, 2017). Meanwhile, a world away in Washington, Canberra, and Beijing, the plight of small islands is an inconvenience to the pursuit of economic growth. Consequently, protest against the extraction and consumption of fossil fuels is consistently resisted in the interests of maintaining growth trajectories.

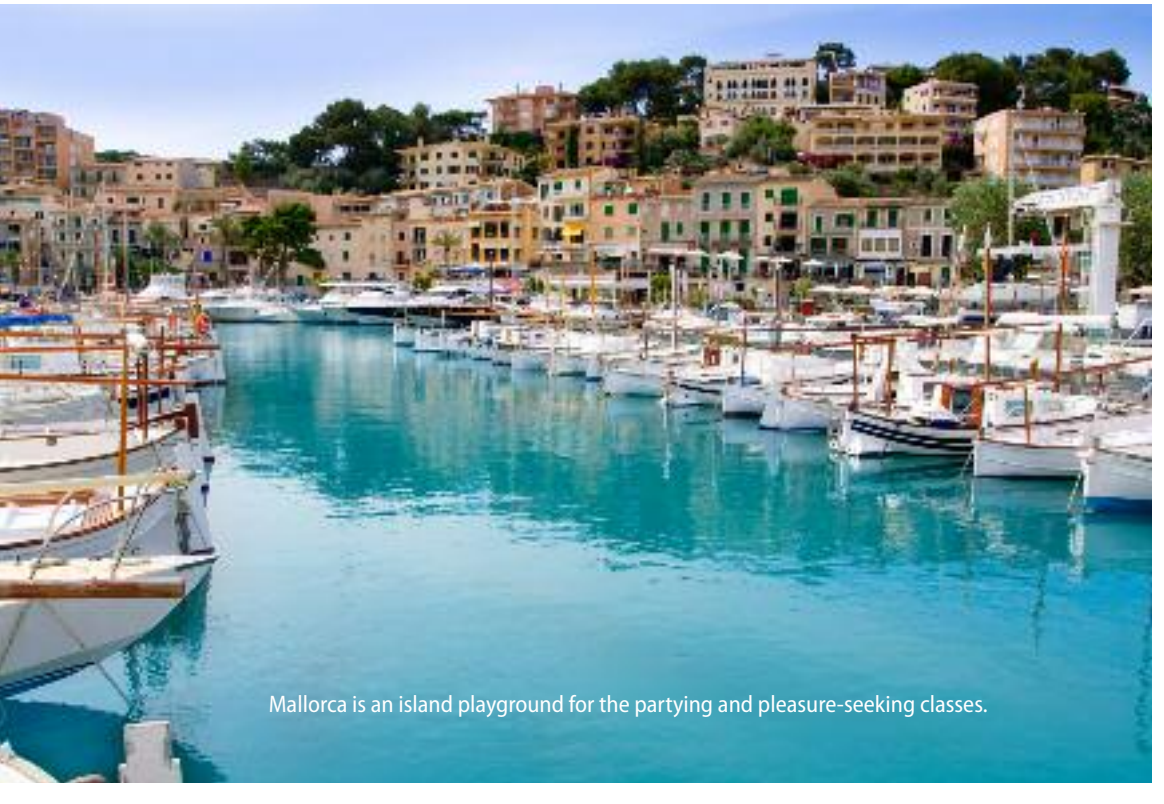
Might islands be given the rights accorded to other sentient beings as seen in assessments that rivers should be given the same rights as humans (O'Donnell & Talbot-Jones, 2018)? Islands, like rivers and tributaries, are life-support mechanisms for widespread and diverse ecosystems. That the Whanganui in New Zealand and the Ganges and Yamuna in India, non-human entities all, have been accorded the same rights as humans should jettison notions of islands as disposable landscapes (Farbotko, 2010). This is pertinent, for the expansion of tourism on small islands is often interposed with reef dredging, mangrove clearance, land reclamation, and deforestation, as well as heightened demands on what are usually scarce resources, particularly ground water (Zuidema, Plate, & Dikou, 2011). Moreover, the byproducts of tourism on small islands in the form of hard waste or wastewater are usually secreted in deep pits or tanks, or flushed into an ocean where it was thought that the capacity to absorb whatever was dumped into it was boundless (Mohee et al., 2015).

Most telling are the ways by which islands are considered ideal locations for the cast-offs from the mainland or metropolitan centres, as seen in fast deteriorating facilities in the Marshall Islands and Tahiti where the remnants of the military industrial complex lie precariously, outliving the confines that were to have protected humans from harm (Danielson, 1990; Gerrard, 2015; Johnson & Takala, 2018; Keown, 2018). Not forgetting the way islands were used to house the rejects of human society in the way of convicts, castaways and lepers, and today asylum seekers, as seen in the Pacific (Manus, Nauru, Christmas Island) and Greece (Lesvos, Chios, Samos, Kos, and Leros). Concurrently, these places retain their paradisiac and otherworldly allure for tourists, far enough to escape to and close enough to retreat from.

Tourists enjoying a beach on Kos, Greece, in 2015 as desperate migrants arrive in a dinghy.

Consequently, to consider small islands as places for sustainable tourism—or sustainable anything, for that matter—must surely be cause for critical deliberation (Cheer & Peel, 2011; Cole & Brown, 2015; Kerr, 2005; Scheyvens & Momsen, 2008). Small islands as sanctuaries, or rare citadels for ecological safekeeping and tightknit communities, runs counter to islands as sites for extraction and development, yet increasingly the latter prevails. However, the former are the precise reasons that small islands are aligned with the global travel supply chain (Prince, 2017; Scheyvens, 2006; Twining-Ward & Butler, 2002). Consuming small islands abides with the tropical idyll narrative and, within such invocations, the exposure of small islands to externalities renders its utility to purposes that run counter to benign and constructive outcomes. Indeed, islands as playgrounds where hedonism and profligacy rule is more likely, as evidenced by the partying and pleasure-seeking classes in Mallorca, Ibiza, Bali, and Phuket (Shakeela & Weaver, 2018). The demand for islands as sites of relaxation and indulgence knows no bounds, and, for whatever effluent is produced, 'out-of-mind and out-of-sight' resonates (Schwartz, 1999). This harkens back to Schalansky's (2014, p. 19) cynicism: "Paradise may be an island. But it is hell too," where she refers to the contradictions of small islands as sites of pleasure for some and places of hardship and desperation for others, as so often manifest in host-guest encounters (Sheller, 2004).

Herein is the dilemma for small islands and their entanglements with tourism



Mallorca is an island playground for the partying and pleasure-seeking classes.

expansion. Islanders usually bear the costs of growth, particularly when the beneficiaries of expansion give short shrift to the marginalizations that emerge (Cheer, 2018; Ridderstaat, Croes, & Nijkamp, 2016; Wilkinson, 1987), with the consequences falling on the shoulders of islanders and in situ ecosystems (Kurniawan et al., 2016; Ridderstaat, Croes, & Nijkamp, 2016). That small islands have seen fit to close themselves off from tourism, as in the case of Maya Bay, Borocay, and Komodo, is a high-stakes gamble, but necessitated by the surpassing of critical tipping points (Koh & Fakfare, 2019). This begs the question: what is the point of development of any kind on a small island if the very essence of the people and place is undermined? And what indicators are needed to signal that uppermost thresholds are reached?

ORIENTATION AND AIMS

This chapter is concerned with tourism on small islands and the overarching themes that allude to how sustainable tourism might be signposted via indicators. Tourism is emblematic of the challenge for small islands: how to maintain and keep pace with the rest of the world while not getting caught in the backwash that accompanies the waves of change. For many small islands, and Small Island Developing States (SIDS), tourism presents unparalleled opportunities for economic development, and diversification

The small island of Borocay in the Philippines has closed itself off from tourism.

from declining stock-in-trade endeavours such as fishing, subsistence agriculture, and cash cropping (Pratt, 2015; Scheyvens & Momsen, 2008). The gradual decline of fisheries brought about by the intensification of industrialized fishing and the falling-off of agrarian pursuits (for example, sugar and copra production) and their waning value have catapulted tourism into becoming a priority for small islands (Cheer, 2013; Cheer, Reeves, & Laing, 2013).

The principal question posed asks: is the proliferation of tourism on small islands enhancing the development of social-ecological resilience, or accelerating the onset of system failure on small islands? If so, how can unfolding trajectories be monitored and assessed? Perhaps the twin and opposing forces of resilience building and decline are in constant motion in the pursuit of sustainable tourism predicated on building more resilient communities, and also undermining the social and ecological inheritances of islanders, leaving a net deficit (Cheer & Lew, 2017; Hall, Prayag, & Amore, 2017; Lew & Cheer, 2017; Saarinen & Gill, 2018). Apropos to the overarching question is an extension to the line of enquiry: what are indicators that might determine whether, in the presence of tourism development, small island communities can build resilience?

The conceptual framing that follows applies a praxis-based approach to outlining the dynamics between tourism development and small islands. The focus on practice does not mitigate the need for theoretical development, but instead is focused on

People praying in temple Pura Luhur Uluwatu in Bali.
Pura LuhurUluwatu is a god dedicated to the spirits of the sea.

employing a device to consider how small islands might deal with and better understand the pressures of tourism growth. Although the development of theory regarding resilience and adaptation on small islands has a place in policymaking and planning, a deliberate focus in this chapter is to develop practice-based thinking.

CONCEPTUAL FRAMING

In response to the overarching line of questioning, a conceptual framework is put forward to shape the development of sustainable tourism indicators in small islands. The UNWTO's Mandatory Issue Areas for the observation of sustainable tourism are applied as guiding indicators (UNWTO, 2016). Consisting of a set of nine pointers, the application of this framework to small islands can make way for more pragmatic assessments of sustainability progress or decline. These industry-led indicators pinpoint most of the underlying variables that should ordinarily frame assessment of sustainability of tourism on small islands. While striving to be all-encompassing, they provide umbrella coverage for the spectrum of tourism impacts, with the relevance of indicators remaining subject to particular island contexts.

THE TERM 'ISLANDSCAPES' is apt as it suggests that small islands must be distinguished from non-island contexts, given their largely unique conditions.

> *The UNWTO International Network of Sustainable Tourism Observatories (INSTO) was created in 2004 with the objective to support the continuous improvement of sustainability and resilience in the tourism sector through systematic, timely and regular monitoring of tourism performance and impact in order to better understand destination-wide resource use and foster the responsible management of tourism.* (UNWTO, n.d., n.p.)

The UNWTO's Mandatory Issue Areas signpost critical success factors that are particularly pertinent for small-island contexts where tourism is firmly entrenched, and where rethinking the place of tourism is pressing. The term 'islandscapes' is apt as it suggests that small islands must be distinguished from non-island contexts, given their largely unique conditions. Very often this includes the burdens of peripherality, narrow economic bases, proportionately small resident populations, limited range of services, dependence on modest transport networks, and resource scarcity, among others. "Islandscapes encompass both the landscape (physical and cultural landscapes) and seascape (coastline and other bodies of water that encompass islands) and this intersection makes up the essential character of islands" (Cheer et al., 2017, p. 41).

The relevance of islandscapes as a concept in understanding and taking into account the departure points from the mainland or larger adjacent islands is vital. Small islands "in and of themselves, and beyond this fascination with them as nodes within

the tourist bubble, are also sites of socio-economic and environmental tension, underlined by the practicality of distance from metropolitan centres, and mostly laden down by terms of trade that are very often onerous and difficult to overcome" (Cheer et al., 2017, p. 42). Apropos, rather than simply problematizing tourism, this conceptual framing seeks to accentuate the critical success factors that can help inform policy and planning.

UNWTO ISSUE AREAS FOR SUSTAINABLE TOURISM

> *As evidence-based decision making is of utmost importance for sustainable tourism development, the visions behind the INSTO initiative highlights the key role that observatories play as an essential instrument to continuously enhance the sustainability of the tourism sector.* (UNWTO, 2016, p. 1)

The desire to develop measures for sustainable tourism acknowledges that without systematic collection and analysis of empirical data, tracking and assessing the sustainability of tourism will remain elusive. Consequently, sustainable tourism indicator regimes have emerged as one way that destinations can come to terms with the sustainability of tourism expansion. The UNWTO INSTO framework is one of the more prominent modes of indicator-driven knowledge and is increasingly seen as an essential tool for strategic destination management.

The Cathedral of la Seu Majorca in Palma de Mallorca.

Other regimes include the Global Sustainable Tourism Council's (GSTC) Criteria for Destinations (GSTC, 2013) and the European Tourism Indicators System (ETIS) for sustainable destination management (European Commission, 2016). The GSTC criteria are used for education and awareness-raising, policymaking for businesses and government, measurement and evaluation decision-making, and as a basis for certification. Underpinning the GSTC approach are minimum criteria to help reach quadruple bottom-line impacts encompassing social, environmental, cultural, and economic sustainability. While the adoption of such criteria is voluntary for destination managers, increasingly GSTC certification is acknowledged for the marketing and public relations utility. This leaves it potentially open to criticisms of greenwashing if destinations attain certification based on minimum standards, then fail to maintain or strengthen their sustainability credentials.

Conversely, the European Tourism Indicator System (ETIS) provides destination managers with tools that enable more consistent management, measurement, and knowledge development regarding sustainable operations. The intention is to enable wider tourism stakeholder groups to understand the overarching impacts of tourism on destinations and host communities. Unlike the GSTC scheme, the ETIS does not associate with certification processes and instead assumes a voluntary code of conduct. However, both the GSTC and ETIS, as well as UNWTO INSTO, have the common aim of tracking and ascertaining the sustainability of tourism. In converging all three approaches, irrespective of which criteria is used to establish the sustainability credentials of destinations, there tends to be a paucity of empirical data, thus highlighting the opportunity to apply indicator regimes, either as non-mandatory measures or in relation to earned certification.

IN THE SMALL PACIFIC ISLAND nation of Vanuatu, the term *turism blong yumi blong evriwan* in the country's lingua franca ('tourism belongs to everyone') resounds and is used as a catchcry by government to promote the merits of tourism development.

In adopting the UNWTO INSTO approach as the backdrop for this analysis, overarching considerations are given to how each of the nine criteria plays out and the methodological issues that underpin each one.

Local satisfaction

In the small Pacific Island nation of Vanuatu, the term *turism blong yumi blong evriwan* in the country's lingua franca ('tourism belongs to everyone') resounds and is used as a catchcry by government to promote the merits of tourism development. That host community satisfaction and buy-in for tourism is essential is a truism, and, evidently, when this fails the sector becomes precariously poised and risks compromising tourist satisfaction as well (Cheer et al., 2018). The tendency to prioritize tourist satisfaction

above that of the resident population is commonplace where tourism growth is pursued despite local misgivings and marginalizing propensities.

In 1980, Rajotte and Crocombe (Figure 5.1) made what was an unprecedented attempt to understand how islanders in the Pacific saw tourism and how their lives had changed. Overall, the sense of foreboding that tourism had promised so much yet delivered so little was clear. What's more, islanders articulated that in exchange for their culture and islandscapes, what they got back amounted to little more than crumbs from the tourists' table. Three decades later, Pratt and Harrison (2015) found that the challenge to enable tourism to exercise its fullest capacity for development in the region remained challenging.

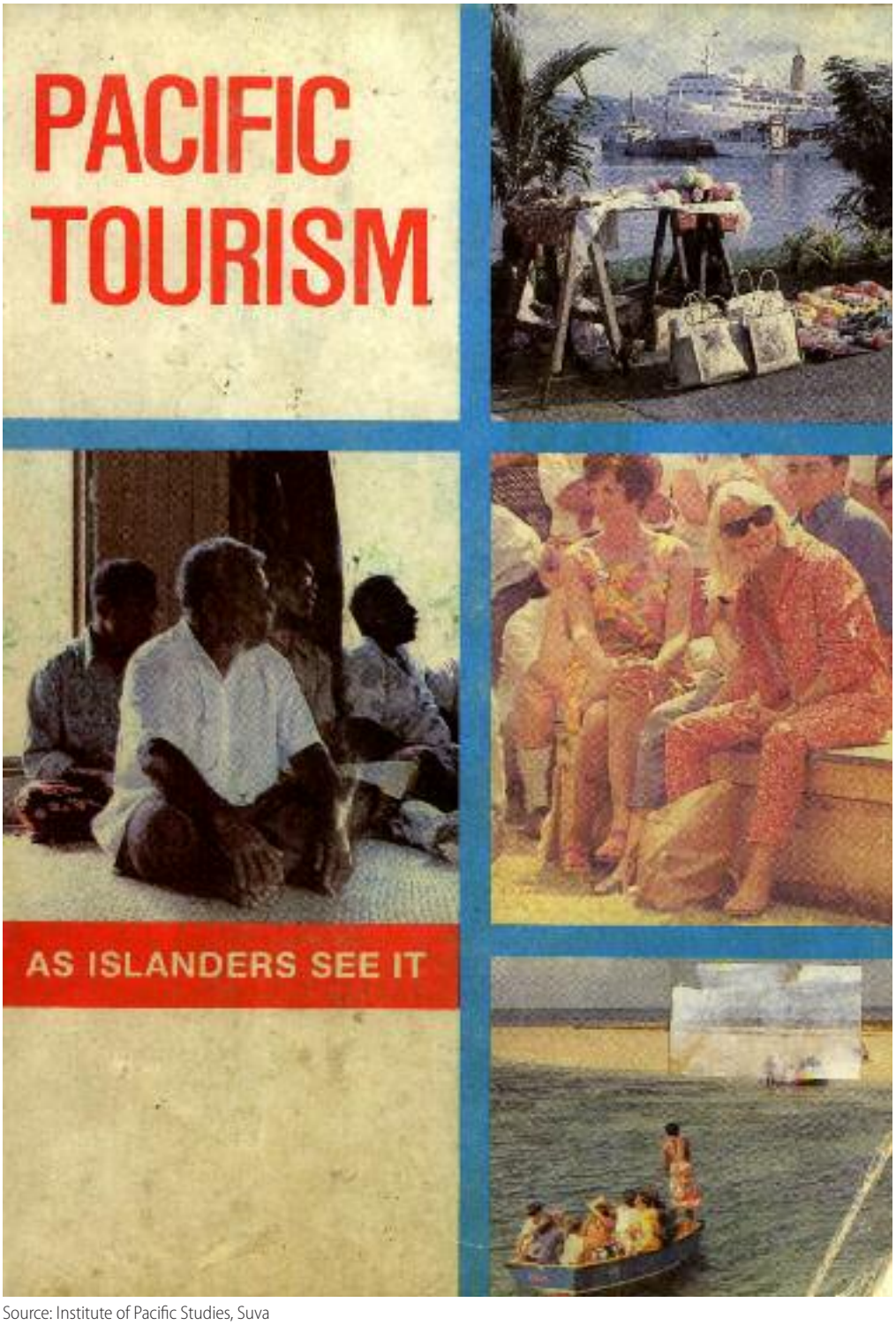
The present-day phenomenon of overtourism is largely predicated on the notion that it arises when local communities feel disgruntled with tourism growth that leaves them worse off (Cheer, Milano, & Novelli, 2019). As distinct from overcrowding, overtourism is "the excessive growth of visitors leading to overcrowding in areas where residents suffer the consequences of temporary and seasonal tourism peaks, which have enforced permanent changes to their lifestyles, access to amenities and general well-being" (Milano, Cheer, & Novelli, 2019, p. 1). The key is the enforcement of permanent changes that lead to compromised ability to adapt and become resilient to externalities (Cheer et al., 2019). Where this has been evident in small islands such as Borocay, Komodo, and Phi Phi Lei (site of Maya Beach), social and ecological tipping points had been breached, necessitating last-gasp measures or risk permanent impairment.

Insofar as questions that underline the development of indicators aligning with the UNWTO INSTO approach, these can include:

1. What are the optimal ratios of hosts to tourists?
2. What characterizes the spatial dispersal of tourists on the island?
3. Is there a longitudinal regime of monitoring and evaluating islander community attitudes toward tourism?
4. What are alternative indicators of wellbeing? This relates to non-economic variables such as security, belonging, sense of place, community cohesion, and crime, among others (VNSO, 2012).

Tourism seasonality

Seasonal variations in small islands depend on two key factors: whether they are in cold-water or warm-water contexts. In both, seasonal peaks are likely in warmer months when access to small islands is less constrained on account of climatic and environmental factors, as well as in regards to provision of transport services (Andriotis, 2005; Cuccia & Rizzo, 2011). In warm-water tropical destinations, visitation is shaped by seasonal weather factors peaking outside the hurricane or cyclone season.



Source: Institute of Pacific Studies, Suva

FIGURE 5.1: **Pacific tourism: As islanders see it**

Insofar as seasonality concerns visitation, capacity constraints on small islands often limit expansion in peak periods, underlining overcrowding and carrying-capacity anxieties (Santana-Jiménez & Hernández, 2011). Where these effects are seasonal, the capacity for recovery and regeneration in between peak, shoulder, and off-peak seasons gives communities some respite. However, where seasonality factors are less influential and where visitation is at persistent peaks, such conditions raise red flags for sustainability concerns (Cheer et al., 2019).

In employing the UNWTO INSTO approach, tourism stakeholders on small islands are encouraged to assess seasonal patterns of visitation, and align these with sustainability markers. The ability to moderate and keep visitation on an even keel, rather than experience uneven spikes with massive differences between low and high seasons, is vital. Some key questions relevant to assessing seasonality effects include:

THE ABILITY TO MODERATE and keep visitation on an even keel, rather than experience uneven spikes with massive differences between low and high seasons, is vital.

1. Are overcrowding symptoms obvious, and to what extent do these lead to temporary or permanent changes to the sense of place?
2. Are there strategies to smooth visitation to ensure absence of wild swings between high and low season?
3. Are services and utilities able to cope with visitation peaks?
4. Are businesses able to maintain viability in between low and high peak seasons?
5. Do employees enjoy security of employment throughout the various seasons?
6. Is a period of closure required to encourage ample time for recovery and regeneration following peak periods?

Destination economic benefits

When tourism is invoked, it is very often on the basis that it can serve as a key pillar of a small island's economy (Pratt, 2015). What's more, it is motivated by a desire to diversify away from typical island livelihoods including fisheries, niche agricultural commodities (e.g., copra), and remittances from links to the metropolitan centre and, in SIDS contexts, from abroad (Lasso & Dahles, 2018). In the case of SIDS where the traditional non-cash economy still predominates, the chance to parlay this into transactions in exchange for cash income is another key driver. Additionally, where inimitable cultural heritage is present, the presentation of this for tourism can garner further cash income opportunities (Cheer, Reeves, & Laing, 2013).

However, very often, the extent to which small island communities can extract

optimal returns from tourism brings into question the real economic impacts from tourism (Bojanic & Lo, 2016). The reference is to ascertaining the extent to which trickle-down and multiplier effects are garnered in favour of local communities, often subject to the degree to which external parties are engaged in the expansion of tourism as seen in the often disproportionate reliance on external capital, expertise, and linkages to the tourism supply chain (Garrigós-Simón, Galdón-Salvador, & Gil-Pechuán, 2015).

Accordingly, some of the key questions that help paint a clearer picture of the micro- and macro-level economic impacts could include:

1. What do macroeconomic indicators suggest in relation to the economic impact on island life? This might focus on island-wide issues related to housing affordability, inflation, and GDP.
2. How can data related to formal and informal income be accessed and aggregated to give a more direct and complete picture of the overall resources available to island residents?
3. Is there an established longitudinal regime of economic data collection that is supported by the island's residents and business community? Moreover, who is charged with the responsibility for collecting data and, where financing is required, who bears the cost?
4. To what extent are data on visitor expenditures collated?

Trekker on Komodo island, Indonesia.

Employment

Heavily linked to the economic imperative is the development of employment opportunities for island residents. Formal tourism employment in small islands is usually constrained and subject to seasonal fluctuations. Consequently, employment is sporadic and unreliable, meaning that, for many, multiple livelihood activities are usually needed (Hughes & Scheyvens, 2018). In SIDS contexts, this may involve complementing traditional economic activities (subsistence agriculture or mix of subsistence and cash cropping), temporary employment off the island, or full-time employment overseas on cruise ships and other maritime-going vessels.

In small-island contexts, it is commonplace for islanders to partake in guest worker schemes like Australia's Seasonal Worker program that engages Pacific islanders as guest workers on Australian farms (Bedford, Bedford, Wall, & Young, 2017). This often means families are without key family members, intensifying pressure on remaining members to satisfy child and/or elderly parent care, home maintenance responsibilities, and civic volunteerism. However, the usual dearth of secure and continuous employment opportunities necessitates movement away from island homes.

Also, there is a tendency for the skills capacity of residents to be limited given the constraints of accessing tourism skills training opportunities and prior work experience. When it comes to applying the UNWTO INSTO guidelines, some of the key questions include:

1. What are the overall aptitudes and capacities of islanders to take on positions in tourism-related enterprises? This may include language and specific skills-based competencies such as in culinary and food-related roles and accommodation and tours management.
2. What strategies are required to bridge skills gaps?
3. What funding mechanisms are available to provide skills training and professional development?

Energy management

For many small-island tourism enterprises, energy costs are the largest operating cost given reliance on fossil fuels to power diesel generators and outboard motors (Michalena & Hills, 2018). However, in line with shifts towards renewable energies, the natural capacity for solar and/or wind is increasingly being seized upon. In Tuvalu, the small-island country is aiming for 100% renewable energy by 2020. Clearly whether an island is warm- or cold-water, or located in the global south or not, can determine realistic avenues for the shifts away from reliance on costly fossil fuel usage (World Bank, 2015). It may also be dependent on the type of tourism development employed, whether high-end resort-style inclusive of golf courses and the like, or small-scale, bungalow-type, which are less energy-intensive.

1. What is the current status quo regarding energy sources in use on the island?
2. What is the capacity to harness renewable energy either via wind or solar?
3. What are wider government initiatives related to renewable energy use?

Water management

The general absence of underground water sources and scarcity of groundwater catchment areas makes shortage of potable water on small islands a practical constraint for tourism (Belmar, McNamara, & Morrison, 2016). As Cole (2016) has emphasized, little thought is given to ensuring that tourism water usage does not compromise what limited water there is on small islands. Tourism tends to be water-intensive and, unless effective planning and policy regimes are in place, water will continue to be seen as in endless supply.

LITTLE THOUGHT IS GIVEN to ensuring that tourism water usage does not compromise what limited water there is on small islands. Tourism tends to be water-intensive and, unless effective planning and policy regimes are in place, water will continue to be seen as in endless supply.

Water consumption by tourists on small islands considerably outstrips that of local residents for whom the consequences of profligate use is felt most profoundly (Bird, 2019; Hof & Blázquez-Salom, 2015). As Cole (2016) has warned, while islanders tend not to be the main beneficiaries of tourism expansion, they often bear a disproportionate cost burden of water scarcity. Seasonality trends also influence water consumption while more volatile weather patterns underlined by lower-than-average rainfalls also tend to have an abiding impact on water management (Garcia & Servera, 2003; Martinez-Ibarra, 2015). Accordingly, when it comes to water management, some underlying questions include:

1. Is there a water management regime in situ and does it have an overarching role on the effective management of water resources on the island?
2. What is the status quo of water scarcity or abundance on the island?
3. What considerations are given to water emergency situations and how are competing priorities of local resident need and tourism-sector requirements reconciled?
4. What capacity is there for a water desalination facility as a backup in times of water scarcity?

Wastewater management

The options for the dispensation of wastewater on small islands is limited, with two key options tending to prevail: in-ground storage or disposal into surrounding waterways. Moreover, wastewater treatment facilities are sparse on small islands, meaning that greater intensity of wastewater production, coinciding with increased visitation, is highly problematic (Wells et al., 2016). Eutrophication effects are introduced where surrounding water bodies become excessively nutrient-laden, leading to damage to marine life and excessive algal blooms. More often, rudimentary septic-tank systems are the fullest extent of what is provided and, over a period of time, they run the risk of not being fit for purpose when island populations and tourist visitations spike.

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Small islands are particularly vulnerable to hyper-eutrophication, and the impacts can render permanent damage, especially to fragile reef ecosystems that locals rely on for subsistence fishing and tourism (O'-Driscoll, Bean, Mahoney, & Humphrey, 2019). Typically, the disposal of wastewater and management of effluents are considered benign, especially where tourist visitation is minimal and the pressure on wastewater production is non-threatening. The establishment of resorts on small islands, along with golf courses, lagoon swimming pools, and rainwater showerheads heap further pressure on water usage and its eventual disposal. Consequently, wastewater management has moved from being an innocuous by-product of local residents when small islands were moderately populated, to more onerous concern as tourism numbers swell and further infrastructure is established. Some underlining questions may include:

1. Are in situ wastewater management approaches and infrastructure fit for purpose now and in view of tourism growth projections?
2. Have analyses of current wastewater management regimes and their impacts on the island's marine environments been conducted, especially at outfall points?
3. What regulatory requirements and follow-up enforcement are in place to ensure tourism operator compliance with the current wastewater management regime?

Solid waste management

Much like wastewater management, the issue of solid waste management is usually intensified in tandem as tourist visitation increases (Estay-Ossandon & Mena-Nieto, 2018). Solid waste management is typically comprised of in-ground burial of organic and non-organic matter such as glass and aluminium cans, given the onerous expense of moving this off the island (Verlis & Wilson, 2020). Moreover, in SIDS contexts, avenues for recycling and reuse are very limited, resulting in off-island storage either on the 'mainland' or adjacent islands whose sole purpose is the deposit of solid waste.

A range of questions are prompted, but, most importantly, queries about how tourism production and consumption processes can change to make solid waste management less onerous are pressing. A growing focus aligning the tourism supply chain with inputs that are less demanding on waste-management processes in situ is essential. Issues including the sourcing or local input and food miles mitigation, packaging, and treatment of organic solid waste is also necessary, beyond the two most common means of dealing with solid waste: incineration or in-ground burial.

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In consideration of solid waste management, key questions include:

1. What scrutiny is placed on tourism supply chain inputs in small islands to ensure effective management of solid waste?
2. To what extent are local residents and tourism stakeholders consulted and involved in solid waste management discussions?
3. What level of resources is required to support the development and consolidation of solid waste management procedures?

Governance

It is without question that the imperative for effective governance is urgent as the demands on small islands as tourist destinations intensify. Apropos, the compelling need for good governance is magnified in small-island contexts where resilience and vulnerability are more pronounced, and where tourism developments at a wider scale can have far-reaching and even irreversible consequences (Figueroa & Rotarou, 2016). The lure of tourism lies in the inherent peripherality of small islands and the ways by which this tends to introduce aspiration for greater engagement with the metropolitan centre for economic and socio-psychological reasons.

In some cases, responsibility for governance of tourism on small islands rests elsewhere, including transnational resort and cruise ship corporations, and this creates grounds for discontent where decisions made offshore can have considerable implications onshore (González-Morales, Álvarez-González, Sanfiel-Fumero, & Armas-Cruz, 2016). This occurs where wider regional institutions conduct tourism destination management and promotion with little or no practical presence on the ground. Governance failures occur where the operation of tourism is not synchronized with stakeholder interests. Gaining wide stakeholder buy-in for tourism expansion on small islands is vital, for, in tight-knit and small communities, grounds for disharmony can have far-reaching ramifications. In tandem, securing greater corporate social responsibility from the tourism sector can aid policymaker attempts to guide development that is in synchrony with governance and policy regimes (Hughes & Scheyvens, 2016).

GOVERNANCE FAILURES OCCUR where the operation of tourism is not synchronized with stakeholder interests. Gaining wide stakeholder buy-in for tourism expansion on small islands is vital, for, in tight-knit and small communities, grounds for disharmony can have far-reaching ramifications.

Good governance of tourism on small islands is intertwined and tied into all of the aforementioned UNWTO INSTO issues of concern and underpins small-island tourism systems. Consequently, questions regarding the governance of tourism on small islands have implications beyond tourism, and are linked directly to the social and ecological resilience of small islands. As a result, the governance of tourism is inextricably tied to the economic and political backdrop that shapes life on a small island. Some questions that coalesce around governance include:

1. Do pre-existing tourism governance arrangements sufficiently address the need for sustainable tourism development?
2. To what extent do governance structures address local islander input into the development of tourism?
3. What monitoring and evaluation of tourism governance structures are undertaken?

CONCLUSION: INDICATING SUSTAINABLE TOURISM ON SMALL ISLANDS

Whether tourism is or is not suited to the sustainable development concerns of small islands generally is a moot point. The preponderance to veer instinctively towards tourism is understandable on small islands in lieu of the sparseness of alternative mechanisms for economic development. This is coupled with pressures not only from tourism but also from external parties keen to monetize island-based resources as seen in the increasing drive for seabed mining and the wider blue economy (D'Arcy, 2013).

The imposition of tourism invariably contributes to the reshaping of island contexts, putting new and often greater demands on the social and ecological inheritances in situ. What ensues is a regime of economic development often underpinned by external rent seekers. This comes about because entering the global travel supply chain is beyond the capacity of local networks requiring externally derived capital and know-how.

Irrespective of the extent to which economic development trickles down into the hands of islanders, over the long run we would hope that the costs of tourism and the legacies that remain are largely for them to negotiate. Where a small island's assets are parlayed into productive undertakings, questions over the extent to which they are privileged remains. The overwhelming narrative seen in small islands around the globe is that the metropolitan centre tends to accumulate the largest share of dividends. Conversely, if expansionary plans turn sour, external parties retreat far more easily than islanders who are left to deal with the long-term negative outcomes of narrowly based decisions.

The urgency to articulate indicators of sustainable tourism development is palpable because the conceptualization of small islands as ideal tourist escapes will likely intensify. This can be seen in the continuing allure of small islands to the international cruise industry. Despite the ongoing increases of port visits, little evidence can be found to confidently ascertain the extent to which islanders benefit (Cheer, 2017; Del Chiappa & Abbate, 2016; Lester & Weeden, 2004). This is mirrored in the way small-island fisheries assets have come to be developed and where large-scale factory fishing driven by foreign corporations has made this a largely unviable endeavour for locals. Looming large in the futures of small islands is the shadow of climate change, driven by emissions elsewhere, yet omnipresent on small islands.

Consequently, venturing into tourism intensification on small islands is fraught with contradiction and concern, and unless driven by informed analyses, expansionary initiatives will likely be counterproductive to sustainable development and resilience building. Herein lay the implications for a research agenda underpinned by consistent development of sustainable tourism indicators that help inform tourism development trajectories. Small islands cannot afford to experience monumental blunders given their scale, adaptive capacity limitations, and relative fragility. Blindly sailing into tourism expansion without a clear understanding of the broad range of possible outcomes puts islanders in a bind—damned if you do or damned if you don't. Often, this will be driven by an uncritical economic imperative around jobs, incomes, and other economic benefits. Yet, what good is a small island that has forsaken its social and ecological inheritances for the abiding and largely exclusive pursuit of tourism-led economic growth?

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REFERENCES

Allgood, L., & McNamara, K.E. (2017). Climate-induced migration: Exploring local perspectives in Kiribati. *Singapore Journal of Tropical Geography, 38*(3), 370-385.

Andriotis, K. (2005). Seasonality in Crete: Problem or a way of life? *Tourism Economics, 11*(2), 207-224.

Baldacchino, G. (2007). Islands as novelty sites. *Geographical Review, 97*(2), 165-174.

Bedford, R., Bedford, C., Wall, J., & Young, M. (2017). Managed temporary labour migration of Pacific islanders to Australia and New Zealand in the early twenty-first century. *Australian Geographer, 48*(1), 37-57.

Belmar, Y.N., McNamara, K.E., & Morrison, T.H. (2016). Water security in small island developing states: The limited utility of evolving governance paradigms. *Wiley Interdisciplinary Reviews: Water, 3*(2), 181-193.

Bird, G. (2019, Sepember 17). *More refugees arrive on Greek islands amid overcrowding and water shortages.*The Conversation. Retrieved from https://theconversation.com/more-refugees-arrive-on-greek-islands-amid-overcrowding-and-water-shortages-123494

Bojanic, D.C., & Lo, M. (2016). A comparison of the moderating effect of tourism reliance on the economic development for islands and other countries. *Tourism Management, 53*, 207-214.

Chandler, D., & Pugh, J. (2018). Islands of relationality and resilience: The shifting stakes of the Anthropocene. *Area*, *52*(1), 1-8.

Cheer, J.M. (2018). Geographies of marginalization: Encountering modern slavery in tourism. *Tourism Geographies, 20*(4), 728-732.

Cheer, J.M. (2017). Cruise tourism in a remote small island-high yield and low impact? In R. Dowling & C. Weeden (Eds.). *Cruise ship tourism* (pp. 408-423). Wallingford: CABI.

Cheer, J.M. (2013). Outer island tourism in the South Pacific and the millennium development goals: Understanding tourism's impacts. In K.S. Bricker, R. Black, & S. Cottrell (Eds.). *Sustainable tourism & the Millennium development goals: Effecting positive change* (pp. 23-36). Burlington: Jones and Bartlett.

Cheer, J.M., Cole, S., Reeves, K., & Kato, K. (2017). Tourism and islandscapes—Cultural realignment, social-ecological resilience and change. *Shima, 11*(1), 40-54.

Cheer, J.M., & Lew, A.A. (Eds.). (2017). *Tourism, resilience and sustainability: Adapting to social, political and economic change*. Oxford: Routledge.

Cheer, J.M., Milano, C., & Novelli, M. (2019). Tourism and community resilience in the Anthropocene: Accentuating temporal overtourism. *Journal of Sustainable Tourism, 27*(4), 554-572.

Cheer, J.M., & Peel, V. (2011). The tourism–foreign aid nexus in Vanuatu: Future directions. *Tourism Planning & Development, 8*(3), 253-264.

Cheer, J.M., Pratt, S., Tolkach, D., Bailey, A., Taumoepeau, S., & Movono, A. (2018). Tourism in Pacific island countries: A status quo round-up. *Asia & the Pacific Policy Studies, 5*(3), 442-461.

Cheer, J.M., Reeves, K.J., & Laing, J.H. (2013). Tourism and traditional culture: Land diving in Vanuatu. *Annals of Tourism Research*, *43,* 435-455.

Cole, S. (2016). A gendered political ecology of tourism and water. In M. Mostafanezhad, R. Norum, E.J. Shelton, & A. Thompson-Carr (Eds.). *Political Ecology of Tourism* (pp. 49-67). Oxford: Routledge.

Cole, S., & Browne, M. (2015). Tourism and water inequity in Bali: A social-ecological systems analysis. *Human Ecology, 43*(3), 439-450.

Connell, J. (2018). Islands: Balancing development and sustainability? *Environmental Conservation, 45*(2), 111-124.

Cuccia, T., & Rizzo, I. (2011). Tourism seasonality in cultural destinations: Empirical evidence from Sicily. *Tourism Management, 32*(3), 589-595.

Danielsson, B. (1990). Poisoned Pacific: The legacy of French nuclear testing. *Bulletin of the Atomic Scientists, 46*(2), 22-31.

D'Arcy, P. (2013). The nourishing sea: Partnered guardianship of fishery and seabed mineral resources for the economic viability of small Pacific island nations. *Sustainability, 5*(8), 3346-3367.

Del Chiappa, G., & Abbate, T. (2016). Island cruise tourism development: A resident's perspective in the context of Italy. *Current Issues in Tourism, 19*(13), 1372-1385.

Estay-Ossandon, C., & Mena-Nieto, A. (2018). Modelling the driving forces of the municipal solid waste generation in touristic islands. A case study of the Balearic Islands (2000–2030). *Waste Management, 75*, 70-81.

European Commission. (2016). *European Tourism Indicator System*. Luxembourg: European Commission. Retrieved from http://ec.europa.eu/docsroom/documents/21749

Farbotko, C. (2010). Wishful sinking: Disappearing islands, climate refugees and cosmopolitan experimentation. *Asia Pacific Viewpoint, 51*(1), 47-60.

Figueroa, B., & Rotarou, E. (2016). Sustainable development or eco-collapse: Lessons for tourism and development from Easter Island. *Sustainability, 8*(11), 1093.

Garcia, C., & Servera, J. (2003). Impacts of tourism development on water demand and beach degradation on the island of Mallorca (Spain). *Geografiska Annaler: Series A, Physical Geography, 85*(3-4)*, 287-300.*

Garrigós-Simón, F.J., Galdón-Salvador, J.L., & Gil-Pechuán, I. (2015). The economic sustainability of tourism growth through leakage calculation. *Tourism Economics, 21*(4), 721-739.

Gerrard, M.B. (2015). America's forgotten nuclear waste dump in the Pacific. *SAIS Review of International Affairs*, *35*(1), 87-97.

Global Sustainable Tourism Council (GSTC). (2013). *Global Sustainable Council Tourism Criteria for Destinations (GSTC-D)* (Version 1.0, 1 November 2013). Washington, DC: GSTC.

González-Morales, O., Álvarez-González, J.A., Sanfiel-Fumero, M.Á., & Armas-Cruz, Y. (2016). Governance, corporate social responsibility and cooperation in sustainable tourist destinations: The case of the Island of Fuerteventura. *Island Studies Journal, 11*(2), 561-584.

Grydehøj, A., & Kelman, I. (2017). The eco-island trap: Climate change mitigation and conspicuous sustainability. *Area, 49*(1), 106-113.

Hall, C.M., Prayag, G., & Amore, A. (2017). *Tourism and resilience: Individual, organisational and destination perspectives*. Bristol: Channel View Publications.

Hau'ofa, E. (1994). Our sea of islands. *The Contemporary Pacific, 6*(1), 148-161.

Hayward, P. (2012). Aquapelagos and aquapelagic assemblages. *Shima: The International Journal of Research into Island Cultures, 6*(1), 1-11.

Hernández-Delgado, E.A. (2015). The emerging threats of climate change on tropical coastal ecosystem services, public health, local economies and livelihood sustainability of small islands: Cumulative impacts and synergies. *Marine Pollution Bulletin, 101*(1), 5-28.

Hof, A., & Blázquez-Salom, M. (2015). Changing tourism patterns, capital accumulation, and urban water consumption in Mallorca, Spain: A sustainability fix? *Journal of Sustainable Tourism, 23*(5), 770-796.

Hughes, E., & Scheyvens, R. (2018). Development alternatives in the Pacific: How tourism corporates can work more effectively with local communities. *Tourism Planning & Development*, *15*(5), 516-534.

Hughes, E., & Scheyvens, R. (2016). Corporate social responsibility in tourism post-2015: A development first approach. *Tourism Geographies, 18*(5), 469-482.

Johnson, B.R., & Takala, B. (2018). Environmental disaster and resilience: The Marshall Islands experience continues to unfold. *Indigenous Policy Journal, 2*8(3), 262-266.

Kelman, I. (2018). Islandness within climate change narratives of small island developing states (SIDS). *Island Studies Journal, 13*(1), 149-166.

Keown, M. (2018). Waves of destruction: Nuclear imperialism and anti-nuclear protest in the indigenous literatures of the Pacific. *Journal of Postcolonial Writing, 54*(5), 585-600.

Kerr, S.A. (2005). What is small island sustainable development about? *Ocean & Coastal Management, 48*(7-8), 503-524.

Koh, E., & Fakfare, P. (2019). Overcoming 'over-tourism': The closure of Maya Bay. *International Journal of Tourism Cities, 6*(2), 279-296.

Kothari, U., & Arnall, A. (2017). Contestation over an island imaginary landscape: The management and maintenance of touristic nature. *Environment and Planning A*, *49*(5), 980-998.

Kurniawan, F., Adrianto, L., Bengen, D.G., & Prasetyo, L.B. (2016). Vulnerability assessment of small islands to tourism: The case of the Marine Tourism Park of the Gili Matra Islands, Indonesia. *Global Ecology and Conservation, 6*, 308-326.

Lasso, A., & Dahles, H. (2018). Are tourism livelihoods sustainable? Tourism development and economic transformation on Komodo Island, Indonesia. *Asia Pacific Journal of Tourism Research, 23*(5), 473-485.

Lester, J.A., & Weeden, C. (2004). Stakeholders, the natural environment and the future of Caribbean cruise tourism. *International Journal of Tourism Research, 6*(1), 39-50.

Lew, A.A., & Cheer, J.M. (Eds.). (2017). *Tourism resilience and adaptation to environmental change: Definitions and frameworks*. Oxford: Routledge.

Martinez-Ibarra, E. (2015). Climate, water and tourism: Causes and effects of droughts associated with urban development and tourism in Benidorm (Spain). *International Journal of Biometeorology, 59*(5), 487-501.

Michalena, E., & Hills, J. M. (2018). Paths of renewable energy development in small island developing states of the South Pacific. *Renewable and Sustainable Energy Reviews, 82*, 343-352.

Milano, C., Cheer, J.M., & Novelli, M. (Eds.). (2019). *Overtourism: Excesses, discontents and measures in travel and tourism*. Wallingford, UK: CABI.

Mohee, R., Mauthoor, S., Bundhoo, Z.M., Somaroo, G., Soobhany, N., & Gunasee, S. (2015). Current status of solid waste management in small island developing states: A review. *Waste Management, 43,* 539-549.

Moore, A. (2010). Climate changing small islands: Considering social science and the production of island vulnerability and opportunity. *Environment and Society, 1*(1), 116-131.

O'Donnell, E., & Talbot-Jones, J. (2018). Creating legal rights for rivers: Lessons from Australia, New Zealand, and India. *Ecology and Society, 23*(1), 7.

O'Driscoll, M., Bean, E., Mahoney, R.N., & Humphrey, C.P. (2019). Coastal tourism and its influence on wastewater nitrogen loading: A barrier island case study. *Environmental Management, 64*(4), 436-455.

Pratt, S. (2015). The economic impact of tourism in SIDS. *Annals of Tourism Research, 52,* 148-160.

Prince, S. (2017). Rural authenticity and agency on a cold-water island: Perspectives of contemporary craft-artists on Bornholm, Denmark. *Shima: The International Journal of Research into Island Cultures, 11*(1), 102-121.

Pyrek, C. (2016). Plastic paradise: The great Pacific garbage patch. *The Contemporary Pacific, 28*(1), 268-270.

Ridderstaat, J., Croes, R., & Nijkamp, P. (2016). The tourism development–quality of life nexus in a small island destination. *Journal of Travel Research, 55*(1), 79-94.

Robin, L. (2014, December 18). *No island is an island*. Aeon. Retrieved from https://aeon.co/essays/island-mindedness-has-no-place-in-a-cosmopolitan-age

Saarinen, J., & Gill, A.M. (Eds.). (2018). *Resilient destinations and tourism: Governance strategies in the transition towards sustainability in tourism*. Oxford: Routledge.

Santana-Jiménez, Y., & Hernández, J. M. (2011). Estimating the effect of overcrowding on tourist attraction: The case of Canary Islands. *Tourism Management, 32*(2), 415-425.

Schalansky, J. (2014). *Pocket atlas of remote islands: Fifty islands I have not visited and never will.* London, UK: Penguin.

Scheyvens, R. (2006). Sun, sand, and beach fale: Benefiting from backpackers—The Samoan way. *Tourism Recreation Research, 31*(3), 75-86.

Scheyvens, R., & Momsen, J. (2008). Tourism in small island states: From vulnerability to strengths. *Journal of Sustainable Tourism, 16*(5), 491-510.

Schwartz, R. (1999). *Pleasure island: Tourism and temptation in Cuba.* Lincoln: University of Nebraska Press.

Shakeela, A., & Weaver, D. (2018). 'Managed evils' of hedonistic tourism in the Maldives: Islamic social representations and their mediation of local social exchange. *Annals of Tourism Research, 71,* 13-24.

Sheller, M. (2004). Natural hedonism: The invention of Caribbean islands as tropical playgrounds. In D.T. Duval (Ed.). *Tourism in the Caribbean* (pp. 39-54). Oxford: Routledge.

Twining-Ward, L., & Butler, R. (2002). Implementing STD on a small island: Development and use of sustainable tourism development indicators in Samoa. *Journal of Sustainable Tourism, 10*(5), 363-387.

UNWTO. (n.d.). About INSTO. Retrieved from http://insto.unwto.org/about

UNWTO. (2016). *Rules for the operation and management for the UNWTO International Sustainable Tourism Observatories (INSTO)*. Madrid: UNWTO.

VNSO. (2012). *Alternative indicators of well-being for Melanesia: Vanuatu pilot study report.* Port Vila: Malvatumauri National Council of Chiefs.

Verlis, K. M., & Wilson, S. P. (2020). Paradise trashed: Sources and solutions to marine litter in a small island developing state. *Waste Management, 103*, 128-136.

Wells, E. C., Zarger, R. K., Whiteford, L. M., Mihelcic, J. R., Koenig, E. S., & Cairns, M. R. (2016). The impacts of tourism development on perceptions and practices of sustainable wastewater management on the Placencia Peninsula, Belize. *Journal of Cleaner Production, 111,* 430-441.

Wilkinson, P. F. (1987). Tourism in small island nations: A fragile dependence. *Leisure Studies, 6*(2), 127-146.

World Bank. (2015, January 26). Tuvalu set for more efficient and renewable energy. Retrieved from https://www.worldbank.org/en/news/press-release/2015/01/26/tuvalu-efficient-renewable-energy

Zuidema, C., Plate, R., & Dikou, A. (2011). To preserve or to develop? East bay dredging project, South Caicos, Turks and Caicos Islands. *Journal of Coastal Conservation, 15*(4), 555-563.

A cruise ship at Yokohama Osanbashi pier in Japan. Notwithstanding the current pandemic situation, Asian tourists have shown an increasing interest in cruises.

6

Prospects for cruise tourism in the South China Sea region

given the trends in international cruise tourism

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ABSTRACT

There are many islands, ports, and beautiful natural landscapes in the South China Sea. This region is also an intersection point of many religions and cultures, including Buddhism, Islam, Christianity, and Hinduism. The different natural and cultural backgrounds of each country have given birth to unique local cultural traditions. Thus, this chapter suggests that the region holds promise for developing cruise tourism, including contributing to local GDP, creating significant employment opportunities, and promoting local infrastructure construction. However, tourism may also damage the local physical and social environments, and

the possibility of pirate attacks may hinder cruise tourism growth. The chapter concludes that by strengthening cooperation between countries and collaboration between tourism enterprises, enriching cruise tourism products, creating new brands with unique characteristics, and enhancing security management, cruise tourism has the potential of becoming a new economic growth driver for the South China Sea region.

INTRODUCTION

Most islands are relatively small, both in land area and population. Due to their relative inaccessibility to mainlands, island economies tend to have a more specialized economic structure. Moreover, since their domestic market size and economic scale are often limited, it may be difficult for island economies to develop an industrial structure with comprehensive supply chains on the islands. Many small island economies have to obtain foreign exchange through exporting labour or primary agricultural and mining products. However, their isolation may also benefit them by preserving their natural landscapes. Their unique natural conditions and local cultural traditions are major marketing advantages for islands to develop tourism, which is often an important engine of local island economies.

In the South China Sea region, the beaches are more likely to be less polluted and, at least relative to the surrounding mainlands, the sky seems to be bluer, the air is fresher, and the seawater appears to be clearer. All of these are excellent conditions for tourism development, especially for cruise tourism and vacation resort development. The unique natural characteristics, the relatively pristine ecological environments, and the multicultural background possessed by countries in this region have made it a well-known tourist attraction. This chapter focuses on the trend of international cruise tourism, the advantageous conditions for cruise tourism development in this region, the opportunities and challenges this form of tourism might present to the region, as well as proposed strategies for development.

TRENDS IN GLOBAL AND ASIAN CRUISE TOURISM

Global tourism

Modern cruise travel started in the early 1960s. Safer than traveling by road or by air, cruise travel has maintained good growth momentum. In the 1970s and 1980s, the cruise industry expanded steadily. The number of cruise passengers grew from 500,000 in 1970 to 1.4 million in 1980, and to 3.8 million in 1990 (Baker, 2016).

Cruise tourism took off in the 1990s. According to Brida and Zapata-Aguirre (2010), the number of cruise tourists around the world grew by 7.4% annually between 1990 and 2008 (Baker, 2016). From 2008 to 2018, cruise passengers increased from 16.3 million to 28.52 million, registering a 74.9% growth in total and a 6.7% annual growth (BREA,

2019). From 2013 to 2018, the number of cruise passengers reached 21.31 million, 22.34 million, 23.18 million, 25.15 million, 26.72 million, and 28.52 million, respectively (BREA, 2019). Currently, cruise passengers comprise 2% of global tourists and cruise lines' revenues account for 3% of the global tourism revenue (Baker, 2016). Brida and Zapata-Aguirre (2010) also point out that cruising has been growing at a pace that is twice as fast as tourism on land. In the past 35 years, the number of cruise tourists registered an annual increase of 8.5% (Ketz, Ketz, & Jennings, 2019). It should be noted that the recent COVID-19 coronavirus pandemic has affected all forms of international tourism, but perhaps cruise tourism has been most adversely affected. Regardless of the recommendations made in this paper, it remains to be seen how cruise tourism will recover post COVID-19.

CURRENTLY, CRUISE PASSENGERS comprise 2% of global tourists and cruise lines' revenues account for 3% of the global tourism revenue.

Cruise tourism in Asia

Although a late entry as cruise ship tourism consumers, the Asian region and its residents, including ports along the coast of China, have recently embraced this form of tourism development (X. Sun, Feng, & Gauri, 2014). From 2013 to 2015, cruises operating in Asia and the number of passengers had respectively grown by 20% and 22.3% (Ni, 2017). According to the *2018 Asia Cruise Industry Ocean Source Market Report* by the Cruise Lines International Association (CLIA), the number of Asian cruise passengers reached 4.24 million in 2018, accounting for 14.8% of the global market and growing by 4.6% year on year (CLIA, 2019), and the number of cruise calls to Asian posts increased from 5,574 in 2016 to 7,196 in 2017 (CLIA, 2018). In terms of market distribution, passengers from the Chinese mainland, Taiwan region, Singapore, Japan, Hong Kong SAR, India, and Malaysia accounted for 55.8%, 9.3%, 8.8%, 6.3%, 5.9%, 5.2%, and 3.6%, respectively, of the total Asian market (CLIA, 2019). In 2018, except for China and Malaysia, the number of cruise passengers grew rapidly in other Asian countries, including Singapore, India, Indonesia, the Philippines, South Korea, Thailand, and Vietnam (see Table 6.1). CLIA estimated that this Asian cruise market would continue to expand (CLIA, 2019). At the same time, cruise scheduling can be volatile. For example, deployment of cruise ships in Asia (including China) as a share of total deployments remained the same or declined slightly from 2017 to 2018 (Lau & Yip, 2020).

CONDITIONS FOR THE SOUTH CHINA SEA REGION COUNTRIES TO DEVELOP CRUISE TOURISM

A political foundation

Countries in the region have close bonds in terms of geography, culture, and customs. They have experienced long historical exchanges in economy, trade, and culture, which have laid a good foundation for cooperation. In 1997, China and the ASEAN group of countries established a partnership of mutual trust oriented to the 21st century (MFA, PRC, n.d.). Although China and some South China Sea countries have disputes regarding territory and maritime interests, in the *Declaration on the Conduct of Parties in the South China Sea* (DoC) signed in 2002, the relevant parties agreed to resolve disputes through peaceful means and not resort to force or to the threat of force under any

TABLE 6.1: **Number of Cruise Passengers in Asian Countries from 2016 to 2018 (unit: 10,000 passengers)**

Countries/Regions	2016	2017	2018
Mainland China	211.29	239.67	236.74
Taiwan, China	29.93	37.35	39.12
Singapore	21.42	26.66	37.30
Japan	20.73	25.47	26.62
Hong Kong SAR, China	12.73	22.98	24.96
India	14.85	17.24	22.09
Malaysia	9.98	18.75	15.02
Indonesia	3.32	4.65	7.21
Philippines	2.64	4.12	6.14
Republic of Korea	3.20	3.91	4.44
Thailand	5.05	2.64	3.03
Vietnam	0.59	0.65	1.00

Source: *2018 Asia Cruise Industry Ocean Source Market Report (CLIA)*

circumstances so as to maintain peace and stability in the South China Sea (MFA, PRC, n.d.). Following up in October 2003, China and ASEAN signed the *Joint Declaration on ASEAN-China Strategic Partnership for Peace and Prosperity* and China officially acceded to the *Treaty of Amity and Cooperation in Southeast Asia,* which has further enhanced mutual political trust (MFA, PRC, n.d.). The China-Vietnam joint statement signed in November 2017 stressed that the two sides agreed to continue the full and effective implementation of the DOC and to reach the *Code of Conduct in the South China Sea* (CoC) as soon as possible on the basis of consensus. The two countries will work together to properly manage maritime disputes, to refrain from taking actions that might complicate or escalate the situation, and to maintain peace and stability in the South China Sea (Belt and Road Portal, n.d.). The *China-ASEAN Strategic Partnership Vision 2030* signed in November 2018 reiterated China and ASEAN's commitment to maintaining and promoting peace, security, and stability of the South China Sea (Belt and Road Portal, n.d.).

The establishment of the China-ASEAN Free Trade Area (CAFTA) has further deepened cooperation between China and ASEAN. Cruise tourism is an important component of service trade in this Free Trade Area. According to the *Plan of Action to Implement the Joint Declaration on ASEAN-China Strategic Partnership for Peace and Prosperity (2016-2020)* signed in March 2016, China and ASEAN committed to strengthening links and cooperation between tourism authorities at all levels and tourism enterprises, encouraging the sharing of data and information, and jointly developing tourism products and delivering cooperation projects (Belt and Road Portal, n.d.). In May 2018, China and Indonesia signed a joint statement on enhancing infrastructure connectivity and on building the regional comprehensive economic corridor under the framework of the Belt and Road Initiative and the Global Maritime Axis strategy (MFA, PRC, n.d.). China also signed a joint statement with Malaysia in August 2018 to enhance, deepen, and expand cooperation in tourism. In addition, the year 2020 was designated as the China-Malaysia Year of Culture and Tourism (Belt and Road Portal, n.d.). In November 2018, China and the Philippines signed a joint statement reaffirming both sides' commitment on encouraging their citizens to travel to each other's country and making joint efforts on improving infrastructure for tourism (MFA, PRC, n.d.). The joint statement between China and Singapore in 2018 made clear the readiness of the two countries to enhance interconnectivity through different means of transportation in order to encourage tourism (MFA, PRC, n.d.). The above-mentioned bilateral and multilateral documents have laid an important political foundation for the development of cruise tourism in the South China Sea region.

Natural and human resources

The South China Sea, which is over 300 million km^2 in size, is a semi-enclosed sea connected to the Pacific in the east and to the Indian Ocean in the west. In this region, cruise routes can access regions such as Hong Kong, Macao, and Taiwan, and countries such as Japan and the Republic of Korea in the east and northeast; arrive at Vietnam, the Philippines, Indonesia, Singapore, Malaysia, Thailand, and Cambodia in the south; and extend as far west as Sri Lanka, Bangladesh, India, and the Maldives in the west. Therefore, the region is in an excellent location for a network for cruise tourism development that relies on multiple port stops over a short period of time (Jeon, Duru, & Yeo, 2019). In terms of geographic location, natural features, and climate conditions, the South China Sea region can compete effectively with the world's famous cruise tourism centres such as the Mediterranean, the Caribbean, and the Baltic (Lau & Yip, 2020; Singh, 1999).

IN TERMS OF GEOGRAPHIC location, natural features, and climate conditions, the South China Sea region can compete effectively with the world's famous cruise tourism centres such as the Mediterranean, the Caribbean, and the Baltic.

There are a large number of islands and ports scattered throughout the South China Sea region. The key cruise ports in this region include Penang, Langkawi, Port Klang, and Malacca of Malaysia; Phuket, Ko Samui, and Laem Chabang of Thailand; Halong Bay, Da Nang, and Ho Chi Minh City of Vietnam; Sihanoukville of Cambodia; Bali and Jakarta of Indonesia; Manila, Boracay, Subic Bay, and Puerto Princesa of the Philippines; Muara of Brunei; and Hong Kong, Sanya, Haikou, and Shenzhen of China. Classic cruise routes provided by cruise enterprises in this region include tours from Singapore to Malaysia via Thailand, Singapore to Vietnam via Thailand, Hong Kong to Vietnam, and Hong Kong to Singapore.

Islands in the South China Sea possess white beaches, pristine environments, and picturesque landscapes (Ma, Fan, & Zhang, 2018; Singh, 1999). The perception that this region has unique and exotic destinations and can provide a diversity of itineraries gives it a significant advantage for cruise tourism (Singh, 2000). For example, Halong Bay in Vietnam was listed by UNESCO as one of the World Natural Heritage sites in 1993 (Zhao, 2002). The South China Sea region is an intersection point of Buddhism, Islam, Christianity, and Hinduism. In the long course of history, different natural and historic conditions have given birth to unique local cultural traditions providing this region with extremely rich cultural resources. For example, Angkor Wat of Cambodia is a world-renowned historic and cultural site. With more than 600 Buddhist stone structures, it is the largest temple complex in the world and is known as one of the four miracles of the ancient oriental civilization (Deng, 2006). Hue, the ancient capital city of Vietnam, Hoi An, and the My Son sanctuary, located near Da Nang in Vietnam, are

listed as world cultural heritage sites (Zhao, 2002). In Ho Chi Minh City, known as the 'Oriental Paris', tourists can visit the French-style Notre Dame Cathedral, as well as French- and American-style buildings and other historical architectures. The elegant traditional dance of Bali takes a unique place in the world's dance arts. The delicate wooden sculptures and relief carvings produced in Bali possess strong local features (Li, 2012b). Thus, Bali is known as an island of temples, an island of art. These tourist sites with their time-honoured histories have long been the choice of European and American visitors and can enhance the attractiveness of cruise tourism port itineraries.

This cruise ship in Hong Kong harbour is taking its passengers to Singapore. This is one of the classic cruise ship routes in the South China Sea region.

Measures taken by different countries

National governments in the region have introduced various measures to develop the cruise tourism industry. In April 2018, Chinese President Xi Jinping announced that the Chinese central government supports Hainan Island to become a pilot free trade zone while at the same time gradually exploring and planning the building of a free trade port (Xi, 2018). In the guidance released by the Chinese central government on supporting comprehensive reform and opening up of Hainan, it is proposed that Hainan be built into an international tourism consumption centre and an important gateway for China to the Pacific and the Indian Oceans (The State Council of the P.R.C., 2018). The *Implementation Plan for Constructing Hainan Province into an International Tourism and Consumption Center,* issued by China's National Development and Reform Commission on 18 December 2018, has provided Hainan with the policy framework to

A seaport on the island of Phu Quoc in Vietnam. Maritime and island tourism is a priority of the Vietnamese goverment, which (pre-COVID-19) aimed at attracting 10.5 million international tourists by 2020 and 18 million by 2030.

improve the supply of international tourism products, develop cruise tourism, promote cooperation on cruise tourism with countries along the Maritime Silk Road, and extend to Hainan the 15-day visa-free cruise entry for foreign tourist groups (National Development and Reform Commission, 2018).

In 2013, the Vietnamese government approved *Vietnam's Tourism Master Plan 2020, Vision 2030*. The plan identifies maritime and island tourism as priority products. It aims at attracting 10.5 million international tourists by 2020 and 18 million by 2030, with a 5.2% annual growth (Huang & Zhang, 2015). In recent years, Vietnam has also taken a host of measures on developing cruise tourism, such as allowing foreign cruise ships to park at Phu Quoc Island and Con Dao Island, and lowering charges for cruise ships that frequently enter the country (Thang, 2018).

Thailand has also made efforts to revise its investment plan so as to promote the development of the ports of Laem Chabang and Bangkok through public-private partnerships (Singh, 2000). Indonesia invited cruise operators to its major destinations for route design. Even though it accounts for only 5% of passenger and crew visit days in Southeast Asia, the government is improving the infrastructure at cruise ports like Benoa of Bali to provide more comprehensive services (Nugraha, 2016). The Philippines and Vietnam signed a document on strengthening cooperation in the field of cruise tourism development from 2014 to 2016 (Sun, 2018). Singapore set up a specialized agency for cruise industry development in 1989 and is now one of the most influential cruise tourism sites in the region, especially connecting Asia to Australia (Jeon, Duru, & Yeo, 2019). Cruise infrastructure construction, cruise business development, and

Boat transportation on the Chao Phraya River at Bangkok, Thailand. Investment in developing the port of Bangkok,to facilitate cruise tourism, is happening through public-private partnerships.

cruise industry capacity improvement have been the core strategies in Singapore. Meanwhile, the Singaporean government has been working with stakeholders on forging an industrial cluster focusing on home port operation.

Government development of cruise tourism in the region

As is the case everywhere, cruise tourism in Asia can be a highly competitive industry, with every nation in the region lobbying cruise ship companies to make their nations hubs/home ports or, at the very least, destinations along the way (Hsu, 2015). At the China-ASEAN Governors/ Mayors' Dialogue, a parallel session of the 2018 Boao Forum for Asia, participants from Cambodia, Sri Lanka, Thailand, Laos, and Singapore, as well as other island and coastal states, had an in-depth discussion on cruise tourism cooperation, opening new cruise routes, providing visa facilitation for cruise passengers, and promoting cruise tourism (X. Wang, 2018). The Alliance of Cruise Tourism Cities along the 21st Century Maritime Silk Road was established and a joint initiative signed (X. Wang, 2018). All stakeholders reached consensus to further open visa policies for cruise passengers at cruise ports of entry, removing policy barriers gradually so as to make it easier for cruise ships to enter each other's ports, and on opening up more sectors of the cruise industry. The parties also agreed to share tourism resources and markets, to optimize cruise routes, to make the routes better connected, and to improve infrastructure and services at cruise ports (X. Wang, 2018). This provides a good foundation for future development of the cruise industry in the South China Sea region.

FUTURE OPPORTUNITIES FOR ECONOMIC DEVELOPMENT

In general, the development of cruise tourism capacity has beneficial economic outcomes, including generating additional tourism revenue, assisting local companies and creating local jobs, and attracting foreign investment. This section of the chapter explores these potential economic benefits.

Infrastructure development

Cruise tourism is a comprehensive industry covering shipbuilding, port services, logistics, transportation, sightseeing, catering, shopping, banking, and insurance. Large luxury cruise ships are essential for cruise tours. To develop cruise tourism, one needs to build ports and supporting facilities to attract cruise calls.

CRUISE TOURISM IS A comprehensive industry covering shipbuilding, port services, logistics, transportation, sightseeing, catering, shopping, banking, and insurance.

At the 2014 APEC Summit, President Joko Widodo announced that the Indonesian government would invest US$57.4 billion in the coming five years to build 24 commercial ports and 1,481 non-commercial ports (Liu, 2015). Thailand has been making efforts on turning Koh Chang, Patong, Phuket, Krabi, and Ko Samui into new cruise destinations. Singapore now has a deep-water port that can handle eight cruise ships at the same time.

In 2015, the Department of Tourism of the Philippines and the Philippine Ports Authority worked together to upgrade cruise infrastructure in Manila, Puerto Princesa, Subic Bay, and Boracay, and planned to turn the Sicogon Island into a modernized destination for cruise tourism. The Sanya Phoenix Island Cruise Terminal (SPICT) in Hainan has put in CNY18 billion on the construction of one 100,000-ton berth, two 150,000-ton berths, and two 225,000-ton berths (Xu, 2016). The Xiuying port of Haikou has planned to turn a 100,000-ton dock into three 50,000-ton docks, and to build a 150,000-ton berth and a 225,000-ton berth (Sun, 2018).

This investment in infrastructure to entice cruise lines is not without controversy. Multi-billion-dollar investment in port infrastructure is not guaranteed to pay for itself for all destinations, especially in the volatile and competitive cruise tourism environment. Without proper planning, people may question the value of this investment (Hsu, 2015).

Contribution to local GDP, employment, and investment

As a growing component of global tourism, the cruise industry has the potential to be a strong engine for economic and social progress in coastal areas. Ports charge cruise lines for replenishment, waste processing, ship maintenance and repair. They also often charge a head tax for every passenger on board, although these fees can vary significantly across destinations. Cruise products not only mean huge opportunities for travel agencies and cruise line operators, but also economic benefits for ports of call, especially for homeports (Brida & Zapata-Aguirre, 2008).

According to CLIA (2018), the number of passengers and crew members who took on shore visits in 2018 grew 6.9% (14.36 million) from the previous year, and these individuals spent US$67.97 billion, an increase of 11.4%. Their direct and indirect spending added 1.177 million jobs (CLIA, 2019). In 2020, the gross output of the cruise industry is expected to reach US$50 billion (Ketz, Ketz, & Jennings, 2019).

Despite all of these optimistic projections, a growing body of research is questioning the economic benefits associated with cruise tourism, especially if the research regarding the anticipated benefits is coming from the cruise lines and their own associations (Brida & Zapata-Aguirre, 2010; Klein, 2011; Lester & Weeden, 2004). For example, Cheer (2017) notes that industry-generated research needs to be balanced by community-level independent research on the benefits for their specific regions. MacNeill and Wozniak (2018) found that, despite the optimistic picture painted by the

Singapore can handle eight luxury ships like this at a time. Prior to the recent shutdown of cruise ships as a result of the COVID-19 pandemic, cruise tourism was the fastest-growing segment of global tourism.

cruise ship industry, local tourism boosters and even the World Tourism Organization, the anticipated gains in employment and income often did not happen. The nature of cruise tourism, where meals and accommodation are provided on board, means that the level of spending by disembarking passengers is much less than is the case for other kinds of tourists (Larsen & Wolff, 2016; Santos, Radicchi, & Zagnoli, 2019). There were also increased problems related to corruption and, as we discuss below, substantial concerns regarding impacts on the local marine and terrestrial natural environments. As implied above, this was especially the case in those port regions that had little regulation and low tax rates, and failed to engage local communities in tourism planning.

INDUSTRY-GENERATED RESEARCH needs to be balanced by community-level independent research on the benefits for their specific regions.

Development and protection of local culture

Tourists hope not only to enjoy the natural scenery but also to experience diverse local cultures. Unique cultures, often expressed in ways that are considered exotic to the traveller, may be the most enriching and intriguing part of travelling, the most distinctive brand of local tourism, and the key component in allowing a destination to differentiate itself from among all the other possible choices open to tourists. It is therefore not surprising that countries and regions attach great importance to the development and protection of local traditions and cultures. For example, Hawai'i pools the strength of government, the private sector, and local residents to brand the icons of Hawai'i tourism, including the word 'Aloha', the exotic Hula show, the Hawaiian lei, and the distinctive Hawaiian music and record albums (Schroeder & Borgerson, 2008). In this way, the island has protected, enriched, and promoted local culture and tradition (Li, 2012a). Others have argued that modern tourism marketing has also objectified and culturally appropriated the symbols of indigenous culture (Gertner, 2019; Schroeder & Borgerson, 2008)

To protect its cultural and historic relics and local-style architecture, the Indonesian island of Bali invited European and US experts to formulate a 30-year development plan for local tourism back in the 1970s (Li, 2012b). While preserving such indigenous sites as the Ubud painting centre and the Mas carving centre, Bali has also developed religious tours featuring temple visits and festivals, art tours featuring folk painting and wooden sculptures, and dream tours featuring wedding rituals. These activities highlight the most typical components of the local culture that tourists can relate to, thus significantly boosting the attractiveness of the area to international tourists (Li, 2012b). Picard (2008) suggests that tourism neither polluted nor created a cultural renaissance in Bali. Instead, it encouraged a new cultural identity among the Balinese, allowing them to both exploit and protect their heritage.

RISKS AND CHALLENGES

This chapter takes as a premise that islands in the South China Sea region have unique, attractive, but also fragile landscapes. One of the ongoing challenges here and in all regions where mass tourism exists, is how to manage tourism development sustainably given the risks associated with bringing tourists to these areas. In the case of this region and cruise tourism, there is an added security risk: how to protect cruise ships from piracy.

Piracy in the Strait of Malacca has long been a threat to ship owners and the mariners who ply the 900 km-long (550 miles) sea lane, and is an obvious threat to mass tourism.

Piracy

The South China Sea and, by extension, the Malacca Strait is the key junction that connects the Pacific and the Indian Oceans. Every year, tens of thousands of commercial ships pass through this sea. It has been estimated that 90% of China's trade and 80% of its oil imports travel through this region (Y. Deng, 2010). Ships navigating in this area have long been victims of pirate attacks (Storey, 2016). In 2014 alone, 42 pirate attacks took place in the South China Sea (J.C. Wang, 2018). To fight these attacks, starting in 2004, Malaysia, Indonesia, and Singapore began to increase the frequency of navy patrols covering the Malacca Strait. However, due to limited capacity of the three navies, and the complex marine topography bordering the three marine states, the number of pirate attacks still remains high. Although there have been no reports of cruise ships being attacked by pirates so far, the potential danger of developing cruise tourism in waters where pirate incidents are frequent should be taken seriously by relevant countries.

Damage to the physical environment

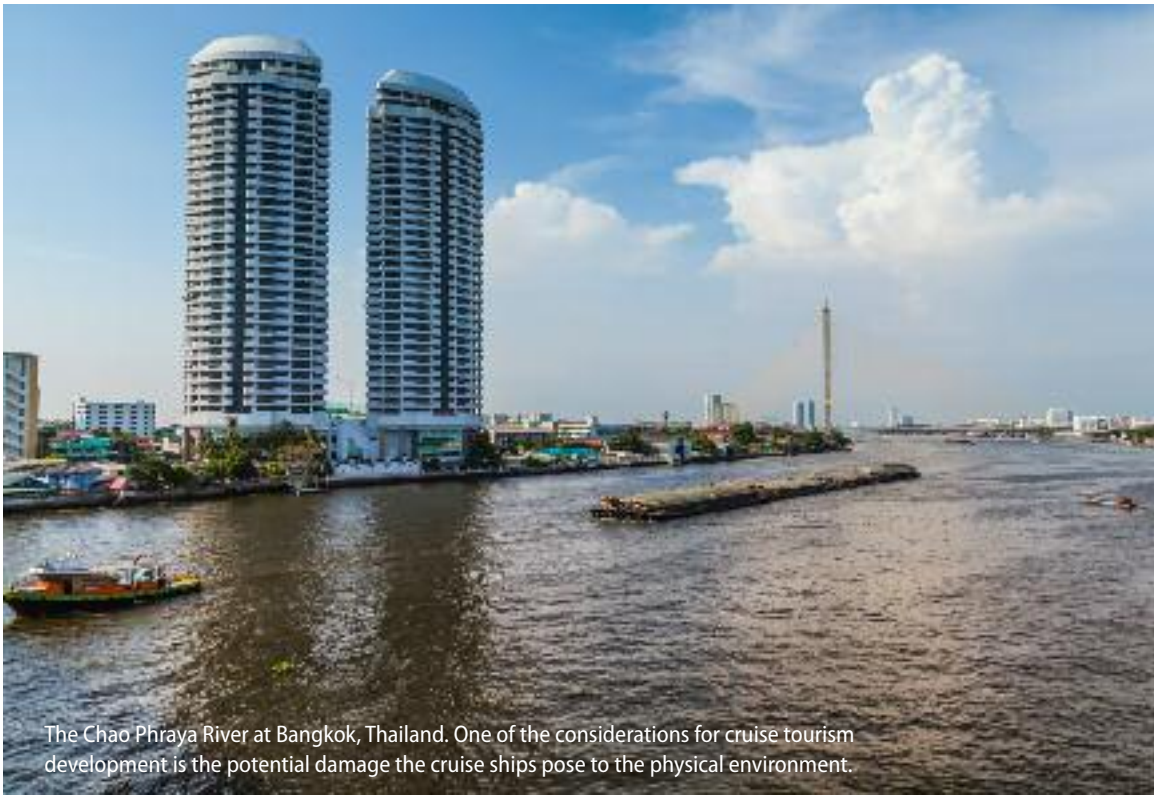
Cruise ships can also cause damage to the local natural environments at island ports. For example, a docking cruise ship brings air pollution, greased bilge water, sewage, and household waste. According to the US Environmental Protection Agency (EPA), an average cruise ship produces 21,000 gallons of sewage, 170,000 gallons of grey water, 6,400 gallons of oily bilge water, and one ton of waste daily (Ketz, Ketz, & Jennings, 2019; Moscovici, 2017). They also incinerate between 75 and 85% of their garbage, contributing to smog in coastal communities (Moscovici, 2017). To give some indication of the significance of cruise ships, Butt (2007) estimated that although cruise ships represent only 1% of the global merchant fleet, they produce approximately 25% of all of the waste generated by the merchant fleet. They also pose a serious threat to coral reefs and marine organisms (Smith, 1988). Although the cruise industry has taken measures such as waste recycling and zero sewage discharge to mitigate environmental pollution, processed sewage can still cause substantial negative impacts on coastal creatures and coral reefs (Ketz, Ketz, & Jennings, 2019).

ALTHOUGH CRUISE SHIPS represent only 1% of the global merchant fleet, they produce approximately 25% of all of the waste generated by the merchant fleet. They also pose a serious threat to coral reefs and marine organisms.

Small islands often have extremely vulnerable ecological systems making them more susceptible to external influence. Although it may create jobs and other economic spillovers during the construction phase, infrastructure constructed on an island for the cruise industry such as docks, roads, scenic spots, and shopping malls not only erodes the topographic features of the island but also encroaches upon the habitats of island creatures (Price, 2006). This tends to disrupt the biological community and ecological systems unique to islands. Compounding this vulnerability, it is very difficult to restore damaged ecological systems that contain endemic species. For example, when Vanuatu and Fiji cleared mangrove forests for land reclamation and dredging projects at estuaries for tourism development, serious damage was done to their marine ecosystems (Lu, 2007).

Social and cultural shock

A considerable body of research has pointed out the impacts of tourists interacting with residents of cruise ship port communities, noting the conflicts that may emerge as a result of differences in family values, interpersonal relations, behaviours, moral choices, and traditional rituals (Brida & Zapata-Aguirre, 2010; Fisher, 2004; Tolkach & Pratt, 2019; Wray, Espiner, & Perkins, 2010). In a study on the impacts of cruise tourism on the port communities around Trujillo, Honduras, in the Caribbean, MacNeill



The Chao Phraya River at Bangkok, Thailand. One of the considerations for cruise tourism development is the potential damage the cruise ships pose to the physical environment.

and Wozniak (2018) found there were improvements in cultural capital and security but that these social benefits were offset by increased corruption and higher levels of poverty and inequality. Although measurable economic benefits may have emerged, much of this was captured by local elites and foreign companies rather than the local populations. Still other research has suggested that a massive influx of cruise tourists descending simultaneously on older, historic communities causes congestion and a loss of authenticity (Kirtsoglou & Theodossopoulos, 2004; Santos, Radicchi, & Zagnoli, 2019). Many of these impacts are linked to the broader concept of over-tourism, where the number of tourists and their impact overwhelms the capacity of the local community, and the positive messaging from local cruise and tourist advocates overwhelms dissent by local citizens (Alexis, 2017; Cheer, 2020).

This being said, one should be cautious about assumptions regarding the cruise tourism economic benefits and social costs in port communities. As Scheyvens and Momsen (2008) note, tourist communities are not passive actors in this process; they are able to exert change to achieve their goals. Also, stories regarding the "bad behaving" tourists are often sensationalized and paint all interactions in a negative light (Alexis, 2017).

CONCLUSIONS

Prior to the recent shutdown of cruise ships as a result of the COVID-19 pandemic, cruise tourism was the fastest-growing segment of global tourism. It is still too early to predict accurately how the fears generated by the transmission of COVID-19 and future infectious diseases will affect the demand for cruise tourism, the island communities dependent on cruise ships, and the very business model used in the industry. In the short term, and especially prior to the widespread availability of COVID-19 vaccinations, we should not expect much cruise tourism, and some cruise line companies will likely be challenged to survive. It is also likely that, even after treatments or a vaccine are available to COVID-19, the threat of infectious diseases being brought to port communities by cruise passengers and crew may increase the level of animosity among local residents, tourists, and tourist business advocates. There are also enormous current and planned investments in cruise ships, in port facilities, and in local cruise-related businesses that will continue because their business model is based on a much longer time horizon than this one event. As such, it is extremely unlikely that cruise tourism will disappear altogether. Rather, it will likely need to reinvent itself in order to meet the needs of its clientele, the various port governments, and those living in home ports and ports of call.

IT IS STILL TOO EARLY TO PREDICT accurately how the fears generated by the transmission of COVID-19 and future infectious diseases will affect the demand for cruise tourism, the island communities dependent on cruise ships, and the very business model used in the industry.

Apart from the impact of COVID-19, for the future development of the industry, island countries and territories in the region and cruise lines still need to deal with the existing issues and challenges. First, it is necessary for island destinations in the South China Sea region to improve their security management and emergency response in order to make cruise tourism in the region more attractive, safer, and enjoyable. Second, in order to ensure the sustainable development of the cruise industry, multilateral agreements will have to be implemented by the jurisdictions in the region to create and enforce regulation and rules regarding the environmental operation of cruise ships (e.g., discharging of waste), especially when they are in international waters. Closer to shore, cruise line companies will need to play an active role in terrestrial and marine protection and restoration. Third, tax incentives may need to be provided to cruise lines to encourage them to choose a port. However, this must be done in a coordinated manner so that the ports in the region are not competing among themselves, inevitably leading to diminished economic benefits and greater social problems. From the perspective of the port city, they will need to provide services including cruise ship repairing, refueling, and replenishing of supplies and foodstuffs so as to further extend

the local multiplier effects. Fourth, jurisdictions in the region may need to develop incentives to encourage passengers to spend money locally, including providing visa-free transit, tax refund policies, catering, accommodation, and sightseeing services. Fifth, in order to encourage demand, it is important to develop new and tailored cruise tourism products, such as 'high-speed rail plus cruise' routes and 'airplane plus cruise' routes, as well as cruise routes of different lengths and prices. Sixth, special attention should be paid to local culture preservation and development, and to display the unique features of each destination by holding festivals, sporting events, and performances in order to differentiate the destinations. Seventh, the governance of cruise management needs to be strengthened within the region. For example, the Alliance of Cruise Tourism Cities along the 21st Century Maritime Silk Road may need to play an important role in strengthening cooperation between cruise tourism enterprises within and outside the region, including providing 'multi-stops in one trip', code sharing, and baggage interline services that make traveling more convenient. Eighth, it is necessary to take full advantage of new media and the big data platforms to achieve a more targeted marketing. Finally, efforts should be made to establish a data platform for data sharing and human resources, as well as to obtain intelligence support for the development of cruise tourism in the South China Sea region. Overarching all of these recommendations is that there needs to be an active engagement with the populations in the port cities and the surrounding regions in developing any plan for cruise tourism development in their areas. These are the people who should benefit from an investment in cruise tourism and will also suffer the consequences if there are problems. If they are not engaged from the beginning, and development is carried out in a typical top-down manner, social, environmental, and economic problems are inevitably going to emerge.

AS A LATECOMER TO TOURISM in the region, the cruise sector can learn from what has and has not worked elsewhere in order to make this an activity that benefits the regional economies while maintaining a harmonious and sustainable relationship to the local physical environment and the needs of local populations.

Notwithstanding the current pandemic situation, Asian tourists have shown an increasing interest in cruises. Given the proximity of these potential tourists to the attractions of the South China Sea region, there is enormous potential to establish and grow cruise tourism in the region. As a latecomer to tourism in the region, the cruise sector can learn from what has and has not worked elsewhere in order to make this an activity that benefits the regional economies while maintaining a harmonious and sustainable relationship to the local physical environment and the needs of local populations.

REFERENCES

Alexis, P. (2017). Over-tourism and anti-tourist sentiment: An exploratory analysis and discussion. *Ovidius University Annals, Economic Sciences Series, 17*(2), 288-293.

Baker, D. (2016). The cruise industry: Past, present and future. *Journal of Tourism Research, 14,* 141-151.

Belt and Road Portal. (n.d.). Retrieved from https://www.yidaiyilu.gov.cn/info/iList.jsp? cat_id=10008

BREA. (2019). *The global economic contribution of cruise tourism in 2018* (Report prepared for CLIA). Washington, DC: CLIA.

Brida, J.G., & Zapata-Aguirre, S. (2010). Cruise tourism: Economic, social-cultural and environment impacts. *International Journal of Leisure and Tourism Marketing, 1*(3), 205-226.

Brida, J.G., & Zapata-Aguirre, S. (2008, November 7-9). *The impacts of the cruise industry on tourism destinations* [Conference presentation]. Congress on Sustainable Tourism as a Factor of Local Development, Monza, Italy.

Cheer, J.M. (2020). Tourism on small islands: The urgency for sustainability indicators. In J. Randall (Ed.). *The 21st Century Maritime Silk Road Islands Economic Cooperation Forum: Annual report on global islands 2019* (pp. 131-54). Charlottetown: Island Studies Press.

Cheer, J.M. (2017). Cruise tourism in a remote small island—High yield and low impact? *Cruise Ship Tourism, 2,* 408-423.

Cruise Lines International Association (CLIA). (2019). *Asia cruise industry ocean source market report 2018*. Retrieved from https://cruising.org/-/media/research-updates/research/ 2018-asia-ocean-source-market.pdf

Cruise Lines International Association (CLIA). (2018). *Asia cruise trends, 2018 edition.* Retrieved from http://cliaasia.org/wp-content/uploads/2018/08/asia-cruise-trends-2018.pdf

Deng, S. (2006). The vigorous Cambodia's tourist industry. *Around Southeast Asia, 5*, 8-12.

Deng, Y. (2010). China's legal enforcement on anti-piracy in South China Sea. *Asian Social Science, 6*(6), 94-98.

Fisher, D. (2004). The demonstration effect revisited. *Annals of Tourism Research, 31*(2), 428-446. DOI:10.1016/j.annals.2004.01.001

Gertner, R.K. (2019). The impact of cultural appropriation on destination image, tourism, and hospitality. *Thunderbird International Business Review, 61*(6), 873-877.

Hsu, C.H.C. (2015, June 15-17). *Competitive landscape of Asian cruise ports* [Conference presentation]. Travel and Tourism Research Association (TTRA) Annual conference, Portland, Oregon. Retrieved from https://scholarworks.umass.edu/ttra/ttra2015/Academic_Papers_Visual/11

Huang, Y., & Zhang, S. (2015). Vietnam's efforts to develop its marine economy in recent years. *The Journal of South China Sea Studies, 1,* 102.

Jeon, J.W., Duru, O., & Yeo, G.T. (2019). Cruise port centrality and spatial patterns of cruise shipping in the Asian market. *Maritime Policy & Management, 46*(3), 257-276.

Ketz, D., Ketz, R., & Jennings, C. (2019, March 1-3). *Managing the impacts of cruise ship tourism* [Conference presentation]. Life Beyond Tourism's 21st General Assembly and International Symposium: Heritage as a Builder of Peace, Florence, Italy.

Kirtsoglou, E., & Theodossopoulos, D. (2004). They are taking our culture away: Tourism and culture commodification in the Garifuna community of Roatan. *Critique of Anthropology, 24*(2), 135-157. DOI:10.1177/0308275X04042650

Klein, R.A. (2011). Responsible cruise tourism: Issues of cruise tourism and sustainability. *Journal of Hospitality and Tourism Management, 18*(1), 107-116.

Larsen, S., & Wolff, K. (2016). Exploring assumptions about cruise tourists' visits to ports. *Tourism Management Perspectives, 17*, 44-49.

Lau, Y.Y., & Yip, T.L. (2020). The Asia cruise tourism industry: Current trend and future outlook. *The Asian Journal of Shipping and Logistics*. Advance online publication. DOI: 10.1016/j.ajsl.2020.03.003

Lester, J.A., & Weeden, C. (2004). Stakeholders, the natural environment and the future of Caribbean cruise tourism. *International Journal of Tourism Research, 6*(1), 39-50.

Li, Z. (2012a). A comparative study on the development of cultural tourism resources between Hawai'i and Hainan. *Knowledge Economy, 10*, 125-126.

Li, Z. (2012b). Cultural tourism resources development and utilization in Bali Island. *Business, 5,* 136-137.

Liu, C. (2015). On Indonesia's strategic conception of 'Global Maritime Fulcrum'. *Modern International Relations, 4,* 8-13.

Lu, L. (2007). Research progress and reflection of island tourism. *Journal of Geographical Science, 27*(4), 579-586.

Ma, M.Z., Fan, H.M., & Zhang, E.Y. (2018). Cruise homeport location selection evaluation based on grey-cloud clustering model. *Current Issues in Tourism, 21*(3), 328-354.

MacNeill, T., & Wozniak, D. (2018). The economic, social, and environmental impacts of cruise tourism. *Tourism Management, 66*, 387-404

MFA, PRC. (n.d.). Ministry of Foreign Affairs, People's Republic of China. Retrieved from https://www.fmprc.gov.cn/web/ziliao674904/tytj674911/tyfg674913

Moscovici, D. (2017). Environmental impacts of cruise ships on island nations. *Peace Review, 29*(3), 366-373.

National Development and Reform Commission, PRC. (2018). The implementation plan for constructing Hainan Province into an international tourism and consumption center. Retrieved from http://www.hainan.gov.cn/hainan/zhl/201812/aa6bedcd965c4a0387eb8e554b28dafc.shtml

Ni, J. (2017). Analysis to the market pattern and current situation of cruise tourism in Asia. *Straits Science, 9,* 47.

Nugraha, T.C.B. (2016). Cruise ship: The backbone of future tourism industry in Indonesia. In *Proceedings of the international conference on tourism, gastronomy, and tourist destination* (ICTGTD 2016). Atlantis Press. DOI: 10.2991/ictgtd-16.2017.25

Picard, M. (2008). Balinese identity as tourist attraction: From 'cultural tourism' (pariwisata budaya) to 'Bali erect' (ajeg Bali). *Tourist Studies, 8*(2), 155-173.

Price, A.R. (2006). *Cruise ships and sustainability in Bermuda: A preliminary evaluation*. Prepared for Bermuda National Trust. Cambridge, MA: Industrial Economics, Inc.

Santos, M., Radicchi, E., & Zagnoli, P. (2019). Port's role as a determinant of cruise destination socio-economic sustainability. *Sustainability, 11*(17), 4542.

Scheyvens, R., & Momsen, J. (2008). Tourism in small island states: From vulnerability to strengths. *Journal of Sustainable Tourism, 16*(5), 491-510.

Schroeder, J.E., & Borgerson, J.L. (2008). Packaging paradise: Organizing representations of Hawaii. In A. Prasad (Ed.). *Against the grain: Advances in postcolonial organization studies* (pp. 32-35). Copenhagen: Copenhagen Business School Press.

Singh, A. (2000). The Asia Pacific cruise line industry: Current trends, opportunities and future outlook. *Tourism Recreation Research, 25*(2), 49-61.

Singh, A. (1999). Growth and development of the cruise line industry in Southeast Asia. *Asia Pacific Journal of Tourism Research, 3*(2), 24-31.

Smith, S.H. (1988). Cruise ships: A serious threat to coral reefs and associated organisms. *Ocean and Shoreline Management, 11*(3), 231-248.

Storey, I. (2016). Addressing the persistent problem of piracy and sea robbery in Southeast Asia. *Perspective, 30*, 1-11.

Sun, X., Feng, X., & Gauri, D. K. (2014). The cruise industry in China: Efforts, progress and challenges. *International Journal of Hospitality Management, 42*, 71-84.

Sun, Y. (2018). *Cruise industry cooperation and regional economic development in the South China Sea navigation zone*, 34-44, Beijing: Intellectual Property Publishing House.

Thang, H.Q. (2018). Tourism with the integration and development of Vietnam- Southeast Asia. *International Relations, 6*(3), 188-194.

The State Council of the P.R.China. (2018). Guiding opinions of the Central Committee of the CPC and the State Council on supporting Hainan for comprehensively deepening reform and opening-up. http://www.gov.cn/ gongbao/content/2018/content_5288811.htm

Tolkach, D., & Pratt, S. (2019). Globalisation and cultural change in Pacific island countries: The role of tourism. *Tourism Geographies, 31,* 1-26. DOI:10.1080/14616688.2019.1625071

Wang, J.C. (2018). A study on the governance mechanism of piracy in the South China Sea: Current situation and future prospects. *Marine History Research, 12,* 355-373. Beijing: Social Sciences Academic Press.

Wang, X. (2018, April 9). *The China-ASEAN Provincial Mayor/Governor dialogue proposed establishment of 'Maritime Silk Road' cruise tourism cities alliance.* China News. Retrieved from http://www.chinanews.com/cj/2018/04-09/8486845.shtml

Wray, K., Espiner, S., & Perkins, H.C. (2010). Cultural clash: Interpreting established use and new tourism activities in protected natural areas. *Scandinavian Journal of Hospitality and Tourism, 10*(3), 272-290. DOI:10.1080/ 15022250.2010.496570

Xi, J. (2018). The speech at the gathering celebrating the 30th anniversary of the founding of Hainan Province and the Hainan Special Economic Zone. Retrieved from http://www.xinhuanet. com/police/2018-04/13/c_1122680495.htm.

Xu, K. (2016). China's cruise industry: Progress, challenges and outlook. *Maritime Affairs: Journal of the National Maritime Foundation of India, 12*(1), 38-45. DOI: 10.1080/09733159.2016.1175129

Zhao, H. (2002). Effects and problems of tourism development in Vietnam. *Southeast Asia Studies, 6*, 63-66.

PART III

Producer and intermediate services:

Islands in the global service economy

Google data centre in Dublin, Ireland.

7

Digitization of the Orange Economy

as a driver of sustainable development

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ABSTRACT

Global trends such as the realignment of trade agreements, the digital revolution, and climate change have exposed the vulnerabilities of small island states to external economic shocks. Governments in these jurisdictions have responded with various efforts to diversify their economic base, but have struggled to identify new pathways to sustainable development. The adverse fiscal conditions in many of these territories have now prompted renewed interest in the potential of Indigenous

cultural and creative industries (the Orange Economy) to generate wealth and employment opportunities. While the potential benefits associated with the Orange Economy are now widely recognized, there is still an ongoing debate about how small island states can best take advantage of such opportunities. The objective of this chapter, therefore, is to discuss how the benefits provided by these emergent sectors can be optimized through the strategic application of information and communications technology (ICT). We argue that in order to achieve a competitive advantage in global marketplaces, Orange Economy stakeholders will need to fully unlock the transformative power of digital technologies. As part of this discussion, we outline the opportunities offered by ICT to transform industries participating within the Orange Economy by enhancing their position in global value chains. We also provide several case studies highlighting the challenges that are likely to be faced by firms in small island states pursuing such a strategy, alongside examples of countries that have successfully leveraged ICT to enhance their creative sectors. The chapter concludes with a set of policy recommendations for developing a new model of economic change and sustainable development based on a digitalized Orange Economy.

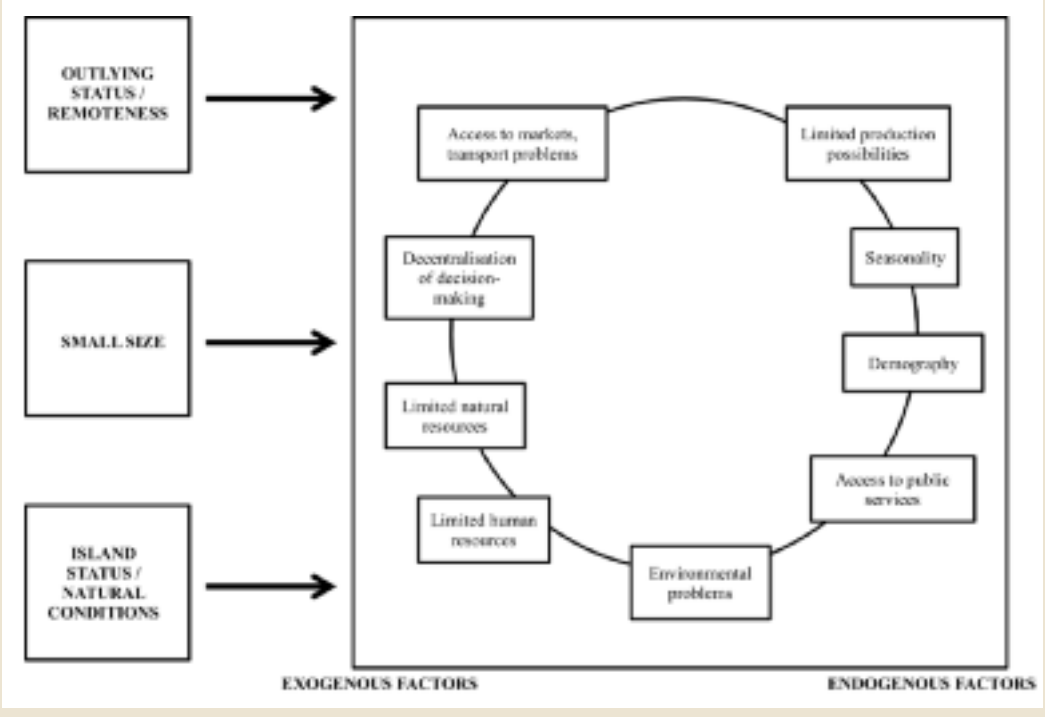
INTRODUCTION

Among the United Nation's classification of least developed countries (LDCs), many are isolated, relatively poor island nations, with small populations (UNDESA, 2010). For many mainland residents, their perception of these small island developing states (SIDS) has been shaped by stereotypical representations of exotic locales with beautiful beaches, unique flora, and images of friendly residents contained in tourist brochures. The reality that exists in these jurisdictions, however, is far more complex and often at odds with the iconic version of paradise that is sometimes portrayed.

SIDS are mainly located in three distinct geographic locations: the Pacific Ocean, Indian Ocean, and Caribbean Sea, and encompass islands with very diverse climatic, social, political, cultural, and physical characteristics and levels of economic development. One of the most notable characteristics of these nation states is their lack of economic diversification and economic vulnerability to exogenous shocks (Herbert, 2019). Economic activity within SIDS is typically concentrated in a few economic sectors—for example, natural resources and tourism—while their small size and domestic capacity means that they are unable to benefit from economies of scale. Due to their remoteness from economic markets, many SIDS operate at the periphery of the global economy and suffer from sluggish economic growth (Briguglio, 2016). A summary of the factors contributing to the economic challenges faced by SIDS is shown in Figure 7.1.

In response to these economic challenges, many national governments have attempted to diversify beyond their traditional economic bases with varying and often limited success. Moreover, the adoption of western conceptions of modernization and

FIGURE 7.1: **Factors Affecting Economic Activity in SIDS**



Source: Planistat Europe and Bradley Dunbar Associates Ltd. (2003).

development has at times been criticized for contributing to the erosion of Indigenous ways of life and cultural heritage which form the fabric of many islands' identity. Arguably, in many instances, the resiliency displayed by small island nations is more a testament to the resourcefulness of the islanders than the result of economic measures enacted by policy-makers.

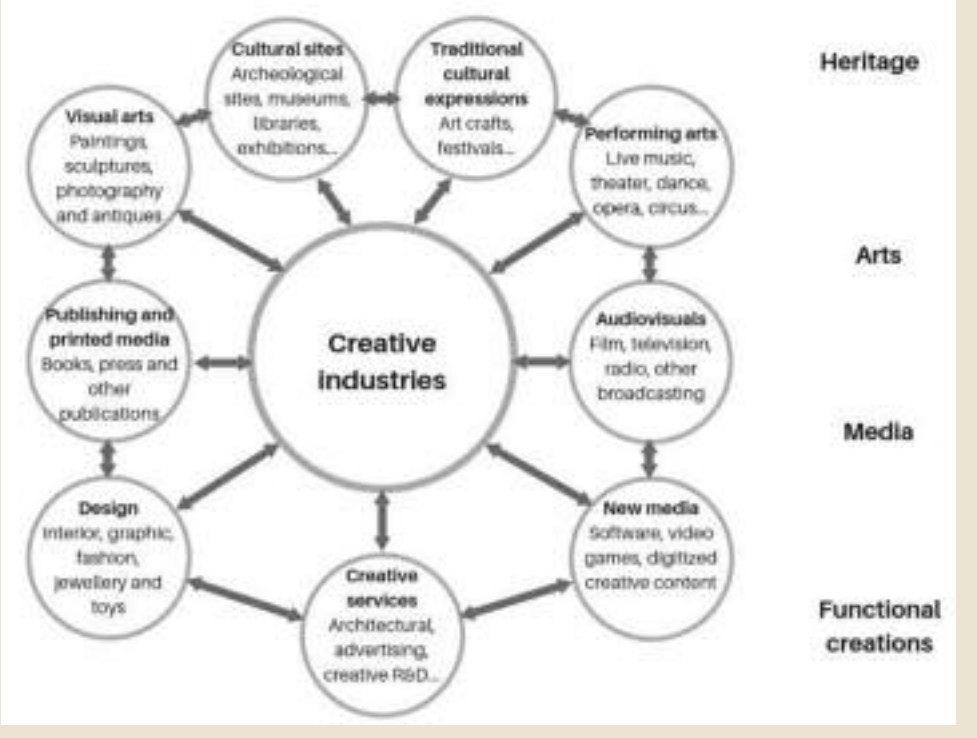
ARGUABLY, IN MANY instances, the resiliency displayed by small island nations is more a testament to the resourcefulness of the islanders than the result of economic measures enacted by policymakers.

Sustainable development in SIDS thus requires systematic effort and innovative strategies designed to overcome capacity constraints. It is in this context that development of the creative sector (Orange Economy) is being proposed as an alternative model for economic diversification and growth by island states. This chapter thus outlines the opportunities offered by the Orange Economy for sustainable development and describes how information technology can be used to unlock the sector's full potential in transforming these societies.

OPPORTUNITY PROVIDED BY THE ORANGE ECONOMY FOR ECONOMIC GROWTH

The Orange Economy, as defined by Howkins (2002), encompasses cultural industries such as fashion, music, and film, as well as professional business services like architecture, animation, and advertising. The common feature across these various sectors is that they are all focused on the production of intellectual property (see Figure 7.2). Until recently, the Orange Economy attracted minimal levels of attention in policy debates on strategies for sustainable development among small island states, but this is no longer the case.

FIGURE 7.2: **UNCTAD Classification of the Creative Industries**



Source: UNCTAD Creative Economy Report (2010).

While statistics on the creative economy are more complex to measure and estimate, this sector holds considerable potential for current and future growth, which represents an opportunity for small developing economies. From 2000 to 2010, for example, it is estimated that the Orange Economy grew annually more than four times that of manufacturing in many OECD and developing countries (UNCTAD, 2010). The creative sector also has proven to be remarkably resilient despite economic pressures stemming from the 2008 financial crisis (see Table 7.1).

TABLE 7.1: **Creative Industries Export Performance for Selected Island Nations, 2005-2014**

Value in Million US$	Creative Goods		Creative Services	
Country	**2005**	**2014**	**2010**	**2014**
Japan	5,861.84	6,763.41	4,305.6 (2011)	9,002.8
Singapore	2,188.51	10,900.36	449.4	686
Indonesia	2,412.57	5,156.81	114.1	263.4
Brunei Darussalam	0	3.34	–	–
Philippines	775.83	915.45	1,971	3,236.5
Sri Lanka	159.97	217.51	265	627.9
Bahrain	25.84	548.38	–	–
Cyprus	30.44	39.08	84.8	138
United Kingdom	17,912.28	24,187.25	–	–
Ireland	2,170.61	1,329.66	983.5 (2012)	144,523.7
Malta	111.57	185.36	1.6	6.6
Cabo Verde	.08	.25	–	–
Madagascar	28.97	89.33	10.5	26.2 (2013)
Mauritius	76.34	89.99	30.7	98.1
New Zealand	367.05	367.02	353.1	845
Fiji	4.59	9.94	2.7	2.9
Cuba	15.76	–	–	–
Dominican Republic	545.82	312.78	–	–
Jamaica	4.52	5.98	38.4	41
Bahamas	0.79	4.45	–	–
Antigua and Barbuda	0.63	1.05	–	–
St. Lucia	2.94	17.58	–	–
Grenada	0.33	–	–	–
Barbados	10.62	19.20	12.6 (2008)	5 (2013)
TOTAL	**32,707.90**	**51,164.18**	**8,623.0**	**159,503.10**

Source: UNCTAD Creative Economy Outlook and Country Profiles (2018).

Pursuing a development strategy based on the Orange Economy seems particularly well suited to SIDS, which possess a historically rich and distinctive cultural heritage—from music, to art, to cuisine—attractive to global consumer audiences in search of authenticity. This naturally occurring asset can be monetized if businesses located in SIDS can be connected to global markets via digital channels. Additionally, although data for world trade in creative services are difficult to obtain, estimates suggest that creative services are likely to become a fast-growing subsector of the creative economy (Kuku, Quintana, Shelver, & Henderson, 2018). The latest statistics reveal that in developing economies, LDCs, and transition economies, for the period 2005-2018, the export of these digitally delivered services grew at a rate of roughly 10% annually, as compared to 6% on average, for all services exports (World Bank, 2017). This reflects the increasing digitalization of economies around the world, even among the less developed countries, to which category many SIDS belong.

THE DIGITAL REVOLUTION has also lowered trade barriers and costs for businesses in small developing countries to produce and export such creative services.

There is thus a wide range of business services which can be expanded or developed to form the foundation of national economic diversification strategies.

Moreover, the rise of the digital economy has spurred a shift from the production of creative goods to online delivery of creative services. The digital revolution has also lowered trade barriers and costs for businesses in small developing countries to produce and export such creative services. In the music industry, for example, the production of physical CDs has transitioned to online streaming on demand: a creative service. There is thus a wide range of business services which can be expanded or developed to form the foundation of national economic diversification strategies.

Digital disruption is therefore a key trend influencing the future of the creative economy, especially in developing economies (Korres, Kourliouros, & Michailidis, 2017). If channeled positively, these disruptions can allow the Orange Economy to serve as a catalyst for change and economic development in SIDS that have historically been at a competitive disadvantage in global trade. The adoption or even adaptation of digital technologies thus holds much promise for developing sustainable economic activities that are appropriate for developing country contexts.

APPLYING ICT TO UNLOCK THE POTENTIAL OF THE ORANGE ECONOMY

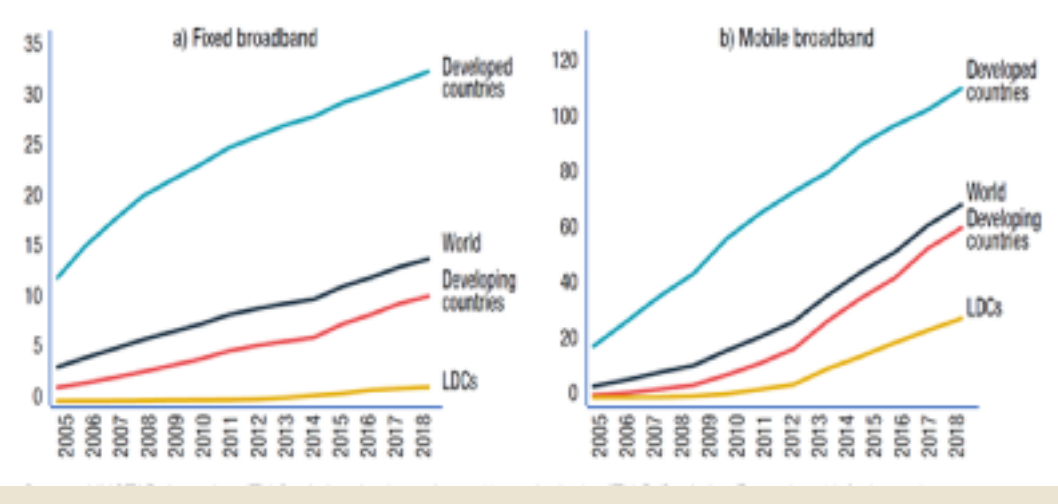
The advent of the digital revolution has significantly transformed the manner in which creative content is produced, distributed, and consumed. The most obvious example of this trend is the music industry, which has been transformed through digital

production, distribution, and consumption. Digital channels including streaming and social media platforms, as well as the digitalization of services, mean that there is potential for a substantial expansion in creative economy exports from SIDS. The development of a digital ecosystem can reduce transaction costs and create opportunities for SMEs in remote island states to enter new global markets and overcome institutional voids that typically exist in small, open, developing economies. This can lead to an increase in export revenue and enhance the competitiveness of island economies.

THE BLURRING OF THE borders between and among information, media, creative content, and digital networks has facilitated the rapid global dissemination of creative content.

The intersection of products, services, and digital technologies is becoming increasingly complex and disruptive. The penetration of mobile broadband in developing countries is particularly noteworthy and holds great potential for empowering communities in remote and rural regions who may lack physical access to global markets (see Figure 7.3). Traditionally, the export of physical creative products from island states required securing international distributors and significant investment capital to finance high legal, marketing, and distribution costs. The blurring of the borders between and among information, media, creative content, and digital networks has facilitated the rapid global dissemination of creative content. It is thus now possible for digital creative exports to reach international markets from inception, creating new opportunities for smaller economies and enabling rapid growth.

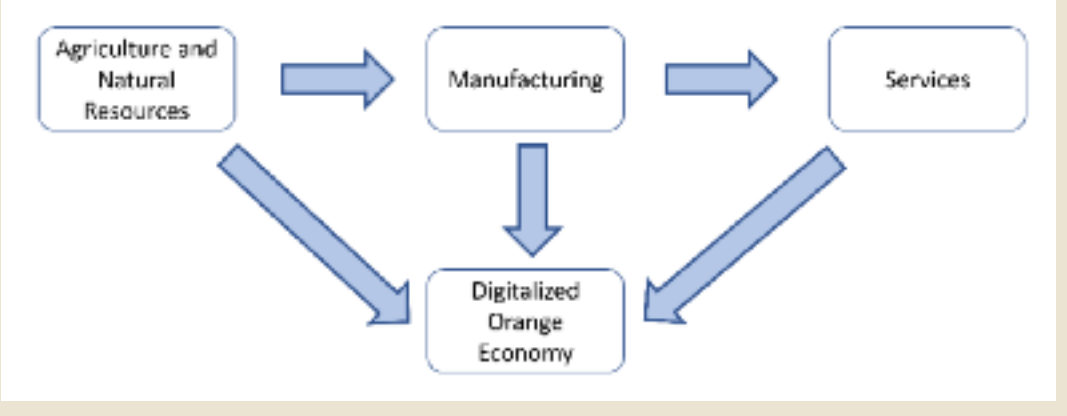
FIGURE 7.3: **Global Broadband Penetration (per 100 people), 2005-2018**



Source: UNCTAD, based on ICT Statistics database (https://www.itu.int./en/ITU-D/Statistics/Pages/stat/default/aspx).

The symbiosis between the creative and digital worlds should come as no surprise. The internet has not only become an increasingly important access portal for content but is also able to transform creative output into profit (Hartley, Wen, & Li, 2015). As digital connectivity increases and draws global populations closer together, the demand for creative goods and services is likely to increase. Small developing economies with the ability to efficiently produce and distribute creative content using these technologies possess the potential to upgrade their position in global value chains and diversify their economy away from non-renewable, low-value sources of revenue. Figure 7.4 illustrates the long-term change in dominant economic activity as a driver of overall economic growth that is projected.

FIGURE 7.4: **Value Transformation through Digitilization of the Orange Economy**



Source: UNCTAD, based on ICT Statistics database (https://www.itu.int./en/ITU-D/Statistics/Pages/stat/default/aspx).

While there is significant scope to jumpstart the creative economy by leveraging digital disruption and new technologies, it is critical that SIDS move quickly to develop creative ecosystems that can maximize the benefits provided by technological innovation. Case studies of five island states that have begun to successfully leverage the opportunities offered by ICT to develop their creative sectors are outlined in the next section.

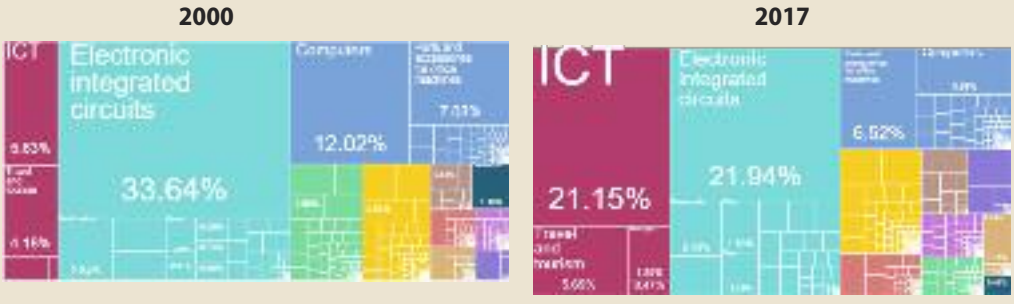
ICT TRANSFORMATION OF THE ORANGE ECONOMY: EXAMPLES

Philippines

The Philippines archipelago was able to transform its economy from an industrialized base in the 1970s to a service-oriented knowledge-based economy by making a bold shift toward the provision of ICT-enabled services (ICTES). Today, the country is considered one of the leading providers of ICT-enabled services. According to the KPMG IT Report (Dayoan & Benvenuto, 2018), the Philippines focuses on five key IT-enabled services: animation and game development, contact centres and business process outsourcing (BPO), ICT services, healthcare information management, and global in-house centres. Continuous investment in these sectors has paid rich dividends as revenue in the ICTES sector grew at a rate of 26% per annum from US$1.5 billion in 2004 to US$22.9 billion in 2016. Similarly, the sector's contribution to gross domestic product (GDP) rose from 2.7% in 2004 to 6.2% in 2016. Direct employment also increased at a rate of 25% per annum from 0.1 million in 2004 to 1.146 million in 2016. Combined with BPO services, contact centres that provide customer care and account management contribute the most toward revenues in the ICTES sector in the country, accounting for 56% (US$12.8 billion) of revenues and 66% (751,200) of full-time employment in 2016. However, healthcare information management services, which includes medical transcription, electronic medical records (EMR), and telehealth, was the fastest-growing subsector with an impressive 71% annual growth rate in revenues and 18% per annum in employment.

Alongside the development of the IT-enabled services sector, the Philippine government has also undertaken a number of policies to ensure the preservation of its culture and heritage. Mechanisms have been put in place to promote the production of creative works and fund the development of artistic products (Agbisit, 2014). Moreover, the country's national development plan explicitly calls for the establishment of educational policies and programs to strengthen creativity and art education from the primary to secondary levels. Increased access to technology has also provided a cost-effective means for creative entrepreneurs to build networks and promote their work via referrals and social media.

FIGURE 7.5: **Relative Importance of ICT Exports in Philippines, 2000 and 2017**



Source: The Growth Lab at Harvard University. The Atlas of Economic Complexity. (http://www.atlas.cid.harvard.edu).

Ireland

The tale of economic development in Ireland is inextricably intertwined with the attraction of inbound foreign direct investment (FDI) from global ICT firms like IBM, Intel, and Microsoft, who were encouraged to move significant value-chain activities to the country. Later on, search giant Google established its European headquarters in Dublin in 2003. In order to attract FDI successfully, the government made significant strides in improving the ease of doing business by introducing macroeconomic reforms such as favourable tax incentives for high-tech foreign firms. However, initially there were issues with the shortage of skilled labour, which was overcome by improving education programs, combined with the return of Irish ex-pats working in the US.

FIGURE 7.6: **Relative Importance of ICT Exports in Ireland, 2000 and 2017**

Source: The Growth Lab at Harvard University. The Atlas of Economic Complexity. (http://www.atlas.cid.harvard.edu).

Today, Ireland boasts of being the heart of ICT in Europe, based on its ability to attract the strategic business activities of leading global ICT companies. The industry employs over 37,000 people and accounts for 37% of total exports valued at approximately €35 billion annually (IDA Ireland, 2019). The sector is home to the top five global software companies, nine of the top ten US technology companies, the top three global enterprise software companies, and four of the top five IT services companies.

A report published by the National University of Ireland, Galway (Collins, Murtagh, Breen, & Cummins, 2018), revealed that the creative sector has spawned a range of wider socioeconomic benefits and spillover effects. The most obvious is its positive impact on the perceptions of peripheral regions within Ireland as attractive places to live, work, and visit. This has rejuvenated peripheral communities that are largely rural and suffer from urban migration such as the counties in the Western Region of Ireland. Collaboration between and among creative-sector entrepreneurs has strengthened the local human resource capacity and fostered more close-knit communities that place value on Irish traditions and heritage.

Mauritius

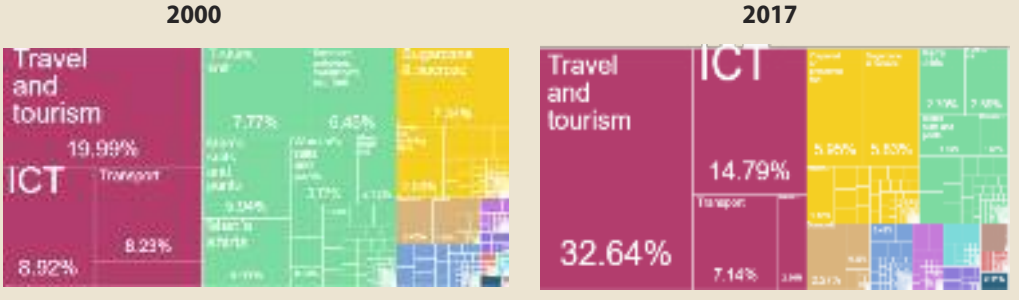
Mauritius has successfully leveraged ICT to generate robust economic growth since independence. Between 1968 and 2017, real GDP grew 4.7% on average, experiencing significant productivity gains along the way as the country moved from an agro-based-factor-driven economy to a manufacturing and services hub, particularly IT-Enabled Services (ITES) and Business Process Outsourcing (BPO) services. Therefore, not surprisingly, the country is ranked first on the African Transformation Index (ATI). Some enabling factors that allowed Mauritius to achieve such transformative growth include the relative ease of doing business, advanced infrastructure, and a favourable regulatory environment governing the ICT sector.

Mauritius International Art Fair (MIAF), held in August 2019 at the Caudan Arts Centre in Port Louis, attracted 120 artists from 45 countries and was successful in positioning Mauritius as a cultural centre on the global map.

The ICT-enabled creative sector encompasses companies engaged in diverse activities including software development, call centre operations, business process outsourcing (BPO), IT-enabled services (ITES), web-enabled services, consultancy, and multimedia (National Computer Board, 2019). IT-Enabled Services and Business Process Outsourcing comprise the fastest growing and most dominant component of the Orange Economy, accounting for a little over 50% of the firms, contributing around 7% of GDP, employing approximately 18,000 people, and primarily servicing the US and European markets.

The evolution of the IT-Enabled Services sector into what it is today is a result of a series of carefully calculated decisions dating back to the early 2000s when the

FIGURE 7.7: **Relative Importance of ICT Exports in Mauritius, 2000 and 2017**



Source: The Growth Lab at Harvard University. The Atlas of Economic Complexity. (http://www.atlas.cid.harvard.edu).

government implemented significant legislative, regulatory, human capital, and infrastructure development initiatives. Priority measures included developing strong fibre-optic connectivity, liberalizing the telecommunications sector, establishing technology parks, and embedding ICT training throughout the education system. Additionally, regulatory and legislative reforms were introduced to achieve compliance with international standards for cybercrime, data security and usage, electronic transactions, and other critical areas of ICT. However, it should be noted that the development of the sector was not without challenges; chief among them was the lack of skilled labour and limited connectivity to the intercontinental submarine fibre-optic cables.

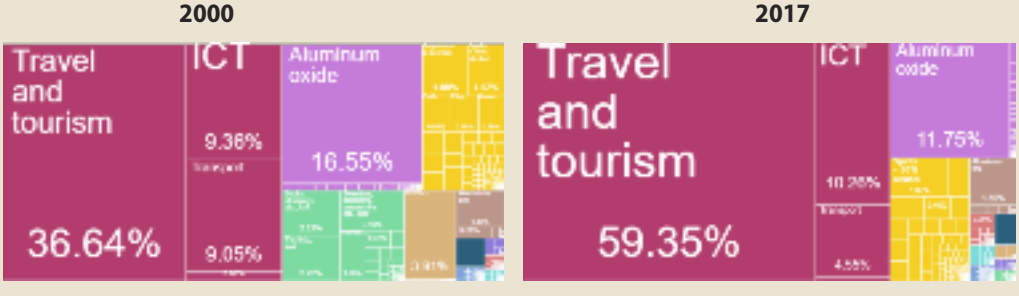
PRIORITY MEASURES included developing strong fibre-optic connectivity, liberalizing the telecommunications sector, establishing technology parks, and embedding ICT training throughout the education system.

Generally, investment in the Orange Economy provides a balance between the country's rich and diverse cultural heritage and the contemporary digitally enhanced creative sectors that are the hallmark of a modern society. Stakeholders in the creative sector have been able to rely on digital ecosystems to overcome the barriers of insularity and gain exposure for cultural output in global markets. The Mauritius International Art Fair (MIAF) held in August 2019, for instance, attracted 120 artists from 45 countries and was successful in positioning Mauritius as a cultural centre on the global map.

Jamaica

In the Caribbean, Jamaica has been a guiding beacon for its regional neighbours in the synergistic utilization of ICT and the Creative Sectors for growth. Traditionally, the country is renowned for its rich culture as demonstrated in the areas of music, dance, art, theatre, film, and, to a lesser extent, animation. The creative sector is a significant contributor to GDP and job creation. Between 2011 and 2016, the trade promotion company JAMPRO reported that over 12,000 jobs were created in the sector (JAMPRO, 2019). The animation subsector provides the nexus between the creative and ICT services sectors, particularly in the areas of video gaming, graphic design, software, web/mobile design, and application development.

FIGURE 7.8: **Relative Importance of ICT Exports in Jamaica, 2000 and 2017**



Source: The Growth Lab at Harvard University. The Atlas of Economic Complexity. (http://www.atlas.cid.harvard.edu).

Not surprisingly, the ITES/BPO sector has emerged as a formidable engine for growth in the country. The sector is comprised of approximately 60 companies including Conduent (formerly Xerox), Teleperformance, Vistaprint, Hinduja Global Solutions, and Sutherland Global Services (SGS), producing estimated revenue in the region of US$590 million and accounting for approximately 35,000 jobs in the country. The companies on the island provide support for a range of industries including banking, insurance, healthcare, and gaming, among others. The main areas of support exist in animation, voice-driven services, business process outsourcing, knowledge process outsourcing, legal process outsourcing, and software development.

The attractiveness of the destination is driven by its close proximity to the US, cost efficiency, skilled human resources, and robust ICT infrastructure. Similar to other countries that have successfully developed this sector, the Jamaican government implemented several initiatives to attract foreign firms to invest in the sector, such as the introduction of Cyber Legislation and the introduction of BPO-specific training to upskill the labour force.

Technology has revolutionized the Jamaican creative sector, particularly in the area of music production, which has created new income streams and international exposure for local artists which were previously unavailable. The digitization of music has allowed many artists to become producers by relying on home studios and led to the production of an extensive Jamaican music catalogue. The synergy between the film and music industries, along with festivals, has positioned Jamaica as a mecca of Caribbean creativity and created opportunities for multiple stakeholders across the industry value chains. The engagement of artists at the community level has allowed new talents to emerge and promoted the skills upgrade of music and film producers.

TECHNOLOGY HAS REVOLUTIONIZED the Jamaican creative sector, particularly in the area of music production, which has created new income streams and international exposure for local artists which were previously unavailable.

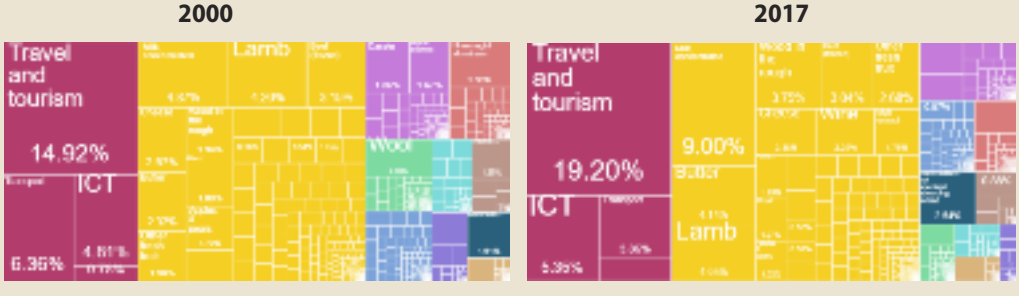
Below: The secluded beach town of Port Antonio, Jamaica, has one of the most vibrant music scenes in the world, including a hotel where Drake, Harry Styles, and Florence and the Machine craft their hits.

New Zealand

New Zealand's television companies have built a reputation in the American televsion networks for creative, innovative work.

New Zealand has derived significant benefits from the multiplicative effects of the infusion of ICT into its creative sector (games, music, books, film, and television). The creative industries add approximately NZ$4 billion to GDP annually, approximately 80% of which is attributed to film, television, and games (Ministry for Culture and Heritage, 2019). Companies in the television sector have built a reputation producing content for popular American television networks. Similarly, game studios export 99% of their products to the US and Europe, with games being primarily sold digitally on iPhones, websites, and Android smart phones. Some of the games have even been ranked No. 1 on the US iPhone free games charts, which only serves to reinforce the country's position as a creative, innovative nation.

FIGURE 7.9: **Relative Importance of ICT Exports in New Zealand, 2000 and 2017**



Source: The Growth Lab at Harvard University. The Atlas of Economic Complexity. (http://www.atlas.cid.harvard.edu).

New Zealand's success in providing high value-added creative IT-enabled services stems from government policies that were geared toward attracting foreign direct investment in its digital and creative services sector. There was a strong emphasis placed on shared value and knowledge/technology transfer between international investors and local New Zealand companies. Additionally, the location is seen as attractive because of the high level of consumer sophistication, which makes it ideal for testing the uptake of new products.

OVERVIEW OF THE CONTRIBUTION OF THE ORANGE ECONOMY

The economies of the countries described in these case studies have shown noticeable improvement over the last decade as reflected in increases in national GDP (see Table 7.2). There have also been spillover effects that extend beyond the economic benefits as seen in the country rankings on the United Nations Human Development Index. The demand for skilled labour in IT-enabled service industries, for instance, has fueled investments in ICT training and spurred greater access to secondary and tertiary education. Moreover, investments in preserving and monetizing the cultural heritage that is unique to island states, aided by technological networks, have fostered new forms of artistic and creative expression on a global scale.

INVESTMENTS IN PRESERVING and monetizing the cultural heritage that is unique to island states, aided by technological networks, have fostered new forms of artistic and creative expression on a global scale.

While it is challenging to obtain data on the specific contribution of the creative industries to national development, the available evidence suggests that the sector has played a significant role. In the Philippines, for example, the creative sector is flourishing and has been recognized by the government as one of the seven industries expected to boost growth and investment in the country (Samodio, 2017). As a result of the sector's performance, the Philippine government has explicitly committed to making the creative economy a national priority and the Creative Economy Roadmap that was developed in 2019 highlighted the contribution of the sector to GDP, employment, and entrepreneurial development.

Within the Caribbean region, it is estimated that the Jamaican cultural and creative sector has become an engine of growth, to the extent that it now contributes 5% to the country's GDP and provides employment to thousands of workers (Campbell, 2017). The increase in demand for Jamaican music, for example, is reflected in the huge popularity of Reggae festivals in European countries which has boosted international opportunities for Jamaican entertainers and strengthened a sense of Jamaican identity among the diaspora. It is clear that the cultural sector, and music in particular, has contributed significantly to positioning Jamaica on the global stage and developing strong equity in 'Brand Jamaica'.

As the examples provided in these country cases illustrate, creativity and innovation have an increasing influence on resilient economic growth. At the same time, however, although cultural and creative industries hold significant value, it is clear that small island states have thus far failed to fully capitalize on the sector's huge untapped potential. This is due to a myriad of factors, stemming from the vulnerabilities facing SIDS, which stymie developmental efforts. In order to unlock the sector's full potential, it is critical that policymakers recognize not only the opportunities available but also the challenges that they are likely to encounter in developing a new model of sustainable economic growth.

TABLE 7.2: National Socioeconomic Development Indicators

	2005	2010	2018
Philippines			
GDP per capita (current US$)	1,195.00	2,130.00	2,951.00
Education: Secondary gross enrol. ratio (f/m per 100 pop.)	87.6 / 78.3	87.5 / 80.9	92.1 / 84.8
Education: Tertiary gross enrol. ratio (f/m per 100 pop.)	30.4 / 24.7	33.0 / 26.4	40.3 / 30.5
Individuals using the Internet (per 100 inhabitants)	5.4	25	55.5
Human Development Index score/rank	0.656/175	0.672/182	0.712/106
Ireland			
GDP per capita (current US$)	50,237.00	47,969.00	64,497.00
Education: Secondary gross enrol. ratio (f/m per 100 pop.)	114.5 / 104.5	126.1 / 120.6	127.7 / 124.7
Education: Tertiary gross enrol. ratio (f/m per 100 pop.)	60.6 / 47.9	66.5 / 59.5	86.3 / 80.8
Individuals using the Internet (per 100 inhabitants)	41.6	69.8	82.2
Human Development Index score/rank	0.893/35	0.89/38	0.942/3
Mauritius			
GDP per capita (current US$)	5,544.00	8,016.00	9,679.00
Education: Secondary gross enrol. ratio (f/m per 100 pop.)	87.6 / 89.7	91.3 / 87.2	96.0 / 90.8
Education: Tertiary gross enrol. ratio (f/m per 100 pop.)	21.7 / 21.0	36.9 / 30.5	43.8 / 34.0
Individuals using the Internet (per 100 inhabitants)	15.2	28.3	53.2
Human Development Index score/rank	0.713/147	0.748/141	0.796/66
Jamaica			
GDP per capita (current US$)	4,097.00	4,692.00	4,879.00
Education: Secondary gross enrol. ratio (f/m per 100 pop.)	92.4 / 87.1	95.5 / 88.2	86.3 / 82.0
Education: Tertiary gross enrol. ratio (f/m per 100 pop.)	25.5 / 11.7	37.8 / 16.4	34.2 / 19.8
Individuals using the Internet (per 100 inhabitants)	12.8	27.7	45
Human Development Index score/rank	0.698/157	0.723/166	0.726/96

Source: United Nations Human Development Report 2019 (http://hdr.undp.org/en/2019-report).

CHALLENGES IN ICT TRANSFORMATION OF THE ORANGE ECONOMY

Though the concept of creating synergies between ICT and the Orange Economy presents a huge opportunity for sustainable development of SIDS, it is obvious that many islands lack the technical, institutional, technological, and financial capacities to benefit to the fullest from their creative industries. The evidence derived from those countries that have adopted such a strategy reveals a number of key implementation challenges that need to be addressed in order to achieve economic diversification and sustain economic development. Several of these are outlined below.

Shortage of human capital

ICT cannot effectively be used to transform the Orange Economy into a growth sector and drive national competitiveness without skilled practitioners. As seen in the case of Mauritius, this issue is one of the main hurdles that small island states face when trying to develop IT-enabled services, and the growth of the creative sector in many countries has been stymied by this limiting factor. IT-enabled services such as call centres, for example, are labour-intensive and require a rich pool of human resources to operate effectively. While these types of jobs tend to require less-skilled workers, higher-value services, such as animation, require more specialized skills which may not be readily available. The transition away from a manufacturing and agrarian economic base to professional services and IT-related jobs puts additional pressure on the labour market to supply a well-educated and technically competent workforce. This situation is exacerbated by the flight of human capital from SIDS to more developed countries in search of employment opportunities (Jaitman et al., 2017). The inability to provide an adequate workforce to perform the new jobs created in this sector threatens to undermine development of the creative sector.

ICT CANNOT EFFECTIVELY BE used to transform the Orange Economy into a growth sector and drive national competitiveness without skilled practitioners.

Income inequality and low-value job creation

One of the criticisms of digital transformation of the creative sector is that the jobs created are low-value, unstable, and low-paying (Berg et al., 2018). While there may be some validity to this critique, particularly in the early phases of the transition towards the Orange Economy, it is also true that exposure to new digital technologies provides an avenue for access to continual learning and skills upgrades. This economic disruption provides an opportunity for workers to acquire more relevant skills over time, but is also likely to exacerbate income inequality between the social classes if appropriate social policies are not implemented.

Absence of robust legislation

Creative economy exporters are increasingly challenged by barriers in relation to online piracy and encounter difficulties regarding the protection of their intellectual property rights. This is particularly problematic for firms located in SIDS that are often very small and lack sufficient financial resources to successfully pursue enforcement of IP protections. As Geismar (2013) persuasively argues, claiming ownership of indigenous cultural heritage and intellectual property is critical for establishing economic sovereignty in small island states. Similar to the Jamaican experience, many small island states may still be in the formative stages of developing legal frameworks for the creative sectors to govern issues such as data protection and responsible usage. Other barriers encountered by creative economy exporters in global markets include the imposition of high fees for low-value transactions, local content requirements, and burdensome regulatory requirements, particularly regarding foreign ownership and licensing (Quartesan et al., 2007).

MANY SMALL ISLAND STATES may still be in the formative stages of developing legal frameworks for the creative sectors to govern issues such as data protection and responsible usage. Other barriers include the imposition of high fees for low-value transactions, local content requirements,and burdensome regulatory requirements.

Weak ICT infrastructure

The IT-enabled creative sector has a high demand for quality physical infrastructure, particularly ICT connectivity which may not readily exist in small islands. This digital infrastructure is needed for the creation, distribution, and consumption of creative goods and services (Dabeedooal et al., 2019). However, infrastructure development is an expensive undertaking for small island states, which are traditionally afflicted by limited financial resources. This problem is particularly acute for SIDS located in the Pacific region, where territories are geographically scattered and isolated (Wardhani, Dugis, & Saad, 2018). Despite advantages resulting from the penetration of mobile broadband, the lack of robust digital networks constrains the ability of SIDS to develop and market their cultural goods and services in the digital environment.

Laissez-faire work culture

The success of global firms operating in the IT-enabled sector is based on a high level of productivity and an industrious work ethic. Therefore, these firms tend to be attracted to destinations where these are already well-established pillars of the national culture (e.g., Philippines). Small island states that possess a culture with a more laissez-faire attitude toward work and where the workforce is not quality- or

process-oriented will find it more difficult to attract firms to operate in the sector. This situation is compounded by the fact that stakeholders in the creative industries may be distrustful of state policies promoting sector disruption and may not fully appreciate the transformational power of ICT adoption, thus making it more difficult to implement (Alam & Noor, 2009).

Some of the policy levers that are needed to create a synergistic nexus between the creative and digital domains are outlined in the following section.

POLICY RECOMMENDATIONS FOR DIGITAL TRANSFORMATION OF THE ORANGE ECONOMY

While inadequate ICT infrastructure, labour shortages, and fiscal deficiencies remain key stumbling blocks for transforming and monetizing the creative sector, barriers to implementation are less about technical capacity and more about the mobilization of governments in SIDS to institute structural change. The diversity of SIDS and their specific socioeconomic contexts, however, guarantees that there is no 'one size fits all' solution that is globally applicable. Policymakers therefore need to ensure that decisions regarding the pace and scope of transformation are aligned to the local resources that are available, as well as to the dominant cultural norms that influence economic activity in the jurisdiction.

THE ABSENCE OF ROBUST policies that can guide economic diversification efforts for SIDS poses a challenge, but this can also be viewed as an opportunity since island states provide an aseptic environment where strategies geared toward leveraging the potential of the Orange Economy can be applied and tested.

Government policy in many island economies has struggled to keep pace with the rapidly evolving digital environment. The absence of robust policies that can guide economic diversification efforts for SIDS poses a challenge, but this can also be viewed as an opportunity since island states provide an aseptic environment where strategies geared toward leveraging the potential of the Orange Economy can be applied and tested. As a result, countries seeking to enhance the global competitiveness and sustainability of their creative industries need to formulate a comprehensive policy framework to govern future growth of the sector.

The development of the creative sector starts with the articulation of a strong vision about the desirability and motivation for investing in the Orange Economy. Data collection and measurement of the creative sector's economic impact on GDP and employment is a prerequisite for citizens to appreciate the potential of the Orange Economy to radically transform the economic structure of the country. The provision of a clear roadmap for developing this sector not only builds the population's trust in the strategy but also promotes the value attached to creative enterprises.

Changing the public's perception of the creative and cultural industries as only offering low-paying, labour-intensive jobs is perhaps the first hurdle that needs to be overcome. The legitimacy and profile of the creative industries can be raised by publicly rewarding creative talent and championing positive role models. It is important for policymakers to recognize that ad hoc interventions in the absence of the necessary ecosystem to support companies in the creative sector will yield little economic value to the country.

Firms in the IT-enabled creative sector require stable high-speed connectivity to the globe, and reliable power supplies, in order to produce and distribute creative content. To facilitate this, SIDS can promote the use of specific economic zones or cyber parks equipped with the resources dedicated to firms operating in the sector. A focus on rapidly expanding mobile digital platforms that are more easily accessed by rural and marginalized communities will assist businesses in these areas to penetrate both domestic and international markets. Several islands in the Pacific (Tonga, Samoa, Fiji, Federal States of Micronesia, Palau, and Kiribati) which have recognized the benefits of connectivity are already making significant investments in building a telecommunications backbone infrastructure through the deployment of fibre-optic submarine cables. Significant upgrades to the ICT infrastructure at a regional level thus afford a more cost-effective way to capitalize on the benefits available from employing digital technologies in the creative sector.

WITH DATA BEING THE MAIN traded commodity in the Orange Economy, a robust system for the protection of intellectual property needs to be developed and implemented to ensure that stakeholders benefit from the sale of their creative output.

With data being the main traded commodity in the Orange Economy, a robust system for the protection of intellectual property (IP) needs to be developed and implemented to ensure that stakeholders benefit from the sale of their creative output. As Vega-Muñoz, Bustamante-Pavez, and Salazar-Sepúlveda (2019) note, such protection is a critical determinant of success for the sector. Cyber legislation reassures businesses and their clients that the sensitive information flows between them would not be compromised and used for ill-gotten gains. Additionally, there should be clear intellectual property rights legislation and enforcement to avoid—and, if necessary, resolve—any disputes in this area. Efforts in this area will require SIDS to engage fully with international institutions that are at the forefront of the fight against online piracy and copyright violation. The introduction and enforcement of IP and privacy laws should be high on the legislative agenda of SIDS if the creative sector is expected to attract content developers and investors.

A critical mass of content creators is needed in order to ensure the long-term sustainability of the sector. The more advanced value-added services require a skilled labour force with technical knowledge to competently deliver value. This calls for the

incorporation of digital competencies in formal education and training systems, as well as effective ICT training and certification outside formal education systems, including the use of online tools for re-skilling and continuing professional development. The growing prevalence of online classes and blended learning targeted at working adults means that employees may no longer have to physically attend classes, with the attendant loss of productive time, or travel to foreign institutions in order to acquire the skills needed to participate in the digitally networked Orange Economy.

Emphasis should also be placed on ensuring that the education system is focused on equipping the labour force with the most highly demanded skill areas for this new economy. School curricula may need to be radically reformed to bring closer alignment between education institutions and businesses to ensure that individuals are provided with relevant STEM and creative skills. Small island states possessing a workforce with these capabilities will have a distinct advantage over their competitors. At the same time, a carefully targeted system of public transfers will need to be implemented to offset the rise in income inequality that may arise between members of the workforce who have the relevant skills to operate in this new environment and those who lack such skills and need to be retrained.

ICT CAN ALSO BE USED TO combat the brain drain SIDS face by linking skilled personnel within the creative sector with counterparts residing within the international diaspora so that their skills can be leveraged as part of a knowledge network.

ICT can also be used to combat the brain drain SIDS face by linking skilled personnel within the creative sector with counterparts residing within the international diaspora so that their skills can be leveraged as part of a knowledge network (Nurse, 2016). Members of the diaspora can also be provided with incentives to return from abroad, as was done in the case of Ireland, or encouraged to contribute to a digitally connected skills bank. By removing geographic boundaries, ICT facilitates access to a wider pool of human resources than would otherwise be available locally for sustainable economic development.

In order to combat limitations produced by their small size in training a suitable workforce, SIDS can form partnerships with technology firms to expedite the required knowledge transfer needed to operate in the Orange Economy, while simultaneously lowering the upfront cost of education. For example, Jamaica has established a Microsoft Innovation Centre in collaboration with the main local university to stimulate the local software industry. The intent behind such initiatives is to accelerate knowledge transfer and augment the underlying talent of the local creative community. Such partnerships need to be carefully negotiated to ensure not only local access to the latest technology, but also the retention of locally produced intellectual property.

As previously noted, SIDS rarely possess significant financial resources, so the development of an innovative IT-enabled creative sector may be heavily reliant on

foreign direct investment, at least initially. Financial support is particularly important for small businesses operating within the creative sector which typically have little investment capital. Mechanisms to incentivize private investments in such businesses, such as targeted tax relief, can be used to assist with the purchase of digital inputs to the creative process (e.g., telecom equipment), as well as subsidize the cost of transitioning to digital business models. New financial models built around public-private collaboration which target specific activities in the creative sector can assist creative enterprises in reducing their reliance on scarce public funds and transitioning towards commercial viability. Overtures also need to be made to multilateral lending agencies, such as the World Bank, to access cost-effective forms of financing that can assist in the economic diversification efforts of island states. In the absence of access to traditional banking instruments, SIDS could consider using blockchain technology to finance the growth of their local creative economies, bypassing some of the established sources of investment capital.

Policy interventions can also be targeted towards specific creative industries (e.g., music and animation) within the broader creative sector that are scalable and amenable to digitization in order to create distinctive creative clusters that can be the impetus for innovation and diversification. The development of creative clusters will also facilitate knowledge transfer within the creative industries and provide access to a deeper pool of resources. These clusters are important foundations for building a digitally enhanced creative industry ecosystem. SIDS also need to collaborate with more economically developed regional partners to enable access to new technology and spur research and development for emerging sectors of the Orange Economy. Global and regional partnerships are thus an important mechanism for enhancing the productive capacity of cash-strapped island economies.

CONCLUSION

One of the toughest challenges facing SIDS is to ensure rapid adoption and implementation of measures necessary to meet the development goals of small island nations. Historically, the Orange Economy has not been seen as a priority area by policymakers for national development compared to traditional economic activities, and whatever resources are available have typically been directed towards tangible heritage projects rather than creative services. In contrast to this developmental trajectory, we contend that small island states can leverage the transformative power of ICT to seize the opportunities provided by the Orange Economy for building a resilient economic future. The policies outlined in this chapter are thus aimed at developing a dynamic nexus between and among the digital, creative, and cultural sectors to ensure that ICT innovations are rapidly transformed into meaningful jobs and sustainable economic growth.

Transforming the cultural and creative sectors can help achieve inclusive economic

development since it employs people from all social classes. The sector's structure, primarily composed of locally engaged SMEs, also facilitates greater absorption into the formal economy of marginalized youth and women who play an important role in creative activities. The reliance on digital networks, knowledge, and creativity rather than heavy industrial infrastructure means that the Orange Economy is also a more environmentally sustainable model that is compatible with national objectives that aim at environmental preservation. It further facilitates sustainable development in peripheral and rural regions which possess limited financial resources and are negatively affected by the outward migration of human capital (Hartley, 2015). This is an important part of the Orange Economy's value compared with other sectors that is often overlooked.

The Orange Economy, however, offers no 'magic bullet' for achieving sustainable development, nor should it be viewed as a universal panacea for alleviating the effects of economic crises. While leveraging the untapped potential of the creative economy, we must also recognize its limits and the danger that such interventions may amplify economic inequality within countries. This is because infusing digital technologies throughout the creative sector increases the demand for skilled, better-educated workers which can marginalize poorer, less-educated workers (Mellander & Florida, 2014). A holistic approach is thus required, by which governments provide a social safety net to mitigate social inequality and minimize the fallout of economic transformation.

The application of disruptive digital technologies to unleash the potential of the Orange Economy also needs to be considered on a case-by-case basis, since some SIDS have more commercialized cultural industries and stronger institutional resources. Policymakers therefore need to resist the temptation to blindly mimic strategies that have been successful in other countries without full acknowledgement of local challenges.

The promotion of sustainable development in remote island states with high social and economic vulnerability therefore requires resilience, the development of mutual trust, and empowerment of stakeholders who share a long-term vision of the creative sector's potential. Ultimately, however, policymakers need to recognize that while external assistance may be necessary to build capacity within the creative and cultural sectors, the transformative potential of the Orange Economy lies in the hands and minds of the stakeholders responsible for generating value-added intellectual property. Particular care must be taken to ensure that these local voices are not overlooked or silenced as the policies to foster economic growth are being formulated. Deliberate action is therefore needed to ensure that the initial top-down policy initiatives are balanced with bottom-up participation by members of the creative community. In terms of sustainable development, however, the available evidence suggests that synergies between and among the creative, digital, and other indigenous industry sectors can support a move towards a more diversified economy and provide avenues for future sustainable growth.

REFERENCES

Agbisit, J.J. (2014). *Youth as movers of creative industries in southeast Asia.* Quezon City.

Alam, S.S., & Noor, M.K.M. (2009). ICT adoption in small and medium enterprises: An empirical evidence of service sectors in Malaysia. *International Journal of Business and Management, 4*(2), 112-125.

Berg, J., Furrer, M., Harmon, E., Rani, U., & Silberman, M.S. (2018). *Digital labour platforms and the future of work: Towards decent work in the online world*. Geneva: International Labour Organisation.

Briguglio, L.P. (2016). Exposure to external shocks and economic resilience of countries: Evidence from global indicators. *Journal of Economic Studies, 43*(6), 1057-1078.

Campbell, W. (2017, August 1). Cultural and creative industries finally getting attention. *Jamaica Observer*. Retrieved from http://www.jamaicaobserver.com/opinion/cultural-and-creative-industries-finally-getting-attention_106403?profile=1096

Collins, P., Murtagh, A., Breen, B., & Commins, V. (2018). *Economic and social impact assessment: West of Ireland creative sector.* Galway: Whitaker Institute, National University of Ireland.

Dabeedooal, Y.J., Dindoyal, V., Allam, Z., & Jones, D.S. (2019). Smart tourism as a pillar for sustainable urban development: An alternate smart city strategy from Mauritius. *Smart Cities, 2*(2), 153-162.

Dayoan, G.S., & Benvenuto, I.N. (2018). Trends and outlook in the Philippine IT-BPM industry. *KPMG IT Report: Philippines*, 32-39.

Geismar, H. (2013). *Treasured possessions: Indigenous interventions into cultural and intellectual property*. Durham, NC: Duke University Press.

Hartley, J. (2015). Urban semiosis: Creative industries and the clash of systems. *International Journal of Cultural Studies, 18*(1), 79-101.

Hartley, J., Wen, W., & Li, H.S. (2015). *Creative economy and culture: Challenges, changes and futures for the creative industries.* New York: Sage.

Harvard Growth Lab. (n.d.). The Atlas of Economic Complexity. Retrieved from http://www.atlas.cid.harvard.edu

Herbert, S. (2019). Development indicators and the small island developing states. *K4D Helpdesk Report.* Brighton, UK: Institute of Development Studies.

Howkins, J. (2002). *The creative economy: How people make money from ideas.* London, UK: Penguin.

IDA Ireland. (2019). Doing business here: Information Communications Technology. Retrieved from https://www.idaireland.com/doing-business-here/industry-sectors/ict

International Telecommunication Union (ITU). (n.d.). Statistics. Retrieved from https://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx

Jaitman, L., Caprirolo, D., Ochoa, R.G., Keefer, P., Leggett, T., Lewis, J.A., Mejía-Guerra, J.A., Mello, M., Sutton, H., & Torre, I. (2017). *The costs of crime and violence: New evidence and insights in Latin America and the Caribbean*. Washington, DC: Inter-American Development Bank.

JAMPRO. (2019). Knowledge services sector profile. Retrieved from https://jamaicatradeandinvest.org/investment /sectors/ict/sector-profile

Korres, G.M., Kourliouros, E., & Michailidis, M.P. (2017). *Handbook of research on policies and practices for sustainable economic growth and regional development.* Hershey, PA: Business Science Reference.

Kuku, P., Quintana C., Shelver A., & Henderson M. (2018). *Creative economy outlook: Trends in international trade in creative industries*. Geneva: UNCTAD.

Mellander, C., & Florida, R. (2014). The rise of skills: Human capital, the creative class, and regional development. In M.M. Fischer & P. Nukamp (Eds.). *Handbook of Regional Science*, (pp. 317-330). London, UK: Springer.

Ministry for Culture and Heritage. (2019). Creative industries add $3.848b to NZ economy. Retrieved from https://mch.govt.nz/creative-industries-add-3848b-nz-economy

National Computer Board. (2019). ICT Industry in Mauritius. Retrieved from http://ictexport.govmu.org/English/For_Buyers/ICT%20Industry%20in%20Mauritius/Pages/default.aspx

Nurse, K. (2016). The diasporic economy, trade and the tourism industry in the Caribbean. In A. Chikanda, J. Crush, & M. Walton-Roberts (Eds.). *Diasporas, development and governance* (pp. 141-152). New York: Springer.

Planistat Europe and Bradley Dunbar Associates Ltd. (2003). *Analysis of the island regions and outermost regions of the European Union: Part I: The island regions and territories* (Contract 2000.CE.16.0.AT.118). Brussels: European Commission.

Quartesan, A., Romis, M., & Lanzafame, F. (2007). *Cultural industries in Latin America and the Caribbean: Challenges and opportunities.* Washington, DC: Inter-American Development Bank.

Samodio, G. (2017). Nurturing Filipino creativity: The status of the Philippine education policies in support of the creative industries. *International Journal of Cultural and Creative Industries, 5*(1), 4-21.

UNCTAD. (2018). Creative economy outlook and country profiles. Retrieved from https://unctad.org/en/PublicationsLibrary/ditcted2018d3_en.pdf

UNCTAD. (2010). Creative economy report 2010—Creative economy: A feasible development option. Retrieved from https://unctad.org/en/Docs/ditctab20103_en.pdf

UNDESA.(2010). *Trends in sustainable development: Small island developing states (SIDS).* New York: Department of Economic and Social Affairs of the United Nations.

United Nations. (2019). *Human development report 2019*. Retrieved from http://hdr.undp.org/en/2019-report

Vega-Muñoz, A., Bustamante-Pavez, G., & Salazar-Sepúlveda, G. (2019). Orange economy and digital entrepreneurship in Latin America: Creative sparkles among raw materials. In J.M. Saiz-Alvarez (Ed.). *Handbook of research on digital marketing innovations in social entrepreneurship and solidarity economics* (pp. 182-203). Hershey, PA: IGI Global.

Wardhani, B., Dugis, V., & Saad, M.S. (2018). On the digital divide: Role of the University of the South Pacific in enhancing education in the Pacific countries. In Z.J. Pudlowski (Ed.). *World transactions on engineering and technology education* (pp. 36-41). Melbourne: World Institute for Engineering and Technology Education.

World Bank. (2017). *Small states: A roadmap for World Bank Group engagement.* Washington, DC: World Bank Group. Retrieved from http://pubdocs.worldbank.org/en/982421496935264348/Small-States-Roadmap.pdf

Malta is at the forefront of blockchain technology.
This is an aerial view of the tourist town of Saint Julian's, at dawn.

8

Blockchain and cryptocurrencies

as an economic development strategy for small island states and territories, with a particular focus on Malta

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ABSTRACT

Amid public scrutiny and scepticism of the blockchain technology and the launch of Bitcoin in 2009, with businesses speculating about the technology's capabilities, companies have come to realize that the new technology has untapped potential, and is likely here to stay. Indeed, in the past few years as the

technology proved itself, and applications other than just digital currency have become possible, governments began taking the technology on board, drafting legislation to accommodate it. Several small island states, in spite—or perhaps because—of their smallness, have not shied away from actively launching cryptocurrency (and other) schemes relating to blockchain; they see them as a potential economy booster, with greenfield opportunities on the horizon. This chapter reviews the steps that some island states and territories have followed in order to raise their global profiles via the use of the blockchain technology. In particular, the case of Malta, a small and strategically located Mediterranean island, is considered.

INTRODUCTION

Contemporary empirical research about the socioeconomic development of small island states and territories reveals an interesting, if not an intriguing and surprising, observation: that these islands, in spite of their inherent vulnerability and the challenges this brings, have frequently fared well economically. And—remarkably—they have turned some of the very same, typically negatively attributed characteristics (such as isolation, smallness, lack of scale economies, limited land area, and finite resources) to their advantage (Baldacchino, 2015; Briguglio, 2018). Indeed, some businesses have thrived and expanded their operations by cleverly exploiting some of these islands' intrinsic attributes. To mention some examples: in Åland, the dependency of sea transport enabled one company—Viking Line—to grow considerably since its creation in 1959. In more than one island state, the focus on place-based branding of specially crafted products to counter the lack of scale economies has produced positive results (for example, the internationalization of the cosmetic and body care firm Ligne St. Barth as a global luxury brand in St. Barthélemy); and in some island jurisdictions, the exploitation of tourism by presenting it as a newer form of attraction (for example,

On the Åland islands, the dependency on sea transport has enabled Viking Line to thrive.

casino tourism in Macao, education tourism such as the teaching of English as a foreign language in Malta, and medical tourism in Barbados) has also met with success (Baldacchino, 2015). At the national level, governments have typically encouraged these types of activities. A paradigm shift from a pessimistic 'model' for the development of small island states to one which is more positive thus appears to have emerged.

Even so, we are often simultaneously reminded that small island states are fragile and more susceptible to economic shocks (for example, in view of their limited resources and high import dependency) than are big countries (Briguglio, 1995; Briguglio et al., 2009; Easterly & Kraay, 2000). Set against the range of disadvantages, for example, the comparative advantages of smallness and isolation are few (Connell, 2013). Moreover, while the 'alternative development strategies' mentioned above have helped islanders gain extra income (for example, by engaging in them at the individual level on a part-time basis), and in many cases even enabled entrepreneurs to start innovative and highly successful schemes, in some island states they may generate little monetary value at the national level when compared to the islands' gross national incomes. On the other hand, an industry (be it manufacturing or service) based on a sound and robust information and communications technology infrastructure can generate greater wealth. The electronic gaming industry is a case in point: in a number of small island states and territories, including those of Alderney, Antigua & Barbuda,

Investing in electronic gaming has proven lucrative for Gibraltar. This is the Ocean Village marina.

Gibraltar, the Isle of Man, and Malta, it has provided substantial revenues (Aloisio, 2015; Connell, 2014). The point to be made here is that investing in a technology-based industry, if and when one can be identified, can prove very lucrative.

For the reasons just stated, political leaders and policymakers, especially those of small island jurisdictions, must be constantly on the lookout for new economic opportunities. When a new technology manifests itself, for example, political leaders should attempt to understand its positive and potentially negative effects, and create environments and mechanisms to embrace and perhaps even profit from it, even if the technology is disruptive and/or untested. This is not always straightforward, as the blockchain technology epitomizes. Not infrequently, there will be resistance to an early adoption, especially from opposing political factions—as happened, for example, in the Republic of the Marshall Islands when the government there set to pass a bill to produce its own cryptocurrency (Orcutt, 2019)—but sometimes also from private firms. So whilst concerns from the various sceptics should not be ignored, governments would do well to forge ahead with the implementation of policies and the passing of legislation, provided these have been tabled and thoroughly debated by all the relevant stakeholders prior to becoming law.

POLITICAL LEADERS AND policymakers, especially those of small island jurisdictions, must be constantly on the lookout for new economic opportunities. When a new technology manifests itself, for example, political leaders should attempt to understand its positive and potentially negative effects, and create environments and mechanisms to embrace and perhaps even profit from it, even if the technology is disruptive and/or untested.

The still relatively new technology of blockchain and cryptocurrency is, arguably, another opportunity for countries to tap into. Although still not fully understood by everyone, it is beginning to gain popularity, and many nation states, including some small island jurisdictions, are currently investigating how best to integrate this new technology with existing systems. Indeed, some small island states and territories have already put together appropriate legislation and, in some instances, even started to develop business applications built on blockchain.

The objective of this paper is to review some of these islands' state of play with regard to blockchain and cryptocurrency take-up, and identify how this technology is potentially being used as an economic development strategy and to what extent it is bearing fruit (although, given the industry's young age, it may still be too early to draw definite conclusions). Apart from the concluding remarks, this chapter is divided into three main sections. The first section gives an overview of blockchain technology, what it promises to achieve, and its advantages and disadvantages. The characteristics of blockchain and cryptocurrency that avoid the vulnerability of small islands (e.g., isolation and high transportation costs) are also discussed. The second section discusses how small island states have

already begun to use the blockchain technology. Their common factors and what distinguishes them is highlighted. The final section gives a fairly detailed examination of how Malta is going about navigating the somewhat uncharted territories of the blockchain technology with a view to boosting the local economy, and what its plans are for the technology's future uptake.

It should be pointed out that since the blockchain and cryptocurrency technology is a relatively new phenomenon, scholarly literature is still in its infancy and therefore some of the data presented in this paper may have been obtained from grey literature sources.

AN OVERVIEW OF THE CONCEPTS OF BLOCKCHAINS AND CRYPTOCURRENCIES

In the autumn of 2008, almost 18 years following the publication of the influential blockchain paper by Haber and Stornetta (1991), a person or group of persons by the pseudonym of Satoshi Nakamoto wrote a seminal account in which the digital currency, Bitcoin, was introduced to the world, initially as a concept (Nakamoto, 2008). Just a few months later, a working system was implemented that launched the first units of the Bitcoin cryptocurrency.

BLOCKCHAIN IS DESCRIBED as "a technology that enables immutability, and integrity of data in which a record of transactions made in a system are maintained across several distributed nodes that are linked in a peer-to-peer network."

The literature about blockchain reveals a bewildering variety of definitions of the term, which is therefore mostly defined informally. According to the Merriam-Webster dictionary, a blockchain is "a digital database containing information that can be simultaneously used and shared within a large, decentralized, publicly accessible network", or "the technology used to create such a database" (Merriam-Webster, 2019). Given that the first real-world application of the blockchain system was to record financial transactions using a digital currency—called Bitcoin—another definition is "an open, distributed ledger that can record transactions between two parties efficiently and in a verifiable and permanent way" (Iansiti & Lakhani, 2017, p. 61). Finally, since many definitions limit the scope within cryptocurrencies, in order to extend the Blockchain definition to address a broader context, Viriyasitavat and Hoonsopon (2019, p. 33) prefer to describe it as "a technology that enables immutability, and integrity of data in which a record of transactions made in a system are maintained across several distributed nodes that are linked in a peer-to-peer network." Other definitions, similar to the ones quoted, may be found in the relevant literature. Some of these texts also use the term 'distributed ledger technologies', abbreviated as DLT (Houben & Snyers, 2018).

Whichever definition one adopts, the key characteristics associated with blockchain and cryptocurrencies are:

- *decentralized,* meaning that the database is not held on one central computer system, but instead is distributed among many connected computers with no single computer having overall control (in computer science jargon, a peer-to-peer computer network);
- *publicly accessible,* meaning anyone with access to the system is able to see anyone else's records or transactions (without knowing the actual identity of the person or entity that created the transactions);
- *simultaneous,* meaning that users can concurrently access the same set of records; and
- *immutable,* meaning that the data in a blockchain cannot be changed.

Occasionally, the keyword 'trustless' is used to indicate that with blockchain technology there is no need to trust anyone except the system itself. A built-in mechanism is used to validate blockchain transactions. OECD (n.d.), Sultan, Ruhi, and Lakhani (2018), Tapscott and Tapscott (2018), and Viriyasitavat and Hoonsopon (2019) elaborate further on the above key attributes.

THE REASON WHY THE technology has been called 'blockchain' is that the units of data referred to as 'blocks' are linked together by a set of pointers and so form a 'chain' of blocks. Each block, apart from containing the actual validated data in encrypted form, contains a pointer to the previous block. The blocks are therefore stored in chronological order.

The reason why the technology has been called 'blockchain' is that the units of data referred to as 'blocks' are linked together by a set of pointers and so form a 'chain' of blocks. Each block, apart from containing the actual validated data in encrypted form, contains a pointer to the previous block. The blocks are therefore stored in chronological order. These pointers are 'hash' pointers, encrypted addresses based on the date and time when the blocks were created, as well as on the data itself. The generated hash values are all of fixed-length, thus increasing security since anyone trying to decrypt the hash will be unable to tell how long or short the input is simply by looking at the length of the output. Additionally, each block header contains the hash of the previous block, and other information such that trying to change even one character from the data of some block will affect how that block is linked to the previous one. Attempting to alter the information of an existing data block in any way is therefore made extremely difficult, not only because of the way these hashes are created (computed mathematically) but also because a copy of the same block is saved on thousands or millions of computers on the network. This makes the blockchain data almost impossible to tamper with. Other advantages include transparency, security, improved

accuracy (by eliminating human involvement in the verification processes), and cost reductions (by eliminating third party verification).

When used for cryptocurrencies, blockchain technology does raise some concerns. In a report prepared specifically for the European Parliament, Houben and Snyers (2018) note its use for illicit activities (such as money laundering, terrorist financing, and tax evasion) primarily as a result of the anonymity surrounding cryptocurrencies. They point out that the existing legal framework is still inadequate to deal with this issue. Other weaknesses are that certain systems, such as cryptocurrency exchanges and wallet providers, could still be (and have been) hacked. Moreover, some systems are still unable to cope with very high transaction rates, apart from the significant technology cost associated with cryptocurrency mining (the process by which transactions are verified and added to the blockchain). Some features of the blockchain technology and digital assets such as the lack of a trusted counterparty, increased anonymity, and ease of cross-border money transfer without any gating or restriction have been at the forefront of debates about money laundering and can present heightened compliance risks (Russel & Wiltermuth, 2019). Valfalls and Egilsson (2016) even speculate that, given a combination of factors, the distributed Bitcoin ledger could become vulnerable to attack (and its trustless nature ultimately destroyed).

The British Virgin Islands (Tortola pictured here) recognizes both Bitcoin and Ether focused funds.

BLOCKCHAIN APPLICATIONS AND CHARACTERISTICS

Apart from cryptocurrencies, the blockchain technology has an almost unlimited range of applications. Its important property of eliminating the need for a third (intermediary) party, hence saving costs, can be used to advantage in other situations. For example, artists can publish their works on blockchain and sell them directly to customers without intermediaries. This example can be extended to the retail industry in general and services in particular, where buyers and sellers are connected via smart contract systems without the need of an intermediary. For less centrally located island states where access to a physical bank is difficult or the transactions are more costly, this characteristic makes it easy for people to transfer money, provided the proper setup is in place.

The security and transparency features of blockchain are likewise applicable to various industries: for example, healthcare providers can securely store their patients' medical records and, with the aid of a digital private key, make them accessible to specific individuals. In the real estate leasing world, customers are demanding more transparency and ideally would want to be able to view properties from different real estate agents simultaneously without having to visit every one of the real estate agents' sites. For large companies, the possibility of using the storage features of the Cloud but in a decentralized manner is also inherently safer.

Kshetri (2017), Parker (2018), and Tapscott and Tapscott (2018) provide several concrete examples of blockchain applications. Koenig (2018) succinctly lists some of the advantages of blockchain for small countries.

CRYPTOCURRENCIES AND THEIR IMPLICATIONS

It has been estimated that by November 2018 there were over 2,500 different cryptocurrencies on the Internet (Bright, 2018). However, the market is exceptionally top heavy: by market capitalization, just 25 of these make up 90% of the market value, with Bitcoin making up for almost 60% of these top 25 entities. Bagshaw (2019) gives a figure of 2,957 for the total number of cryptocurrencies as of October 2019, of which the top 10 represent about 85% of the total market valued at roughly US$221 billion.

Cryptocurrencies pose real challenges for governments, policymakers, the legal profession, and all those involved in forming regulation and legislation. The implications of introducing cryptocurrencies and making them legal tender are various. For example, how do they affect global anti-money laundering efforts? How should they be regulated? Should the definitions of what constitutes an already well-defined entity (for example, a financial security) be changed to accommodate the new technology? Would an Initial Coin Offering (ICO) qualify as a security given the current definition of this term? How willing would insurance companies be to cover cryptocurrency investments? These are questions governments would need to grapple with; indeed,

they have already begun to do so. Governments also need to discuss perhaps the less obvious, but nevertheless just as pertinent, issues, such as what happens when someone holding cryptocurrency assets dies: what happens to the deceased's estate and how will the deceased's beneficiary be able to access the deceased's digital assets? The recent death of Gerald Cotten (the CEO of Quadriga, Canada's largest cryptocurrency exchange) is a case in point. Finally, many countries (Malta included) impose border restrictions on physically transporting large amounts of cash into or out of the country, so given the nature of digital assets, how would one go about meeting this regulation when a distributed ledger is being used?

It is not the scope of this chapter to delve into these challenges—all of which are discussed elsewhere (Campbell-Verduyn, 2018; Houben & Snyers, 2018; Tapscott & Tapscott, 2018)—rather, it is only to show why it has taken governments so long to pass the relevant legislation.

WHAT HAPPENS WHEN someone holding cryptocurrency assets dies?

The recent death of Gerald Cotten, the CEO of Quadriga, Canada's largest cryptocurrency exchange, is a case in point.

BLOCKCHAIN AND CRYPTOCURRENCY IN SMALL ISLAND JURISDICTIONS

Although a few small island states and territories, like some large nations, are either against introducing blockchain and cryptocurrencies or adopting a wait-and-see approach, many small jurisdictions are keen to embrace these new forms of technologies, even though in some cases it is not exactly very clear how to proceed. The reasons for, or against, investing in blockchain and cryptocurrency are various, being in most cases politically and/or economically motivated. If properly implemented, small isolated island states, in particular, likely stand to gain from this new technology. Before we focus on Malta, a place that is very keen to be at the forefront of blockchain technology, we first summarize the state of play regarding cryptocurrencies in some small island jurisdictions. The cases of Iceland and the Marshall Islands are revealing and therefore dealt with in more detail.

Many small jurisdictions have been hesitant to introduce cryptocurrencies—some more than others. Among those that have been very cautious, we find Macau and Guernsey. Although the use of cryptocurrencies such as Bitcoin to facilitate deals between private individuals is legal in Macau, the island has completely banned ICOs and has no plans to allow the use of cryptocurrencies for gaming, a sector for which it is world famous (Stradbrooke, 2018). Guernsey, a British Crown Dependency, is a low-tax jurisdiction which has taken a cautious approach to cryptocurrencies. It has large

The Cayman Islands has been a leading financial centre for years.

financial and online gambling sectors, and the reason it gives for being cautious is the difficulty in complying with international anti-money-laundering standards. The British Virgin Islands recognizes Bitcoin and Ether focused funds, however the primary concern relates to ICOs and Initial Public Offerings (IPOs). The challenge (as with so many other jurisdictions) is how to regulate such offerings. Consequently, the British Virgin Islands is currently studying how this will be achieved (Harbison & Clinton, 2019). Like Guernsey, the Isle of Man is also a British Crown Dependency and a low-tax jurisdiction, yet its stance on cryptocurrencies has been different from that of Guernsey. In fact, the Isle of Man was an early adopter and permits the use of cryptocurrencies as a means of payment. The Cayman Islands has been a leading global financial centre for many years, with a good reputation and generally accepted monetary legislation in place. Therefore, like some other jurisdictions with similar experience, it recognized the economic potential of blockchain and cryptocurrencies and therefore has encouraged activity in this space, provided that companies abide by anti-money-laundering (AML) rules. In the same way as government bonds can be sold for funding projects, the government of Antigua and Barbuda allows the funding of projects through government-supported anti-money-laundering (AML) ICOs.

MANY JURISDICTIONS ARE wary of the potential negative effects cryptocurrencies can have on their good financial reputation and therefore frequently allow certain activities only if anti-money-laundering (AML) and Know Your Customer (KYC) rules are adhered to.

As can be seen, many jurisdictions are wary of the potential negative effects cryptocurrencies can have on their good financial reputation and therefore frequently allow certain activities only if AML and Know Your Customer (KYC) rules are adhered to.

ICELAND

An independent nation in the North Atlantic, Iceland once belonged to Denmark and Norway, but in 1918 it gained sovereignty, and then became a republic in 1944. Iceland covers a total area of 102,755 km^2 yet its population is under 400,000, making it one of the most sparsely populated countries at just 3.4 inhabitants per km^2. Contrast this with Malta, which has a population density of approximately 1,400. About two-thirds of the population live in or around Reykjavík, the capital city, with the remaining inhabitants settled in other towns scattered around Iceland's coastline. Iceland is not an EU member, but in 1960 it joined the European Free Trade Association (EFTA), and in 1994 became part of the European Economic Area. The currency is the Icelandic Krona (ISK).

Iceland's 2018 per capita GDP of US$54,753 is relatively high. However, this has not always been the case. Before the Second World War, its economy was rather weak. Unlike the situation in some other countries, the war brought prosperity to Iceland because of an influx of American soldiers and the execution of engineering projects which provided work. The country also benefited from Marshall Plan aid after the war.

Iceland made headlines in 2008 when, as a result of the worldwide financial crisis,

About two-thirds of Iceland's population lives in Reykjavik. In the summer of 2019, Iceland announced the legalization of the use of cryptocurrencies.

the nation's entire banking system failed. This led to an economic depression, political unrest, and the institution of capital controls. It was reported that the Icelandic Krona had declined more than 35% against the Euro in an eight-month period in 2008 (Tatar, 2019). Yet, within about five years, the island has made an astonishing recovery, at least partly because of tourism (Tan, 2018; University of Pennsylvania, 2018). This is an example of how islands can adjust quickly to unfavourable circumstances despite their fragility.

Iceland's connection with blockchain and cryptocurrencies goes back a number of years. Not long after Bitcoin was launched, cryptocurrency miners soon started operating from Iceland. That is because crypto mining uses considerable energy and Iceland has an abundant supply of renewable (geothermal and hydropower) sources. The cold weather also helps to minimize costs for the cooling needed for the computers to run.

Although Iceland has welcomed this type of activity, it still has very strict foreign exchange rules, and cryptocurrency trading was, until recently, prohibited. In 2013, in anticipation of the Auroracoin project—a private initiative that created Iceland's own digital coin with the intention to serve as a mechanism for cross-border transfers in the local economy—the Central Bank of Iceland passed a law, the Icelandic Foreign Exchange Act, which prohibited the use of Bitcoin for foreign exchange trading. However, in the summer of 2019, Iceland's Financial Supervisory Authority announced the legalization of the use of cryptocurrencies (Joshi, 2019). It issued its first licence to Monerium, a Reykjavík-based company founded in 2015. This means that people in Iceland can now legally effect transactions with digital money that involve other countries. It is a move that sees Iceland shifting its focus from merely crypto mining to blockchain.

As mentioned, Iceland has been a haven for cryptocurrency mining companies. According to Styrmir Hafliðason, who runs a large data centre south of Reykjavík, multiple requests per week are made to his company by crypto miners to set up a base in Iceland (Moskvitch, 2018). The cryptocurrency miners' hardware is consuming so much energy that serious concerns are being raised. Environmentalists are worried that, given that it is now more difficult to mine bitcoins, considerable damage is being done to the country as more and more geothermal power plants are built over natural hot spring areas, ruining the landscape (Bjarnason, 2019). Even the power from hydroelectric dams is not so 'green' since these sink untouched land under water and alter rivers and waterfalls. Yet, it appears that the Icelandic government is doing little in this regard.

Apart from the environmental impact, the Icelandic government is also worried that this technology could severely damage its economy if the crypto mining boom ends in a bust (Joshi, 2019; Billing, 2019). Whilst projects like this, which involve large farms of data centres, provide economic returns for energy providers, it would be especially devastating for the country that has only recently recovered from the 2008 financial crash if this were to happen.

THE MARSHALL ISLANDS

The Republic of the Marshall Islands (RMI) is a small Pacific jurisdiction with a population of just over 58,000 spread out over many atolls (World Bank, 2019). It is a sovereign state in a free association with the United States which provides defence and financial assistance. The Compact of Free Association (with the US) also allows the Marshallese to freely relocate to the US to work there. The monetary currency is the US dollar.

Located almost 4,000 km northeast of Cairns, Australia, the RMI is hampered by logistical challenges but also by climate and health issues. It is not uncommon for big storms to hit the Marshall Islands with devastating effects (Pacific RISA, n.d.); regarding health, it will be recalled that between 1948 and 1956 America carried out considerable nuclear testing at the RMI's Bikini Atoll with the consequence that some of the islanders there still suffer from the terrible aftereffects of radioactivity (Geggel, 2019; Raj, 2019).

OF THE SMALL ISLAND STATES and territories that are using blockchain, the Republic of the Marshall Islands (RMI) is perhaps the first to create its own digital blockchain currency. To be called the Marshallese sovereign (SOV), this currency will eventually be made legal tender along with the US dollar.

Economically, the RMI's 2018 GDP per capita was US$3,449.00 (UN, 2019), with most of its revenue being derived from US aid (60% of the annual budget), and 30% of the workforce being employed by the Marshallese government. The rest of the economy is linked to a subsistence economy of fishing and agriculture (CIA, 2019; GlobalEdge, n.d.). Marine resources (fishing and aquaculture), tourism, and agriculture have been the top government development priorities, including selling fishing rights to other nations and offering ship registrations under the RMI flag (Société Générale, 2019). Recently, the Marshallese government has taken a step towards introducing cryptocurrency.

Of the small island states and territories that are using blockchain, the RMI is perhaps the first to create its own digital blockchain currency. To be called the Marshallese sovereign (SOV), this currency will eventually be made legal tender along with the US dollar. First announced in February 2018, it was quickly followed by a law that launched the digital currency project (Ossinger, 2019; TRMI Sovereign Currency Act, 2018). A non-profit institution called the SOV Development Fund was established to maintain the digital currency system. Not everyone in the RMI approved of the project. Indeed, political opponents of the RMI's President used the issue to force a vote of no confidence in November 2018, which the President marginally won, and the US Treasury Department as well as the International Monetary Fund (IMF) have also expressed serious concern (Orcutt, 2019).

In spite of this scepticism, the RMI government was adamant about its cryptocurrency policy and, in September 2019, after months of silence (during which consulta-

tions with blockchain experts, US officials, and United Nations personnel were taking place), it announced at the Invest: Asia 2019 cryptocurrency forum held in Singapore its intention to press ahead with the project. Once introduced, the SOV will circulate as legal tender in parallel with the US dollar.

As would be expected of such an important and delicate project, many stakeholders are involved, from blockchain experts (including Steve Tendon who also happens to be on Malta's National Blockchain Task Force) to US and IMF diplomats and consultants. Interestingly, the SOV will be introduced to the market gradually through a Time Release Monetary Issuance (TRMI) rather like a token pre-sale (Ossinger, 2019). Because of this and since many of the finer details still have to be worked out, it will not be the SOV that people will be buying initially, but units (in the form of Initial Coin Offerings) that would later be exchanged for it (by the public having access to software to effect transactions) (Comben, 2019).


Majuro Atoll, Marshall Islands.

According to Steve Tendon, who was interviewed in September 2019 by Christina Comben of Coinrivet (Comben, 2019), another reason for the TRMI (which is anticipated to span 18 months) is to keep the speculators out and ensure that only long-term investors participate in the project. The intention is to issue the SOV on a specially developed blockchain that has built-in compliance features: it is algorithmically programmed to grow at a fixed rate (set at 4%) per year, and government will not be able to interfere and increase the supply, which would thereby devalue the currency.

A prime motive for proceeding with this project of creating a digital currency and making it legal tender instead of issuing a central bank digital currency has to do with resilience and sustainability. In the event of a major catastrophic event in which the RMI's inhabitants would need to settle elsewhere, the citizens would still have their digital legacy and information safeguarded on a blockchain. This may seem to be a remote scenario, but it is not inconceivable. In fact, the RMI's cryptocurrency policy states that a percentage of the issuance of the SOV digital currency will be designated to predetermined funds in a bid to help the RMI deal with the possible multiple environmental disasters (TRMI White Paper, 2019). Another motivation is to not remain completely dependent on the US dollar, especially when the financial aid the country receives from the US government may come to an end in 2023 (Asian Development Bank, 2019; Ossinger, 2019).

In brief, the intention is for the SOV to leverage innovation in digital currency and sustain the islands' future. By placing the bulk of the proceeds from the sale into a trust, the government hopes to become more resilient to the consequences of climate change and dependency on the US government.

THE CASE OF MALTA

The small Mediterranean island of Malta, which at the end of 2018 had a population of just under half a million (National Statistics Office, 2019), has an interesting political and socioeconomic history.

After a brief occupation by the French during the time of Napoleon Bonaparte, Malta was taken over by the British and officially became a British subject in 1814. Owing to its strategic location and because Malta was still under colonial rule, it was heavily bombed by the Axis powers during the Second World War and suffered extensive damages as a result. Following the war, the island went through a slow process of economic recovery. Poverty was widespread, and in the 1950s when jobs were scarce many Maltese emigrated to Australia, Canada, the United Kingdom, and the United States.

Following Independence in 1964, a number of socioeconomic programs were drafted and carried through to improve the well-being of the islanders and increase wealth. These programs ranged from building state housing and introducing children's allowance and a national minimum wage, to upgrading the telecommunications system and building new hotels. An effort was made to also develop the manufacturing sector by encouraging foreign firms to operate from Malta, provided they employed Maltese personnel. To this end, a number of industrial estates were made available for factories to operate from. The textile industry, in particular, had a prominent presence through-

Night life in Valletta town streets, Malta.

out the 1970s and 1980s, employing a sizeable chunk of the low-skilled workforce.

In small island states, especially those that are geographically well-placed, tourism has always been given the importance it deserves as a means of generating income, and this is no exception with Malta. The figures speak for themselves. From a mere 28,000 tourists annually in 1960 to almost 236,000 in 1970, 1.3 million in 2010, and over 2.5 million in 2018 (Boissevain, 2000; Malta Tourism Authority, 2019, p. 8), the contribution from this services industry to the GDP has been substantial: in 2018, tourist expenditure amounted to EUR 2.1 billion, equivalent to EUR 809 per capita and 17% of the GDP.

The manufacturing industry continued to be strengthened in the late 1980s when a number of industrial development laws were enacted to incentivize primarily export-oriented companies. At the same time, it was realized that in order to sustain the economy it was necessary to also concentrate on the services industries, for which an all-encompassing infrastructure had to be in place. Therefore, in the 1990s the telecommunications network, in particular, was further upgraded so that the hospitality sector, financial institutions, and software firms, among others, would be in a better position to conduct business. The dot-com boom of the mid-1990s created new business opportunities, new jobs, and enabled software companies to grow (Aloisio, 2015). Tertiary-level education was also heavily invested in. A combination of factors that include a mild climate, political stability, a well-educated workforce, and a sound ICT infrastructure, apart from favourable business incentives, has been frequently advertised by government to attract foreign companies, i-Gaming firms included. The latter performed exceptionally well, with the i-Gaming industry now accounting for 12% of the GDP (Anastasi, 2018).

GIVEN THE SUCCESS OF THE electronic gaming industry in Malta, it was perhaps only natural for the Maltese government to consider the relatively new technology of blockchain and cryptocurrency as the island's next means of potential economic development.

EMBRACING THE BLOCKCHAIN

Given the success of the electronic gaming industry in Malta, it was perhaps only natural for the Maltese government to consider the relatively new technology of blockchain and cryptocurrency as the island's next means of potential economic development. After all, the i-Gaming and financial technology ("fintech") sectors were built on an existing and robust ICT infrastructure and a supply of an already skilled workforce of ICT engineers, software developers, consulting firms and experts in the legal and financial professions. Likewise, the appropriate financial and telecommunications regulations and the legislative framework relating to finance, telecommunications, intellectual property, electronic gaming, and information technology in general

were already in place. Regulatory bodies such as the Malta Financial Services Authority (MFSA), the Malta Gaming Authority (MGA), and the Malta Communications Authority (MCA) had, likewise, been established for a number of years. All this augured well for pursuing the new technology of blockchain; the foundation for establishing this industry onboard already existed.

The beginnings of blockchain in Malta go back to the summer of 2016 when, at the request of the Minister for the Economy, Dr. Chris Cardona, a draft version of the Malta National Blockchain Strategy (MNBS) was prepared for eventual approval by cabinet. This document outlined a plan to implement blockchain technology not just in finance but across multiple sectors. It was presented to cabinet and approved by the Cabinet of Ministers in April 2017, following which the Prime Minister, Dr. Joseph Muscat, formally announced this strategy (*The Malta Independent*, 2018). The MNBS was to be headed by Silvio Schembri, a parliamentary secretary, later the Junior Minister for Financial Services, Digital Economy and Innovation within the office of the Prime Minister.

At a press conference in February 2018, another consultation document ("The Establishment of the Malta Digital Innovation Authority; the Framework for the Certification of Distributed Ledger Technology Platforms and Related Service Providers; and a Virtual Currency Act") was released. This document proposed three independent but related bills, plans for the creation of an appropriate supervisory authority, creation of a law relating to DLTs, and creation of a law relating to virtual currencies. Following a period of consultations, the three proposed bills became law in November 2018. These Acts are described in more detail below:

The Malta Digital Innovation Authority Act

Purpose and Objectives: Establishes the Malta Digital Innovation Authority (MDIA) to "promote and develop the innovative technology sector in Malta by means of proper recognition and regulation of relevant innovative technology arrangements and related services" (MDIA Act, 2018, p. 4). A main objective is to promote government policies that favour technical innovation, particularly with reference to digital ledger technology and its adoption by the government in systems of public administration. Other objectives include the promotion of education on ethical standards and legitimate exploitation of innovative technology, and maintaining Malta's reputation as well as protecting consumers.

Innovation Technology Arrangements and Services Act

Purpose and Objectives: Establishes a regime for registering technology service providers and provides for the certification of certain technology arrangements (ITAS Act, 2018). This regime covers distributed ledger technology platforms and related contracts. The objective is to have companies that provide services for any DLT platform in or from Malta to be certified by the MDIA.

Virtual Financial Assets Act

Purpose and Objectives: Establishes a framework to "regulate the field of Initial Virtual Financial Asset Offerings and Virtual Financial Assets and to make provision for matters ancillary or incidental thereto or connected therewith" (VFA Act, 2018, p. 1). The law thus provides for the regulation of those providing services relating to cryptocurrencies, such as brokers, wallet providers, and DLT exchanges. The objective is to ensure that any offerings by an issuer meet the transparency requirements.

The above legislation essentially provides a comprehensive regulatory framework to govern cryptocurrency, blockchain, and ICOs, and has been written in such a way as to prevent the laws from becoming rapidly obsolete, or from stifling technological development (Parliamentary Secretariat for Financial Services et al., 2018). The response from various industries, particularly legal firms, was generally positive. The Virtual Financial Assets Act makes reference to a "VFA agent", one authorized by the MFSA (hence VFA certified) to carry out certain duties such that the agent would be in a position to assist potential ICO issuers and crypto exchanges to themselves obtain the necessary licensing. This VFA agent would typically be a firm of advocates, accountants or auditors, or corporate services providers (VFA Act, 2018). In effect, some of the work that would otherwise have been done by the MFSA is now relegated to these VFA-certified agents, mostly legal organizations. As of October 2019, 17 VFA agents and 5 system auditors have been certified by the MFSA (Galea, 2019).

FROM 2017 TO THE PRESENT, Malta saw substantial activity in the blockchain and cryptocurrency space. A number of blockchain businesses have been established in Malta, including Binance (which relocated to Malta from Hong Kong) and OKCoin, two of the world's largest fiat-to-crypto exchanges.

BLOCKCHAIN-RELATED EVENTS AND OTHER INITIATIVES IN MALTA

From 2017 to the present, Malta saw substantial activity in the blockchain and cryptocurrency space. A number of blockchain businesses have been established in Malta, including Binance (which relocated to Malta from Hong Kong) and OKCoin, two of the world's largest fiat-to-crypto exchanges. In September 2017, the Ministry of Education and Employment announced a project whereby education and academic records would be put on blockchain. Involving educational institutions such as the Institute of Tourism Studies, the MCAST, and the National Commission for Further and Higher Eduction, as well as the Education Ministry itself, which effectively is its Manager, this pilot project called BlockCerts is now well under way (Camilleri, 2019). Also under way is the placing of the registry of rents on blockchain and, similarly, the Registry of Companies data held at the Malta Business Registry office, a task that would help, for

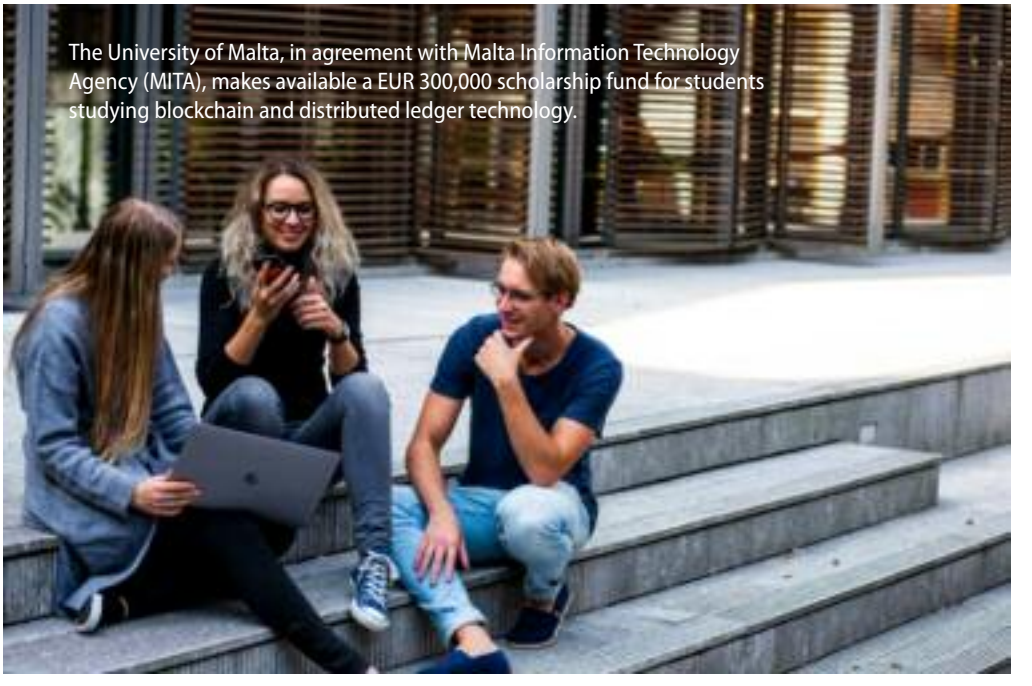
example, compare signatures on documents that are needed for the submission of applications.

An early initiative, mentioned in the Budget for 2018, was that of setting up a Blockchain Laboratory and a Blockchain Startup Hub (Scicluna, 2018). The Blockchain Lab aims to train civil servants to become acquainted with the use of blockchain technology, whereas the Blockchain Hub is targeted at startups and investors of this technology. These projects come under the remit of the Malta Information Technology Agency (MITA), Malta's national ICT organization.

In October 2018, the first edition of the Delta Summit—the Maltese Government's official blockchain and innovation event—was held in the tourist town of Saint Julian's, an event that brought together hundreds of experts from all over the globe. This was followed in November by the first ever Malta Blockchain Summit in which an estimated 8,500 participants were reported to have attended, with over 400 companies showcasing their products (The Malta Independent, 2018). It was an event in which the attendees could learn and network via workshops, keynote speeches, and first-hand encounters with the exhibitors. These two events were repeated in 2019 with equal success.

The Delta Summit is Malta's official blockchain and innovation event.

At roughly the same time, the University of Malta (UOM), in agreement with MITA, made available a EUR 300,000 scholarship fund for students studying blockchain and distributed ledger technology, in the hope that Malta would maintain its place as an international hub for the development of skilled professionals in the fintech industry (Welcome Centre Malta, 2018). A review of the law, finance, and ICT degree programs was also being carried out by the UOM in order to support the government's strategy of promoting Malta as 'The Blockchain Island'. Similarly, the MFSA, sometimes in collaboration with institutions such as the Malta Institute of Management and the Institute of Directors, also organized a series of training courses and seminars for the purpose of updating employees on new developments in blockchain technology. As a



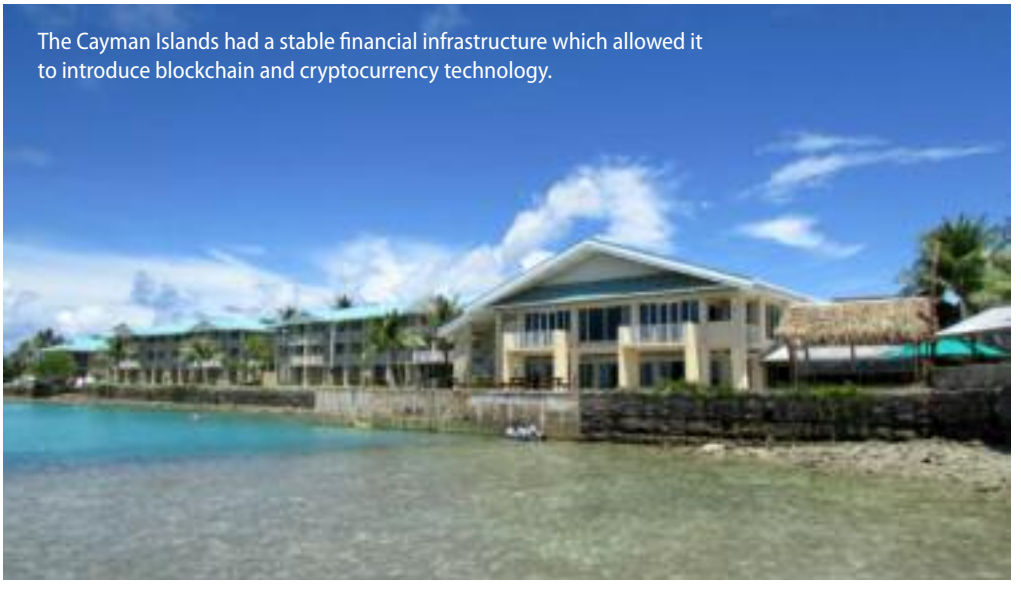
The University of Malta, in agreement with Malta Information Technology Agency (MITA), makes available a EUR 300,000 scholarship fund for students studying blockchain and distributed ledger technology.

fintech regulatory body, the MFSA has also been instrumental in educating the public about the possible risks of cryptocurrency investments and, conversely, about the opportunities provided by the blockchain technology.

Another government initiative in collaboration with the Malta Chamber of Commerce, Enterprise, and Industry, announced in the Budget for 2019, is Tech.mt, a private-public partnership foundation aimed at assisting technology companies based in Malta in exporting their information and communications technology beyond Malta's shores. This was to be accomplished by actively promoting Malta in foreign fairs, conferences, and educational institutions (MaltaChamber, 2019). The Tech.mt portal provides comprehensive details of what this foundation has to offer.

CONCLUDING REMARKS

As the blockchain and cryptocurrency technology has been expanding and establishing itself, jurisdictions worldwide have taken different positions, with some banning it outright, others opting for a wait-and-see approach, and yet others embracing it. Small island states and territories, in particular, have been conscious of the technology's potential, seeing it as a new economic development strategy. The circumstances which have led to the technology's uptake in some small jurisdictions have, in some cases, been different. Like Malta, for example, the Cayman Islands already had a stable financial infrastructure (including its regulatory frameworks) to be in a favourable position to introduce the technology. This is not the case with other jurisdictions (for example, those of the Comoros and Solomon Islands) which may lack the same reputation in legal, financial, and telecommunications infrastructure and regulation.



The Cayman Islands had a stable financial infrastructure which allowed it to introduce blockchain and cryptocurrency technology.

An overarching goal of any nation wanting to adopt blockchain and cryptocurrency technology is to increase its economic wealth. Again, how this is achieved, the extent of government involvement, and the reasons given for investing in the new technology have varied significantly from country to country. The Marshall Islands' rationale for creating the SOV is its remoteness, its dependency on the US dollar, and its potential risk from environmental disasters and financial instability. Iceland's generally positive attitude to blockchain (but initially not to Bitcoin per se) has been quite different. The Icelandic government, wary of a possible repeat of the 2008 financial crisis and conscious of the advantage it possesses in the energy supply—an important asset for cryptocurrency mining—took a stance whereby these companies were welcomed. Both

islands are proof that distance is not a barrier to this kind of technology, a feature that is potentially attractive to jurisdictions facing high goods transportation costs. The peninsular territory of Gibraltar has regulation for DLT services firms to be licensed provided they comply with AML requirements and pay an annual fee of £10,000.

As for Malta, there has been substantial economic growth over the past few years and the government intends to continue this trend by diversifying into new niche sectors, including blockchain and cryptocurrency. While major economies have been reluctant in regulating this technology, Malta has adopted a remarkably progressive stance towards cryptocurrencies and blockchain technologies. The island has moved quickly to establish itself as an international blockchain hub by introducing legislation to bring virtual assets and DLTs into the regulatory fold. Indeed, it has been argued by Christopher Buttigieg, the MFSA's chief strategic officer, that under the VFA framework Malta has imposed requirements which go beyond the EU's Fifth AML Directive (Attard, 2019). However, the Maltese government is not stopping there. Noting the spillover effect of companies from the i-Gaming industry now producing products supported by blockchain technology, and overseas firms relocating to, or opening an additional branch in, Malta, the government has recently announced new strategies for AI, video games development, and eSport (Malta.AI, 2019). With a framework that provides legal certainty and a digital infrastructure that promises to be cybersecure, companies will be in a better position to operate locally on a variety of innovative digital projects. The challenge is perhaps that of finding sufficiently skilled and qualified local personnel, since the number of graduates properly trained in the relevant disciplines does not seem to match the demand for these employees in the digital industry.

WHETHER OR NOT cryptocurrencies and blockchain technologies are primarily utopian dreams remains to be seen. It is only now that blockchain's many applications are becoming apparent and these are creating new ways of doing business, ways which make it possible to operate more efficiently and competitively.

Whether or not cryptocurrencies and blockchain technologies are primarily utopian dreams remains to be seen. It is only now that blockchain's many applications are becoming apparent and these are creating new ways of doing business, ways which make it possible to operate more efficiently and competitively. Many firms are incorporating some of their business functions into the distributed blockchain ledger. Industry giants like Google, Microsoft, IBM, and Amazon, among others, have already invested heavily in AI and blockchain-related projects. If governments fail to follow in the same footsteps, they risk falling behind, economically and socially. Blockchain may not be a utopian strategy for all small island states and territories but, given the above, they would do well to investigate the possibilities, if they have not already done so.

REFERENCES

Aloisio, M. (2015). Software and electronic gaming industries in Malta. In G. Baldacchino (Ed.). *Entrepreneurship in small island states and territories* (pp. 235-250). Oxford & New York: Routledge.

Anastasi, R. (2018, June 23). *How much is the iGaming industry in Malta really worth*? The Malta Chamber. Retrieved from https://www.maltachamber.org.mt/en/how-much-is-the-igaming-industry-in-malta-really-worth

Asian Development Bank. (2019). ADB's work in the Marshall Islands. Retrieved from https://www.adb.org/countries/marshall-islands/overview

Attard, C. (2019). Malta finance: Risk on or off? *BLOCK, 3,* 40-44.

Bagshaw, R. (2019, October 8). *Top 10 cryptocurrencies by market capitalisation*. Yahoo Finance. Retrieved from https://finance.yahoo.com/news/top-10-cryptocurrencies-market-capitalisation-160046487.html

Baldacchino, G. (2015). Editorial–Small island states and territories: Vulnerable, resilient, but also doggedly perseverant and cleverly optimistic. In G. Baldacchino (Ed.). *Entrepreneurship in small island states and territories* (pp. 1-28). Oxford & New York: Routledge.

Billing, M. (2019, July 3). *Can Iceland handle the repeated boom and bust of Bitcoin mining?* Sifted. Retrieved from https://sifted.eu/articles/cryptocurrency-mining-in-iceland

Bjarnason, E. (2019, April 15). *Iceland is a bitcoin miner's haven, but not everyone is happy*. Al Jazeera. Retrieved from https://www.aljazeera.com/indepth/features/iceland-bitcoin-miner-haven-happy-190414191134345.html

Boissevain, J. (2000). Changing Maltese landscape: From utilitarian space to heritage? In C. Vella (Ed.). *The Maltese islands on the move* (pp. 1-13). Malta: Central Office of Statistics.

Bright, J. (2018, November 28). *How many cryptocurrencies are there?* Coin Rivet. Retrieved from https://coinrivet.com/how-many-cryptocurrencies-are-there

Briguglio, L. (2018). The relation between economic resilience and competitiveness in small island states. In J. Randall (Ed.). *The 21st century Maritime Silk Road Islands Economic Cooperation Forum annual report on global islands 2017* (pp. 83-98). Charlottetown, PE: Island Studies Press.

Briguglio, L. (1995). Small island states and their economic vulnerabilities. *World Development*, *23*(9), 1615-1632.

Briguglio, L., Cordina, G., Farrugia, N., & Vella, S. (2009). Economic vulnerability and resilience: Concepts and measurements. *Oxford Development Studies, 37*(3), 229-247.

Camilleri, C. (2019). Blockchain and education: Is Malta's workforce prepared for the industry? *Blockchain Island, Winter 2019/2020,* 85-93.

Campbell-Verduyn, M. (2018). Bitcoin, crypto-coins, and global anti-money laundering governance. *Crime Law and Social Change*, *69,* 283-305.

CIA. (2019). The World Factbook–Marshall Islands. Retrieved from https://www.cia.gov/library/publications/the-world-factbook/geos/rm.html

Comben, C. (2019, September 22). *The Marshall Islands' national cryptocurrency is fascinating in so many ways*. Coin Rivet. Retrieved from https://coinrivet.com/the-marshall-islands-sov-cryptocurrency

Connell, J. (2013). *Islands at risk? Environments, economies and contemporary change.* Cheltenham: Edward Elgar.

Connell, J. (2014). Alderney: Gambling, bitcoin and the art of unorthodoxy. *Island Studies Journal, 9(*1), 69-78.

Easterly, W., & Kraay, A. C. (2000). Small states, small problems? Income, growth and volatility in small states. *World Development, 28*(11), 2013-2027.

Galea, A. (2019, October 27). 154 blockchain companies chosen for Malta; 'We want quality not quantity'—Silvio Schembri. *The Malta Independent*. Retrieved from https://www.independent.com.mt/articles/2019-10-27/local-news/154-blockchain-companies-chosen-for-Malta-we-want-quality-not-quantity-Silvio-Schembri-6736215333

Geggel, L. (2019, July 16). *The Marshall Islands are 10 times more 'radioactive' than Chernobyl.* Live Science. Retrieved from https://www.livescience.com/65949-marshall-islands-more-radioactivity-chernobyl.html

GlobalEdge. (n.d.). Marshall Islands: Economy. Retrieved from https://globaledge.msu.edu/countries/marshall-islands/economy

Haber, S., & Stornetta, W.S. (1991). How to time-stamp a digital document. *Journal of Cryptology, 3*(2), 99–111.

Houben, R., & Snyers, A. (2018). Cryptocurrencies and blockchain—Legal context and implications for financial crime, money laundering and tax evasion. Retrieved from https://www.europarl.europa.eu/supporting-analyses

Iansiti, M., & Lakhani, K.R. (2017). The truth about blockchain. *Harvard Business Review,* January-February, 3-11. Retrieved from https://enterprisersproject.com/sites/default/files/the_truth_about_blockchain.pdf

ITAS Act. (2018). *Innovative technology arrangements and services act, 2018*. Act XXXIII of 2018, Chapter 592 of the Laws of Malta.

Joshi, M. (2019, July 3). *Iceland begins its blockchain venture by legitimizing cryptocurrency use.* Cryptopolitan. Retrieved from https://www.cryptopolitan.com/iceland-begins-its-blockchain-venture-by-legitimizing-cryptocurrency-use

Koenig, R. (2018, August 3). *Blockchain technologies for small countries.* Crypto Digest News. Retrieved from https://cryptodigestnews.com/blockchain-technologies-for-small-countries-f5a00fc9108f

Kshetri, N. (2017). Can blockchain strengthen the internet of things? *IEEE IT Professional, 19*(4), 68-72. Retrieved from https://libres.uncg.edu/ir/uncg/f/N_Kshetri_Can_2017.pdf

Malta Tourism Authority. (2019). Tourism in Malta—Facts & figures 2018. Retrieved from https://www.mta.com.mt/en/file.aspx?f=32328

Malta.AI. (2019). *Malta: The ultimate AI launchpad—A strategy and vision for artificial intelligence in Malta 2030*. Malta: Parliamentary Secretariat for Financial Services, Digital Economy and Innovation and Malta.AI.

MaltaChamber. (2019, March 26). TECH.MT LAUNCHED. Retrieved from https://www.maltachamber.org.mt/en/tech-mt-launched

MDIA Act. (2018). *Malta Digital Innovation Authority Act, 2018*. Act XXXI of 2018, Chapter 591 of the Laws of Malta.

Moskvitch, K. (2018, June 27). The cryptocurrency boom risks crashing Iceland's economy. *Wired.* Retrieved from https://www.wired.co.uk/article/cryptocurrency-iceland-economy-bitcoin-data-centres

Nakamoto, S. (2008, October 31). Bitcoin: A peer-to-peer electronic cash system. Retrieved from http://www.bitcoin.org

National Statistics Office. (2019, July 10). News release. Retrieved from https://nso.gov.mt/en/News_Releases/View_by_Unit/Unit_C5/Population_and_Migration_Statistics/Documents/2019/News2019_108.pdf

OECD. (n.d.). Blockchain primer. Retrieved from https://www.oecd.org/finance/OECD-Blockchain-Primer.pdf

Orcutt, M. (2019, September 5). A tiny Pacific Island nation is about to issue its own cryptocurrency. *MIT Technology Review*. Retrieved from https://www.technologyreview.com/f/614271/a-tiny-pacific-island-nation-is-about-to-issue-its-own-cryptocurrency

Ossinger, J. (2019, September 11). *Tiny Pacific nation is making a go of its own digital currency.* Bloomberg Quint. Retrieved from https://www.bloombergquint.com/technology/tiny-pacific-nation-is-making-a-go-of-its-own-digital-currency

Pacific RISA. (n.d.). Marshall Islands. Retrieved from https://www.pacificrisa.org/places/republic-of-the-marshall-islands

Parker, A.G. (2018, December 19). *Blockchain, bitcoin and the rise of new money.* BCS. Retrieved from https://www.bcs.org/content-hub/blockchain-bitcoin-and-the-rise-of-new-money

Parliamentary Secretariat for Financial Services et al. (2018). Malta: A leader in DLT regulation. Malta: Office of the Prime Minister. Retrieved from https://meae.gov.mt/en/Public_Consultations/OPM/Documents/PS%20FSDEI%20%20DLT%20Regulation%20Document%20OUTPUT.PDF

Raj, A. (2019, November 10). In Marshall Islands, radiation threatens tradition of handing down stories by song. *LA Times*. Retrieved from https://www.latimes.com/projects/marshall-islands-radiation-effects-cancer

Russell, A., & Wiltermuth, D. (2019). *Cayman Islands blockchain and cryptocurrency regulation 2019* (1st ed.). Retrieved from https://www.careyolsen.com/sites/default/files/CO_CAY_Blockchain-and-Cryptocurrency-Regulation-2019-1st-Edition_1-19.pdf

Scicluna, E. (2017). *Budget speech 2018*. Malta: Ministry for Finance.

Société Générale. (2019). Marshall Island: Country risk. October. Retrieved from https://import-export.societegenerale.fr/en/country/marshall-islands/economy-country-risk

Stradbrooke, S. (2018, May 16). Macau regulator says no plans to okay cryptocurrency gaming. Retrieved from https://calvinayre.com/2018/05/16/bitcoin/macau-regulator-cryptocurrency-gaming-not-okay

Sultan, K., Ruhi, U., & Lakhani, R. (2018, April 14-16). *Conceptualizing blockchains: Characteristics & applications* [Conference paper]. 11th IADIS International Conference Information Systems, Lisbon, Portugal. Retrieved from https://arxiv.org/ftp/arxiv/papers/1806/1806.03693.pdf

Tan, G. (2018, January 15). *The 10 year recovery, and lessons from Iceland.* Policy Forum. Retrieved from https://www.policyforum.net/10-year-recovery-lessons-iceland

Tapscott, D., & Tapscott. A. (2018). *Blockchain revolution—How the technology behind BITCOIN and other CRYPTOCURRENCIES is changing the world.* London, UK: Penguin Business.

Tatar, J. (2019, June 25). *Iceland—Time to free bitcoin!* The Balance. Retrieved from https://www.thebalance.com/iceland-time-to-free-bitcoin-4030896

The Malta Independent. (2018, November 13). Malta and blockchain. *The Malta Independent.* Retrieved from https://www.independent.com.mt/articles/2018-11-13/business-news/Malta-and-Blockchain-6736199256

TRMI Sovereign Currency Act. (2018). Declaration and issuance of the Sovereign Currency Act, Pub. L. 2018-53. Retrieved from https://sov.foundation/law.pdf

TRMI White Paper. (2019, September 10). The Marshallese Sovereign (SOV): Fair, sustainable money. Retrieved from https://docsend.com/view/nvi59vw

United Nations (UN). (2019). *Marshall Islands–Country profile.* Retrieved from http://data.un.org/en/iso/mh.html

University of Pennsylvania. (2018, September 12). *How Iceland dealt with a volcanic financial meltdown*. Knowledge@Wharton. Retrieved from https://knowledge.wharton.upenn.edu/article/icelands-economic-recovery

Valfells, S., & Egilsson, J.H. (2016). Minting money with megawatts. *Proceedings of the IEEE, 104*(9), 1674-1678.

VFA Act. (2018). *Virtual Financial Assets Act, 2018.* Act XXX of 2018, Chapter 590 of the Laws of Malta.

Viriyasitavat, W., & Hoonsopon, D. (2019). Blockchain characteristics and consensus in modern business processes. *Journal of Industrial Information Integration, 13*, 32-39.

Welcome Centre Malta. (2018, September 14). *€300K cryptocurrency scholarship launched by the University of Malta.* Retrieved from https://www.welcome-center-malta.com/e300k-cryptocurrency-scholarship-launched-by-the-university-of-malta

World Bank. (2019). *Population, total.* Retrieved from https://data.worldbank.org/indicator/sp.pop.totl

This panoramic aerial view of the bay of Hainan Island, China, shows its hotels, resorts, harbour, and beach.

9

Accelerating the construction of the Hainan free trade port

with trade in services as the leading driver

CHI FULIN

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ABSTRACT

This chapter explores how to accelerate the construction of a Hainan free trade port with trade in services as the main driver. With the objective of building Hainan into a free trade port, taking Hainan's practical situation as a point of departure, it analyzes the international and internal developments of the services trade and concludes that making trade in services the

major driver for Hainan free trade port construction is in line with the general trend of economic globalization and the opening up of China. It then proposes a policy that Hainan should opt for making 'early arrangements' to a further opening up of its service markets and institutional innovations.

INTRODUCTION

What is the industrial position of the Hainan free trade port (hereinafter referred to as Hainan FTP)? As it stands, it is positioned to concentrate its efforts on developing tourism industries, modern services, and high and new technology industries. From the perspective of the future trends and characteristics of Hainan's development, the key point in accelerating the construction of Hainan FTP lies in expanding and speeding up the process of services trade liberalization. The process of services trade liberalization refers to the realization of freedom of investment, trade, cross-border movement of people, and currency exchange in specific service industries.

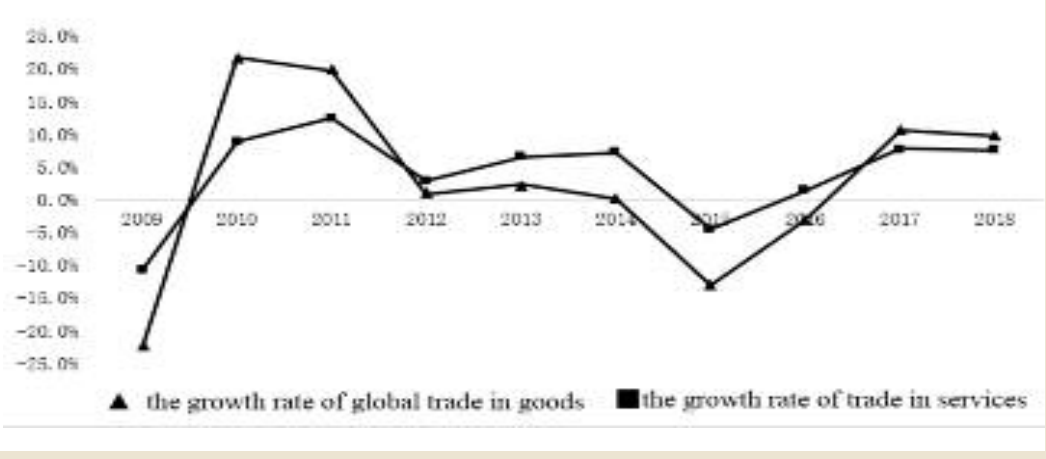
WHY TRADE IN SERVICES?

Constructing the Hainan FTP with trade in services as the leading driver is in line not only with the general trend of economic globalization and the transformation of China's opening up, but also with Hainan's development orientation. In the last ten years or so, the world witnessed rapid development of trade in services, and the global growth of services trade has been much faster than that of trade in goods (Chi, 2019b).

According to the World Trade Organization (WTO, 2019) statistics, from 2008 to 2018, the global trade in goods grew at an average annual rate of 1.9%, nearly two percentage points lower than the average growth rate of trade in services. Figure 9.1 shows that from 2012 to 2016, global trade in services grew faster than that in goods for four consecutive years, although, in 2017 and 2018, the growth rate of global trade in goods was higher than that of trade in services, which was mainly because of the rise of prices of oil, minerals, and other commodities. With this taken into account, the volume of trade in goods did not grow significantly. From 2005 to 2018, the total volume of global service exports increased from 2.66 trillion USD to 5.85 trillion USD, an increase of 120%. In 2018, global export of services accounted for 23.1% of the total exports, an increase of nearly 3 percentage points higher than that in 2005 and 3.7% higher than the lowest proportion in history in 2011.

The role of trade in services has become larger than that of trade in goods. Traditional trade statistics cannot fully reflect the scale of trade in services and its role in

FIGURE 9.1: **The Growth Rates of Global Trade in Services and in Goods from 2009 to 2018 (%)**



Source: WTO (2019).

the process of global free trade (Chi, 2019b; WTO, 2019). First, one-third of the value of trade in goods should be attributed to service industries. Second, services such as software, brands, design, operation, and intellectual property rights delivered by multinationals to their overseas subsidiaries are not counted in statistics of the services trade. Third, the cross-border flow of free digital services such as email, real-time navigation, and video conferencing has been rapidly growing. If the above three kinds of services were taken into account, the total volume of global trade in services would be about 13.4 trillion USD in 2017, 2.6 times the current figure; and the proportion of trade in services in the total global trade would become 50.8% instead of the current 23.4% (WTO, 2019), surpassing that of trade in goods.

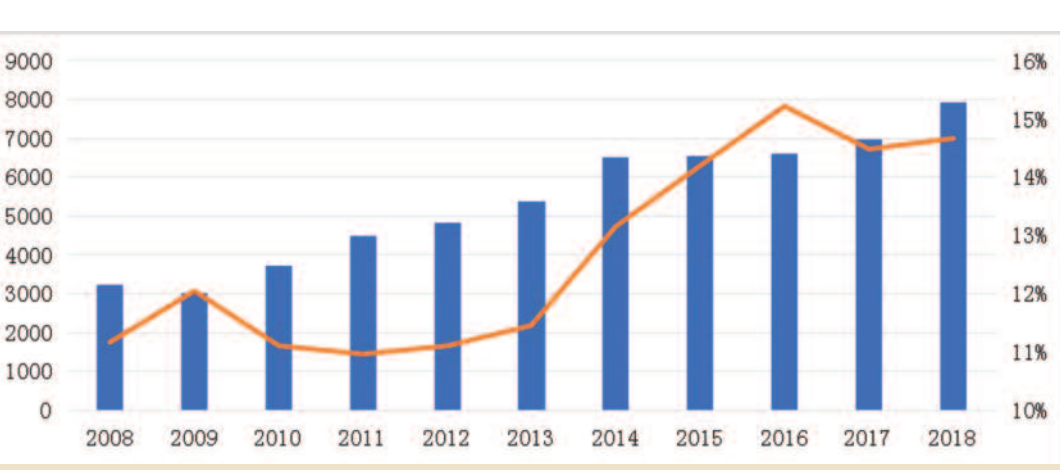
In the short term, along with the growth of importance of services trade in global economic development, trade in services has gradually become the focus in bilateral and regional trade negotiations. For example, only 60 of all the bilateral and regional free trade agreements signed before 2009 included trade in services, accounting for only 37.3% of all agreements. Among all the regional and bilateral free trade agreements signed between 2009 and 2019, the number of agreements involving trade in services increased to 98, accounting for 65% (author calculations based on WTO FTA, 2019). In addition, both the Trans-Pacific Partnership Agreement (TPP) and Comprehensive Progressive Trans-Pacific Partnership (CPTPP) contain articles about introducing a negative list (list of investment prohibited areas in an economy) approach both in services trade and in investment, and pre-establishment national treatment in the service sector. It can be expected that, in the future, trade in services will have more weight in bilateral and regional trade and investment negotiations.

FIGURE 9.2: **Share of Services in GDP in Global and Emerging Market Economies from 1970 to 2017**

Source: UNCTAD (2019).

Global trade in services promises to continue to grow rapidly. On one hand, there has been a clear trend of the global economy moving towards services (Yuan, Zhang, Liu, & Nan, 2016). Figure 9.2 shows that from 1970 to 2017, the share of the value-added of the service sector in global GDP grew from 53.4% to 67.5%, an increase of 14.1 percentage points. As seen in Figure 9.2, this trend is even more obvious in emerging market economies, with the share of the added value of their service sectors rising from 39.8% of GDP to 56.3% in the same period, an increase of 16.5 percentage points. On the other hand, wide application of information technology and Internet of Things (IoT) technologies in service industries has eliminated the barrier between the production and consumption of service products, and has provided technical conditions for the globalization of service industries and for the development of services trade. Traditionally non-tradable 'services' such as education, healthcare, medical treatment, culture, and others have gradually become tradable, enabling the number of services for trade to continuously enlarge and the scope of trade in services to continuously expand (Ma, 2019). In the future, rapid growth of the service sector will remain a major trend, and there is still considerable room for growth of global trade in services.

FIGURE 9.3: **China's Trade in Services and its Share in Total Trade in 2018 (US$100 million, %)**



Source: National Bureau of Statistics of the P.R.C. (2019).

Figure 9.3 shows that from 2008 to 2018, China's trade in services increased from 323.3 billion USD to 791.9 billion USD, with an average annual growth rate of 9.4%, 3.4 percentage points higher than that of trade in goods (National Bureau of Statistics of the P.R.C, 2019).

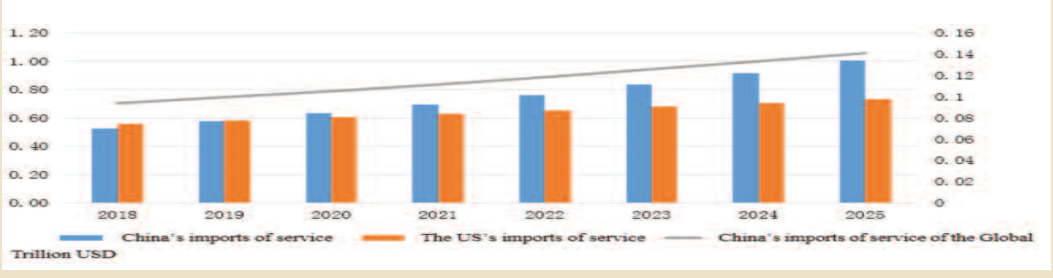
During the past five years from 2013 to 2018, China's import of services has been growing at an average annual rate of 9.7%, while services import of the United States has been growing at an average annual rate of 3.9%. It is estimated that by 2025, China's import of services will reach about 1 trillion USD, 1.4 times that of the US, accounting for 14.1% of the total global imports of services, up from 9.4% in 2018, making China the world's largest service importer.

In 2018, China's trade in services accounted for only 14.7% of its total trade (National Bureau of Statistics of the P.R.C., 2019), about 9 percentage points lower than the global average. Trade in services accounted for 5.8% of its GDP, 7.3 percentage points lower than the global average (WTO, 2018). To evolve from a large trade country to become a strong trade power, trade in services has been lagging behind and should be a priority of China's economic development.

Constructing the Hainan FTP with trade in services is evidenced by development experiences of internationally known free trade ports. The Hong Kong free trade port has experienced four development stages: transit trade, processing trade, comprehensive trade, and trans-regional comprehensive trade (Chen et al., 2015; Cui, 2019). Singapore's free trade port has evolved from an emphasis on transit trade to more comprehensive functions. From 2005 to 2017, Singapore's trade in services increased from 19.2% to 32.4% of its total trade; and the share of its services trade as part of its

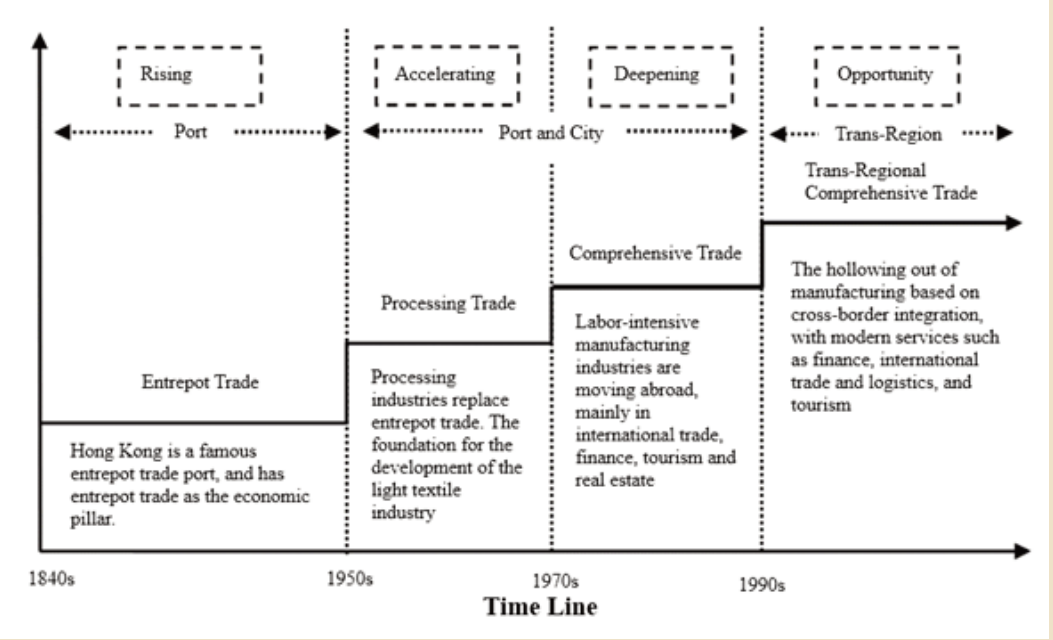
GDP rose from 80% to 104% (calculated from UNCTAD, 2018). This shows that, at the initial stage, the overwhelming majority of free trade ports start mainly with transit trade or processing trade. As these ports develop, most of them are transformed and upgraded to assume more comprehensive functions with trade in services as their main trade content.

FIGURE 9.4: **The Author's Estimation of Services Imports of China and the United States during China's '14th Five-Year Plan' Period, based on the past five years (2013-2018)**



Source: National Bureau of Statistics of the P.R.C. (2019.)

FIGURE 9.5: **The Evolution of Hong Kong's Free Trade Port**



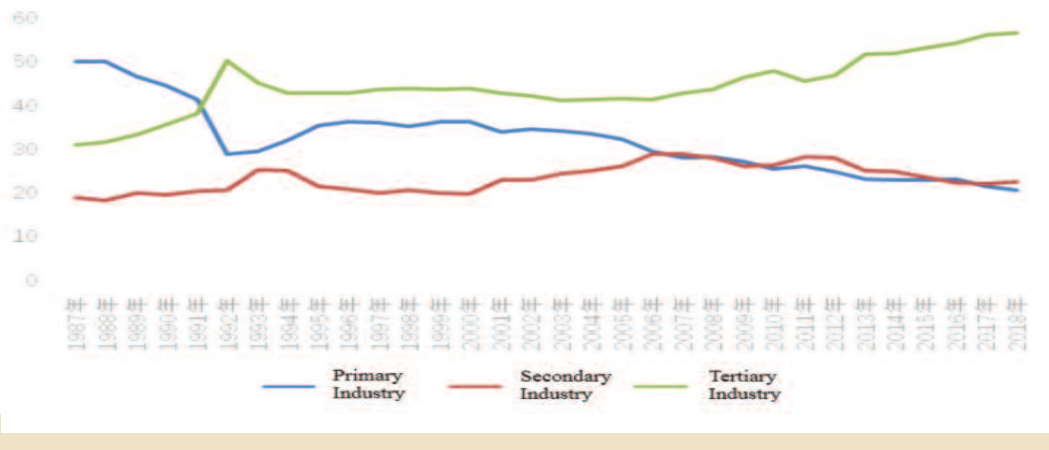
Source: Chen et al. (2015).

Constructing the Hainan FTP with trade in services as the leading driver is in line with Hainan FTP's industrial development orientation. Construction of the Hainan FTP should uphold Chinese characteristics and conform to Hainan's development orientation while learning from the experience of internationally known free trade ports (Fan, 2019; Zhu, 2019). It will not assume transit trade and processing trade as the priorities, but should develop tourism, modern service industries, and high and new technology industries as its leading sectors. Hainan has well known tourism features and resources (Dan, 2019). Taking trade in services as the main development driver not only conforms to the national strategic need, but also is a logical choice for Hainan as an island economy. Judging from the current situation, Hainan has established the conditions to launch major initiatives in opening up its service market and implementing innovations in the development of its trade in services so as to cultivate its unique advantages (Chi, 2019a, 2019b).

HAINAN'S ROLE IN INNOVATING THE DEVELOPMENT SERVICES TRADE

Figure 9.6 shows that from 1988 to 2018, the share of value-added of Hainan's service sector in its GDP had increased from 31.6% to 56.6%, with the share rising at an average annual rate of 0.83 percentage points. In 2018, Hainan's service sector accounted for 56.6% of its GDP and contributed 66.9% to economic growth, respectively 4.4 percentage points and 7.2 percentage points higher than the national averages (Chi, 2019c). In the same year, Hainan's trade in services accounted for 18.1% of its total trade, 3.4 percentage points higher than the national average. However, compared with other

FIGURE 9.6: **Changes in Hainan's Industrial Structure, 1987-2018 (%)**



Source: National Bureau of Statistics of the P.R.C. (2018, 2019).

free trade ports such as Hong Kong and Singapore, there is still a large gap. According to preliminary estimates, if the service market opening policy is implemented effectively, the annual volume of Hainan's trade in services will reach about 200 billion Yuan by 2025, accounting for about 15% of its GDP, up from the current 3%.

The potential for development of the service sectors in the Pan-South China Sea region is large. As a relatively independent geographical unit, Hainan is well-positioned to take the first step in opening up service sectors such as tourism, medical and health care, finance and insurance, culture and entertainment, shipping and logistics, and duty-free shopping, for example. In addition, its geographic location at the centre of the Pan-South China Sea region and on the edge of the Chinese mainland provides it with a strategic advantage. It can rapidly develop its trade in services while promoting economic cooperation in the Pan-South China Sea region. Take tourism, for example. In 2017, countries and regions in the Pan-South China Sea region received 250 million international tourists, accounting for 18.6% of the global total of 1.341 billion; the Pan-South China Sea region generated 338.274 billion USD in international tourism revenue, accounting for 22.2% of the world's international tourism revenue (1.526 trillion USD; calculated from World Bank, 2019). From 2012 to 2017, the number of international tourists and the revenue from international tourism in the Pan-South China Sea region had grown at an average annual rate of 6% and 5.4%, respectively. If the growth rate is maintained in the next five years, the number of international tourists in the Pan-South China Sea region will reach 334 million by 2022 and international tourism revenue will reach 440 billion USD.

HAINAN HAS BEEN LEADING the country in the opening up of service sectors such as medical and health care, tourism, and others. For example, Hainan's Boao Lecheng International Medical Tourism Pilot Zone is implementing the most open medical and health policies in China.

At present, Hainan has started implementing the special management measures for foreign investment access practiced in China's pilot free trade zones (Chi, 2018). The total number of restrictive measures (including those pertaining to the service sector) in the latest version of the list is only 37, but 28 of them are related to the service sector (calculated from National Development and Reform Commission & Ministry of Commerce of the P.R.C., 2019). Despite this, Hainan has been leading the country in the opening up of service sectors such as medical and health care, tourism, and others. For example, Hainan's Boao Lecheng International Medical Tourism Pilot Zone is implementing the most open medical and health policies in China, lifting restrictions on foreign equity in health insurance and life insurance companies. Based on patient commitment filing, patients of the medical institutions in the pilot zone are conditionally allowed to leave with reasonable amounts of imported medicines for their own use. The pilot zone is also conditionally permitted to import and use special medical food

products that are being used in foreign markets but have not yet been permitted to enter China's market. In terms of opening up the tourism market, Hainan has implemented an offshore duty-free shopping policy for national passengers and a visa-free policy for tourists from 59 countries.

TABLE 9.1: **2017 'Pan-South China Sea Tourism Economic Cooperation Circle' Tourism Status**

Country/ Region	Number of Inbound Tourists (10,000)	International Tourism Revenue (100M USD)	Country/ Region	Number of Inbound Tourists (10,000)	International Tourism Revenue (100M USD)
Hainan	119.4	6.81	**Myanmar**	344.3	22.8
Guangxi	562.3	27.8	**Malaysia**	2594.8	183.5
Guangdong	3645.5	195.6	**Singapore**	1390.3	197
Fujian	292.9	75.9	**Indonesia**	1404	141.1
Hong Kong	2788.4	380.4	**Brunei**	25.9	1.8
Macao	1725.5	357.2	**Philippines**	662.1	83.5
Taiwan	1074.0	123.2	**East Timor**	7.4	0.73
Vietnam	1292.2	88.9	**Australia**	881.5	493.8
Laos	325.7	7.9	**India**	1554.3	278.8
Cambodia	560.2	40.2	**Bangladesh**	12.5	3.4
Thailand	3559.2	621.6	**Sri Lanka**	211.6	50.8

Data Sources: Data of China's mainland provinces are from their statistical yearbooks; data of Taiwan are from China Statistical Yearbook 2017 (National Bureau of Statistics the P.R.C., 2017); other countries' and regions' data on international arrivals and international tourism income are from the World Bank (2019).

EARLY-HARVEST PROJECTS FOR OPENING UP HAINAN'S SERVICE SECTORS

To solve the problem of short supply of international products and services in Hainan, a practical solution is to comprehensively introduce Hong Kong's industry and supply chains for its tourism consumption and to harmonize the standards of tourist shopping services and market regulation between Hainan and Hong Kong, thus transforming and upgrading Hainan's relevant service industries such as culture and entertainment, finance and insurance, and logistics.

For a long time, Hainan has been faced with a contradiction between rapidly growing demand for internationalized and personalized service consumption, and the serious shortage of international product supply and the poor quality of international services (Chi, 2018; Fu et al., 2018). One of the causes is that the cultural and entertainment industry development has been lagging far behind. In 2018, the added value of the cultural industry in Hainan accounted for only 3.3% of its GDP, 1 percentage point lower than the national average (Statistical Bureau of Hainan Province & Survey Office of National Bureau of Statistics in Hainan, 2019). To improve the internationalization level of Hainan's tourism and enhance its competitiveness, the key lies in opening up its culture, sports, entertainment, and creativity markets. It is suggested that an action plan be issued as soon as possible to clearly announce that, from 2020, restrictions over the proportion of foreign equity in culture, sports, and entertainment enterprises will be abolished, thereby creating an 'early harvest' in integrating the development of culture and entertainment with that of tourism, and to promote the rapid development of modern service industries in Hainan.

One of Hainan's challenges is its educational development. In 2017, 82.7% of the employed population of Taiwan has a high school diploma or above, while in Hainan this figure was only 22.6% in 2018. In 2018, the number of those who received their doctoral, master's, and bachelor's degrees in this period was 38, 1,488, and 24,856 respectively in Hainan, accounting for only 1.1%, 2.7%, and 10.8% of those in Taiwan respectively (Hainan Statistical Yearbook, 2019; Taiwan Statistical Yearbook, 2018). These figures for Hainan were also far lower than China's national averages. As an island aiming for a higher level of opening up in the services especially, Hainan is in a good position to make 'early arrangements' for expanding the opening up of its education market. For example, under the premise of strict supervision, qualified overseas capital can be allowed into the island to build and run independent schools in higher education, regular senior high schools, and kindergartens. This will speed up the production of mid- to high-end practical and service-oriented professionals for the construction of the free trade port.

Although there is a growing demand for Hainan's medical and health services from both Hainan residents and those outside the province, there is an obvious gap between the level of Hainan's medical and health services and that of other developed provinces

in China. For example, Hainan's medical and health industry accounted for 2.8% of its GDP in 2018, not only lower than the national average of around 7%, but also much lower than the average 10% of the developed countries and regions (Zhiyan Consultation Group, 2017; calculation based on Hainan Statistical Yearbook, 2019, and China's National Statistical Yearbook, 2019). Although there have been significant improvements in recent years, the difference is still significant. At present, opening up the medical and health care industry will have a large, existing local market. It is likely that Hainan will be able to open up the medical and health care market thanks to the accelerated construction of a free trade port. It is suggested that, while building Boao Lecheng International Medical Tourism Pilot Zone into an 'international medical valley', implementation of some of the policies designed for this zone should be gradually extended to the whole province. This includes the availability of capital, personnel, and technologies of the medical and health care industry.

Promoting integration of emerging technologies such as big data, blockchain, and cloud platforms with traditional industries by opening up new and high technological industries will not only play an important role in raising the level of Hainan's industrial development but also contribute to the opening up of other sectors. At the moment, the development of Hainan's new and high-tech industries has lagged behind that in other regions of China. In 2017, the added value of Hainan's new and high-tech industries was only 21.23 billion Yuan, less than 3% of that of Shenzhen (Tang & Zheng, 2019). To seize new opportunities out of the new round of industrial transformation and scientific and technological revolutions, Hainan can achieve early returns in building itself into a 'Smart Island' (Desogus et al., 2019; Priano et al., 2019). For example, Hainan can establish a national laboratory of blockchain technology in order to support the establishment of internationally known IT enterprises in the Hainan Eco-software Park to study and develop applications of blockchain technology.

PROMOTING INTEGRATION OF emerging technologies such as big data, blockchain, and cloud platforms with traditional industries by opening up new and high technological industries will not only play an important role in raising the level of Hainan's industrial development but also contribute to the opening up of other sectors.

There are two priorities in pursuing zero tariff policies. First, raw materials and equipment needed for the development of service industries such as medical and health care, culture and entertainment, tourism, education, R&D (research and development), and MICE (Meetings, Incentives, Conferences/Conventions, Exhibitions and Events) should be imported with zero tariffs and exempted from import value-added tax. Second, 'zero tariff' policies should be pursued in key industries related to people's livelihoods. For example, anti-cancer drugs and medical devices for cancer treatment which have come into foreign markets but are not yet registered in China should be imported with no tariffs. Moreover, the number of drugs applicable to 'zero tariff' policies should be increased.

Buddhist Park on the island of Sanya is a centre of culture and religion. Hainan has implemented a visa-free policy for tourists from 59 countries.

Although the prevention of smuggling is still an important task of Hainan's customs supervision, along with the global pursuit of 'zero tariff' policies it has become more important for Hainan to effectively manage the relationship between Hainan and the mainland; to prevent imported risks from industrial opening up, especially from comprehensively opening up service markets such as the financial market; and to prevent economic, political, social, and other security risks as the island continues to open up. As a relatively independent geographic unit and with modern technological regulatory tools at its disposal, Hainan has the ability and conditions to minimize the risk of implementing a 'zero tariff' policy.

Based on past experience, the key to best utilizing professionals' specialized skill sets lies in talent management system innovation. For example, could Hainan explore a classified management system for administrative officers and civil servants, offering the latter market-oriented remuneration packages in accordance with international standards? With the exception of the Party and government departments, the established personnel management system for all employees of public institutions and social organizations could be abolished, and an engagement system fully implemented. This would help break the traditional pattern of administrative and closed talent management and establish one that is professional and open, making Hainan more competitive to attract and retain the most highly talented labour force.

To that end, favourable policies to attract talent are needed. For example, to change the relatively backward status of Hainan's education, medical care, and high-tech industries as quickly as possible, Hainan could lead the way in adjusting tax policies. It is suggested that, from 2020, the personal comprehensive income tax rate for professionals working in Hainan's medical, education, high-tech, and other industries be reduced to about 10%, from the highest level of 45% in the current progressive tax rates. For comprehensive income earned in Hainan by newly recruited high-level professionals in the medical, education, high-tech, and other industries, an even lower individual income tax could be implemented for a specified period of time.

Shortly after Hainan became a province, it attracted 100,000 professionals from the mainland to overcome a talent shortage. This was possible because of an encouraging environment for creativity and entrepreneurship at that time. Today, to construct the Hainan FTP, such an environment for professionals to fully display their talents is needed. In order to do so, firstly, multiple types of platforms for attracting professionals from both home and abroad need to be established. Such platforms include creating autonomous statutory bodies with the authority to establish internal mechanisms for recruitment and remuneration strategies. Secondly, a favourable environment for innovation and entrepreneurship needs to be created, giving scientific researchers full autonomy, encouraging higher learning institutions, research institutes, and enterprises to stimulate scientific and technological innovation by offering stock options and dividend incentives. Thirdly, a positive employment environment and services for international professionals should be established and continuously improved upon. These include setting up immigration offices to ensure provision of such services as housing, medical/health care, and children's education services; and opening up the employment market for foreign labour such as Filipino domestic workers to deliver housekeeping services to families in the mid- to high-income bracket from both home and abroad.

INTERNATIONAL STANDARDS for service management need to be implemented by benchmarking service management standards in tourism, accounting, legal consulting, education services, and financial services similar to those practiced in developed countries such as the United States, the European Union, Japan, and Singapore.

Harmonizing services standards to lower the barriers to services trade is conducive to achieving some 'early harvest' projects. For example, Hainan could introduce and adopt Japanese and other countries' medical and drug management standards. Medicines and medical devices that have been approved by authorities in Japan could make it to market in Hainan without the obligation of conducting further local clinical trials.

International standards for service management need to be implemented by benchmarking service management standards in tourism, accounting, legal consulting, education services, and financial services similar to those practiced in developed countries

such as the United States, the European Union, Japan, and Singapore. Service enterprises and professionals from these countries who meet local requirements should be allowed to start their businesses in Hainan after passing examinations and filing the necessary paperwork. A list of differentiated market behaviour liability exemptions should be created. As long as national security is ensured, overseas enterprises should be allowed to provide services at a minimal cost. This includes advancing standard certification in service sectors such as tourism, education, healthcare and medical treatment, culture and entertainment, and finance. Enterprises registered in Hainan or certified by international associations would be prioritized and offered tax reductions and exemptions.

BREAKING THE CONTRADICTION between the current system and policies, giving full authorization to Hainan, is a way forward in reaching the goal of building Hainan into an international tourism consumption centre with world influence.

Government procurement needs to be more transparent and allow international bidding. For example, relevant articles of the WTO's Agreement on Government Procurement should be implemented. The principles of transparency, predictability, and non-discrimination should be adhered to. A negative-list management model for government procurement should be adopted. Except for those related to government information system security, government procurement of all services already open to public institutions should also be open to social organizations; government procurement of all the other products already open to state-owned enterprises should also be open to other domestic and foreign enterprises and social organizations.

In the 32 years since Hainan became a province and a special economic zone, the central government has granted Hainan some special policies, which have not been truly implemented. Part of the reason is Hainan's inadequate ability to implement these policies. But a more important reason is dissonance between the system and policies, which has remained a prominent contradiction. For example, subject to the current fiscal and taxation relationship between the central and local governments, expected effects of the offshore duty-free shopping policy are far from being realized, even though it has been implemented for many years. Breaking the contradiction between the current system and policies, giving full authorization to Hainan is a way forward in reaching the goal of building Hainan into an international tourism consumption centre with world influence.

Economic autonomy granted to Hainan would include the FTP's special local legislative power, autonomy in foreign economic cooperation, autonomy in economic policymaking, and compatible administrative power. The nature of the FTP's economic autonomy would consist of special economic rights granted by the central government to Hainan, which should be broader in scope than those granted to other provinces.

Sanya City in Hainan Province, China. Full economic autonomy can be granted to Hainan in a step-by-step approach. The first step would be to grant Hainan a certain degree of fiscal and taxation autonomy.

These special rights constitute a significant condition for solving the contradiction between the system and FTP construction policies, providing an important guarantee for coordinating the relations between relevant departments of the central government and Hainan and a base for Hainan FTP legislation.

Certain fiscal and taxation autonomy is also important. First, it is proposed that Hainan be authorized to streamline and simplify the FTP's taxation system by suspending and merging some taxes and adjusting the scope of some tax to form a simple tax system with corporate income tax, individual income tax, environmental protection tax, sales tax, and stamp tax as the main categories. Second, it is proposed that Hainan be authorized to implement a corporate income tax rate of around 10% in order to enhance its attraction to capital and technology from home and abroad and to allow tourism, modern services, and new and high-tech industries to be exempted from corporate income tax for a certain period of time. Third, as noted above, it is suggested that Hainan be authorized, in accordance with the needs of attracting top professionals from home and abroad, to implement a personal income tax rate of around 10% for employees in some of the tourism, modern services, and new and high-tech industries.

Full economic autonomy can be granted to Hainan in a step-by-step approach. The first step would be to grant Hainan a certain degree of fiscal and taxation autonomy. The goal of the FTP's fiscal and taxation system innovation is to form a relatively

independent fiscal and taxation system, which should stipulate the FTP's autonomy in establishing and eliminating tax categories, adjusting tax rates, reducing and exempting taxes, and autonomously handling other taxation issues. To announce this goal first is crucial to building confidence in the Hainan FTP. Secondly, it is proposed to establish the Hainan FTP as a customs special surveillance zone, announce it as a separate customs zone when conditions are ripe, and then authorize the FTP to join WTO and other international economic and trade cooperation organizations under the name of 'Hainan of China', and to sign economic and trade cooperation agreements. The economic autonomy granted by the central government to the Hainan FPT extends only to the right of representation, and not at all the power to make treaties. Granting Hainan FTP status for a separate customs zone will be an important measure for "building Hainan into an important gateway for opening up toward the Pacific and the Indian oceans" (Government of China, 2020).

CONCLUSION

Hainan's development as an island economy in the past 32 years has shown that, when steps to reform and opening up are larger, development is faster. In the first few years after Hainan became a province and a special economic zone, it began to march towards a significant opening up to the outside world. Hainan's GDP growth rate reached 41.5% for the year 1992 (calculated from Statistical Yearbook of Hainan, 2019). Within the first few years, Hainan achieved the goal of reaching the national average development level. In only seven years, from 2010 to 2017, when Hainan was announced as an international tourism destination, Hainan's annual GDP expanded from slightly over 200 billion Yuan to more than 460 billion Yuan, driven by the strategy of advancing industrial upgrading by industrial opening up. In the most recent stage of development, the overall requirement for constructing the Hainan FTP is pursuing opening up to the highest level in the world to promote further development of the region with a wider scope and a higher level of opening up.

IN ONLY SEVEN YEARS, from 2010 to 2017, when Hainan was announced as an international tourism destination, Hainan's annual GDP expanded from slightly over 200 billion Yuan to more than 460 billion Yuan.

For an island economy, there is no way to succeed without being a 'more open' economy. By opening up to the outside world, an island economy can overcome its vulnerabilities such as limited resources, relatively inconvenient transportation, a limited range of industries, and small markets, and can enable various factors such as material, people, and capital to flow more freely and efficiently, thus generating internal impetus for reform and cultivating a driving force for pushing forward economic and social development.

On one hand, island economies should seize opportunities of investment and consumption potential brought by the opening up of global service markets and innovative development of trade in services to promote the free and efficient flow of factors such as people, intellectual and financial capital, and information, and accelerate their industrial transformation and upgrading so as to unleash new drivers for development. On the other hand, as has been the case with other island economies such as Singapore, Hong Kong, and Taiwan, Hainan should pursue a service-sector-driven economic development model based on its own characteristics and development structure. This is important because island economies and physical environments can be fragile and often do not follow the traditional industrialization path associated with mainland economies. In short, island economies should consolidate their relatively specialized industrial structure through opening up their service markets.

From the vantage point of studying the development trajectories of successful island economies—be they independent states, subnational island jurisdictions, or separate customs zones — it is clear that they all have a higher degree of economic and social autonomy associated with governance granted by the central government, as well as special legislation that allows for different policies and institutions from other areas under the jurisdiction of the central government (Fu, 2019). Based on Hainan's historical experience and future development direction, only through full economic autonomy and a combination of opening-up policies and systems can Hainan truly realize its tremendous potential for development. The implication for island economies is that they should fully draw on their international experience and connections, have full jurisdictional autonomy, and implement more open and flexible policies and institutions to fully transform their dependence on external resources into an institutional open network.

REFERENCES

Chen, H., Meng, G., Gao, Y., Yang, S., & Shao, Q. (2015). Development model, motivational mechanism and enlightenments of Hong Kong Freeport. *Tropical Geography, 35*(1),76.

Chi, F. (2019a). *Hot land for opening-up—speeding up the process of exploring for construction of the Hainan FTP* (pp. 121-122). Beijing: China Workers Publishing House.

Chi, F. (2019b). *New type of large open country–China's choice in jointly building an open world economy* (pp. 229-230). Beijing: China Workers Publishing House.

Chi, F. (2019c). Preliminary thoughts on building Hainan free trade port with Chinese characteristics. *Reform, 4*, 27-38.

Chi, F. (2018). From the FTZ to FTP. *Maritime China, 11*, 32-36.

Cui, F. (2019). The development experience and insight of the three free trade ports in the world. *Frontiers, 22*, 48-53, 158.

Dan, J. (2019). *Research on tourism real estate development in Hainan under the construction of pilot Free Trade Zone (Port)*. Proceedings of the 2019 2nd International Conference on Education, Economics and Social Science (ICEESS 2019).

Desogus, G., Mistretta, P., & Garau, C. (2019). Smart islands: A systematic review on urban policies and smart governance. In S. Misra et al. (Eds.). *International conference on computational science and its applications* (pp. 137-151). Cham, Switzerland: Springer.

Fan, H. (2019). China's development of free trade ports by drawing on international experience, *Prices Monthly, 11*, 57-62.

Fu, Z., Wang, H., & Shi X. (2018). Explore the construction of a free trade port with Chinese characteristics. *China Ports, 5*, 1-3.

Fu, Z. (2019). Advancing construction of Hainan FTP with experience of island economies in institutional opening up. *Hainan Daily.* Retrieved from http://hnrb.hinews.cn/html/2019-06/19/content_6_1.htm

Government of China.(2020). Guideline of the CPC Central Committee and the State Council on supporting Hainan to deepen reform and opening-up in an all-round way, April. Retrieved from http://www.gov.cn/zhengce/2018-04/14/content_5282456.htm

Ma, Y.Y. (2019). Services liberalization and global value chains: Participation and position. *Journal of International Trade, 7*, 113-127.

National Bureau of Statistics of the People's Republic of China. (2019, 2018, 2017). Retrieved from http://www.stats.gov.cn

National Development and Reform Commission & Ministry of Commerce of the People's Republic of China. (2019). *Special management measures (negative list) for foreign investment in pilot free trade zones*. Retrieved from http://english.mofcom.gov.cn/article/policyrelease/announcement/201907/20190702882754.shtml

Priano, F. H., Armas, R. L., & Guerra, C. F. (2016). A model for the smart development of island territories. In Y. Kim and M. Liu (Eds.). *Proceedings of the 17th international digital government research conference on digital government research in Shanghai, China* (pp. 465-474). New York: Association for Computing Machinery.

Statistical Bureau of Hainan Province & Survey Office of National Bureau of Statistics in Hainan. (2019). *Hainan statistical yearbook.* Retrieved from https://www.chinayearbooks.com/tags/hainan-statistical-yearbook

Taiwan Statistical Yearbook. (2018). Retrieved from https://eng.stat.gov.tw/lp.asp?ctNode=2815&CtUnit=1072&BaseDSD=36

Tang, H., & Zheng, C. (2019). *Plan before acting: An exploration of development model for high and new tech industries in Hainan.* PWC Strategy. Retrieved from https://www.strategyand.pwc.com/cn/zh/reports/2019/development-model-for-hainan-cn.pdf

UNCTAD. (2019). Statistical database. Retrieved from https://unctadstat.unctad.org/wds/TableViewer/tableView.aspx

World Bank. (2019). World Bank Open Data. Retrieved from https://data.worldbank.org.cn/

WTO. (2018, 2019). World Trade Report 2019: The future of services trade. Retrieved from https://www.wto.org/

WTO FTA. (2019). Regional trade agreements database. Retrieved from http://rtais.wto.org/UI/PublicMaintainRTAHome.aspx

Yuan F., Zhang P., Liu X., & Nan, Y. (2016). Growth leap: Service-oriented economic structure, knowledge process and efficiency mode remodeling. *Economic Research Journal, 51*(10), 12-26.

Zhu, Y.M. (2019). Research on promoting the construction of the free trade port policy system with Chinese characteristics. *Prices Monthly, 11*, 63-68.

Dongyu Islet, home to the permanent venue for Boao Forum for Asia; photo by Li Xiaogang.

Conclusions:

The future of Island Studies and Hainan

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The last several years have seen increased attention paid to island issues and a growth in the number of organizations and individuals researching island topics. Many of these issues directly affect the well-being of islanders, including sea-level rise brought on by climate change, more intense and frequent extreme events such as hurricanes and tsunamis, degradation of marine and terrestrial ecosystems, and fewer opportunities for meaningful employment for our youth. Given that there are at least 600 million islanders throughout the world, we should not underestimate the importance of these issues. However, the economic, social, and environmental changes taking place on islands are also meaningful for mainland populations and places.

THE RELEVANCE OF ISLANDS

One example of this broader role of islands is with respect to the development of creative forms of governance. While in some circumstances, islands have been pawns in a larger chess match carried out by superpowers, they have also shown a political nimbleness in negotiating aid and investment. Some researchers have described the constant state of negotiations with other states and metropole governments as a new form of 'Islandian' governance (Korson, 2018; Prinsen & Blaise, 2017; Prinsen, Lafoy, & Migozzi, 2017). This political entrepreneurship has also been extended to the economy. Despite the failure of some 'get rich quick' schemes, including selling citizenship, money laundering, and trading away limited natural resources with little long-term return, many islands have been able to harness their assets to improve the quality of life of their citizens. Referred to as the resourcefulness of jurisdiction, there are numerous examples where island businesses have succeeded, perhaps because of their small size, remote location, and lack of power, rather than in spite of these characteristics (Baldacchino & Bertram, 2009).

GIVEN THE EARLY ONSET AND the severity of climate change consequences, islands may be harbingers of the future facing other coastal communities. Adaptation and other coping strategies adopted by islands, including integrating traditional knowledge with science, building alliances, and incorporating a transnational mobility, may be transferable to other places.

Much has been written about the challenges facing islands, and especially low-lying coral atolls, as a result of climate change and sea-level rise. Given the early onset and the severity of climate change consequences, islands may be harbingers of the future facing other coastal communities. Adaptation and other coping strategies adopted by islands, including integrating traditional knowledge with science, building alliances, and incorporating a transnational mobility, may be transferable to other places (Finucane & Keener, 2015; Kelman & Khan, 2013).

Islands have also been at the forefront as biodiversity hotspots, being home to 20% of the world's plant and vertebrate species, including many endemic species (Courchamp et al., 2014; Habel et al., 2019). Unfortunately, conservation and preservation efforts on islands rarely receive the same level of attention and funding as is the case at other mainland locations. The tragedy of this situation is that many organisms being lost will no longer be available for use as traditional medicines and future pharmaceuticals (Arrieta, Arnaud-Haond, & Duarte, 2010; Hunt & Vincent, 2006).

One of the challenges that have always faced islanders has been the impact of encounters with newcomers or outsiders. Although these encounters have brought with them opportunities for education and trade, many have also brought genocide, subjugation, and powerlessness. Island societies have often been seen through the filter of

a rigid social class hierarchy, where the 'discoverer' was superior and the islander was mistakenly considered to be ignorant, simple, or savage (Jolly, 2007). Although this marginalization of islanders is changing, it is still apparent in the portrayal of islanders in film and television. If mainland governments and mainland visitors want to develop meaningful relationships with islanders and their governments, they need to be aware of the cultural baggage they may be bringing to their encounters. One of the shared features of small islands is their high degree of social cohesion. This is reflected in strong and dense informal social networks, a high degree of volunteerism and civic participation, and resilience in the face of external threats. The integration of culture and economy, mediated by stable governance, may provide lessons to other jurisdictions seeking to find their way in a globalized world (Baldacchino, 2005; Baldacchino, Greenwood, & Felt, 2009).

ONE OF THE SHARED FEATURES of small islands is their high degree of social cohesion. This is reflected in strong and dense informal social networks, a high degree of volunteerism and civic participation, and resilience in the face of external threats.

THE INSTITUTIONS OF ISLAND STUDIES

The interdisciplinary field of Island Studies has been emerging and growing for the past twenty-five years (Grydehøj, 2017; Randall, 2020; Stratford, 2008). It is represented in the form of supranational and non-profit organizations such as the Alliance of Small Island States as well as academic postgraduate programs at universities, research centres, and institutes. Some of these programs and centres focus on specific regions or issues such as biodiversity, renewable energy, sustainability, and development. Examples include the University of Exeter's Master of Science in Island Biodiversity and Conservation on Jersey, and the Center for Pacific Island Studies at the University of Hawai'i at Mānoa. A smaller number of centres are taking a more broadly based, interdisciplinary approach, with the two most prominent examples being the University of Prince Edward Island's (Canada) Institute of Island Studies (IIS) and the University of Malta's Islands and Small States Institute (ISSI), both of which recently celebrated thirty years of existence. Not only do their mandates incorporate education and research, but they also participate in local and global engagement, where the activities at one scale add value at other scales. The number of these comprehensive Island Studies clusters is growing, including at University of the Ryukyus' Research Institute for Islands and Sustainability (RIIS) in Okinawa, Japan, and the University of the Highlands and Islands in Scotland. It is hoped that with the continued foresight of the Hainan Foreign Affairs Department and various local partners, Hainan will join this growing list and take a leadership role in Island Studies internationally.

REFERENCES

Arrieta, J.M., Arnaud-Haond, S., & Duarte, C.M. (2010). What lies underneath: Conserving the oceans' genetic resources. *Proceedings of the National Academy of Sciences, 107*(43), 18318-18324.

Baldacchino, G. (2005). The contribution of 'social capital' to economic growth: Lessons from island jurisdictions. *The Round Table, 94*(378), 31-46.

Baldacchino, G., & Bertram, G. (2009). The beak of the finch: Insights into the economic development of small economies. *The Round Table, 98*(401), 141-160.

Baldacchino, G., Greenwood, R., & Felt, L. (2009). *Remote control: Governance lessons for and from small, insular, and remote regions.* St. John's, NL: Institute of Social and Economic Research.

Courchamp, F., Hoffmann, B.D., Russell, J.C., Leclerc, C., & Bellard, C. (2014). Climate change, sea-level rise, and conservation: Keeping island biodiversity afloat. *Trends in Ecology & Evolution, 29*(3), 127-130.

Finucane, M.L., & Keener, V.W. (2015). Understanding the climate-sensitive decisions and information needs of island communities. *Journal of the Indian Ocean Region, 11*(1), 110-120.

Grydehøj, A. (2017). A future of island studies. *Island Studies Journal, 12*(1), 3-16.

Habel, J.C., Rasche, L., Schneider, U.A., Engler, J.O., Schmid, E., Rödder, D., Meyer, S.T., Trapp, N., Sos del Diego, R., Eggermont, H., Lens, L., & Stork, N.E. (2019). Final countdown for biodiversity hotspots. *Conservation Letters, 12*(6), e12668.

Hunt, B., & Vincent, A.C.J. (2006). Scale and sustainability of marine bioprospecting for pharmaceuticals. *AMBIO: A Journal of the Human Environment, 35*(2), 57-64.

Jolly, M. (2007). Imagining Oceania: Indigenous and foreign representations of a sea of islands. *The Contemporary Pacific, 19*(2), 508-545.

Kelman, I., & Khan, S. (2013). Progressive climate change and disasters: Island perspectives. *Natural Hazards, 69*(1), 1131-1136.

Korson, C. (2018). (Re)balancing inequality through citizenship, voter eligibility and islandian sovereignty in Kanaky/New Caledonia. *Geopolitics.* Retrieved from https://doi.org/10.1080/14650045.2018.1543270

Prinsen, G., & Blaise, S. (2017). An emerging 'islandian' sovereignty of non-self-governing islands. *International Journal, 72*(1), 56-78.

Prinsen, G., Lafoy, Y., & Migozzi, J. (2017). Showcasing the sovereignty of non-self-governing islands: New Caledonia. *Asia Pacific Viewpoint, 58*(3), 331-346.

Randall, J.E. (2020, forthcoming). Island studies inside (and outside) of the academy: The state of this interdisciplinary field. In Ginoza, A. (Ed.). *The Challenges of Island Studies.* London, UK: Springer.

Stratford, E. (2008). Islandness and struggles over development: A Tasmanian case study. *Political Geography, 27*(2), 160-175.

The theme of this Annual Report as well as the 2019 21st Century Maritime Silk Road Islands Economic Cooperation Forum was to examine the role of international tourism and intermediary or producer services more generally for the sustainable development of islands. Given that Hainan is striving to become a centre for tourism and services with a global reach, this is a critically important local issue. Even with the recent concerns about health and travel, it is anticipated that international tourism and services will continue to be among the fastest-growing economic sectors, and will be especially important for islands. The significance of tourism and services is not just economic; there are also cultural, environmental, and political dimensions that are addressed in this edited collection with contributions by some of the leading Island Studies researchers.

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