

# The Untrodden Route to Resilience for Small Island Developing States

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## Abstract

This paper examines the broad practical and theoretical research behind a book due for publication in early 2021 entitled 'Beyond the Blue Economy: Creative Economies and Sustainable Development in Small island developing States'.

It highlights some of the challenges of delivering the blue economy in the real world and the role that the digital-creative industries can play in supporting that goal, broadening the economic bases of island nations and thereby building resilience to the kind of external shocks we are now experiencing.

This paper seek to make a clear argument for the digital-creative industries being central to a more sustainable economy for small island developing states (SIDS), both in terms of the specifics of developing creative, knowledge-based economies but also understanding the impact that a strong creative sector has on innovation and entrepreneurship across all sections of industry, society and culture.

**Keywords:** Creative, Sustainable, SIDS, Economies, Oceans

## Introduction

This paper sets out the broad research and thinking behind a book I am currently writing for Routledge entitled 'Beyond the Blue Economy: Creative Economies and Sustainable Development in Small Island Developing States'. It is due for publication early next year and whilst I've felt for some time that the concepts and proposals I'm putting forward are essential for these island regions, the events of 2020 have given the research an even greater emphasis.

The book sets out to examine the potential for the creative and cultural industries to play a key role in the sustainable development of small island developing states and to suggest a practical, theoretical and policy framework for achieving this. The book is framed by the notion that working towards the United Nations Sustainable Development Goals (SDG's) during this 'decade of action' requires a far more inclusive, multilateral and cross sector approach than we have seen so far, in terms of policy, strategy, theory and most crucially, implementation.

It seeks to position the digital-creative industries as central to a more sustainable economy for small island developing states (SIDS), both in terms of the specifics of developing creative economies but also understanding the impact that a strong creative sector has on innovation and entrepreneurship across all sections of industry, society and culture.

## Background to the research

I've spent 30 years working in and around the creative industries, mainly in the film and television sectors, for the major Hollywood studios, as an independent writer and producer, as the co-founder of my own production company and as a teacher and academic. For the last ten years however, my focus has been on the support and development of young creative entrepreneurs, in the UK and internationally. In 2014 I was invited to St Lucia to be a judge at a small youth film festival and in the following years to work with young filmmakers and creators in the Eastern Caribbean region.

That sparked a personal research project around how the digital-creative industries could help build more sustainable, broader-based economies in these small island communities that rely so heavily on tourism and the oceans – the Blue Economy. I wanted to look beyond that to see how small island developing states could create a digital, creative, and knowledge-based economy that could support and take the pressure off the exploitation of the oceans, but also then be a driver of collaborative innovation across the whole of their economies.

However, whilst this research has been conducted now for over a decade, it has come into sharp focus in the early months of 2020. I am at home writing this at the height of the COVID 19 pandemic, watching the impact on lives, jobs and economies round the world. For SIDS, this impact is devastating, with the collapse of the international tourism market signalling the worst global recession in history and a catastrophic effect on national GDP.

On average, the tourism sector accounts for almost 30% of the Gross Domestic Product (GDP) of small island states. However, this share rises to over 50% for countries such as the Maldives and Seychelles (WTTC, 2019). It is expected that for many SIDS, the COVID-19 pandemic will result in record amounts of revenue losses, with a consequent negative impact on the ability to service external debt and secure necessary imports (UNCTAD, 2020).

The need to broaden the economies of SIDS, to look to new and hitherto untapped and unexplored sources of growth and innovation has never been more urgent. In imagining what our post-COVID world will look like, what the 'new normal' might be, looking beyond the all-pervasive narrative of the Blue Economy is going to be a challenge but one that is essential if we are going to avoid a repeat of the hardships of 2020.

I don't want to go into the concepts of the Blue Economy here as it will, I'm sure, be very familiar to readers of this journal. I do however want to touch on a couple of areas that have become central to my book and my thesis.

## The Blue Economy

The Blue Economy concept argues that oceans, if sustainably utilized, can play an increasing economic role in the coming century. The drivers of this are many but they include an increased understanding of the critical importance of ocean environments, new technologies to enable the exploitation of ocean resources, the search for new sources of food and energy; partly driven by global demographic trends and the increasing recognition of the importance of aligning future economic growth with maintaining, or even restoring, ocean health and biodiversity (EIU, 2015).

Since a large proportion of marine resource is believed to remain untapped or unexplored in different marine zones of the world, there is a widespread conviction that future growth will depend on the efficient utilization of those rich ocean resources. For small island states, endowed with large ocean territories, and exclusive economic zones (EEZs) larger than their land territories, sustainable use of marine resources has the potential to drive inclusive economic growth in the future. Their high EEZ per capita suggests that the Blue Economy can offer the prospect of sustainable, environmentally sound, socially inclusive economic growth (Attri and Bohler-Muller, 2018).

However, whilst the Blue Economy undoubtedly represents a central pillar to the growth and development of SIDS, there is a difficult balancing act that needs to be achieved if this ocean-driven economy is to be in any way sustainable in practice. Even without the proposed increased exploitation of this resource the oceans face rising degradation, depletion of fish stocks, habitat destruction, increased pollution, rising populations and damaging climate change (Spalding, 2016).

The 2015 Indian Ocean Rim Association (IORA) Ministerial Conference on the Blue Economy saw the adoption of the Mauritius Declaration on the Blue Economy that sought to put in place the strategic goals necessary for achieving this sustainable ocean resource management. It emphasised the importance of developing sustainable practices in fisheries and aquaculture, renewable ocean energy, seaports and shipping, and the development of offshore hydrocarbon and mineral mining. It set this declaration in the context of the United Nations' Sustainable Development Goals (SDG's) and particularly Goal 14 – the conservation and sustainable use of the oceans.

The core issue of this declaration is the coupling of increased activity in the industry sectors noted above with strong environmental protection. The main concern, of course, here, is the reality of actually achieving that balance.

Examples of this tension are the concerns over the substantial environmental impact of seabed mining, the increased pollution from seaport development and increased shipping capacity, and the negative impacts on marine bio-diversity of increased aquaculture (Clements and Chopin, 2017). With 33% of global fish stocks already overfished and almost 90% of the world's coral reefs under threat of destruction by the middle of this decade, the ability to actually reconcile these two competing factors and to deliver growth in the sustainable manner that characterizes the concept of the Blue Economy is still up for debate (OECD, 2019).

The central issue here is that whilst the Blue Economy is seen as an 'alternative' model of economic growth, the reality is that it sits very much within the traditional, recognized structures of economic production, distribution and development – ie, it is growth based on the exploitation of natural resources, physical goods exports etc.

What is often not discussed in dialogues and publications on the Blue Economy, in its relation to SIDS, is that the whole global economic model and the methods by which countries, communities and individual entrepreneurs create wealth, is seeing a seismic shift (Jacobides and Sundarajan, 2019).

The world's advanced economies are moving away from the previous industrial model and, in place of the exploitation of natural resources and large-scale industries that powered the 20<sup>th</sup> Century, economic growth today increasingly turns on creative innovation, technology and talent. This is not the marketing spin of technology companies or the predictions of tech commentators and journalists.

The market provides the most impartial, simplest and most dramatic way of showing this revolution – through the way it values businesses. Here is how the list of the world’s five most valuable companies has changed over the last decade (Statista, 2019).

*Top 5 companies by value in 2010      Top 5 companies by value in 2019*

1. Exxon Mobil – <i>Oil/ energy</i>	1. Amazon – <i>Technology/content platform</i>
2. Walmart – <i>Retail</i>	2. Microsoft – <i>Technology/ software</i>
3. Chevron Corp – <i>Oil / energy</i>	3. Google Alphabet – <i>Technology platform</i>
4. Conoco Phillips – <i>Oil/ energy</i>	4. Apple – <i>Technology/ content</i>
5. General Motors – <i>Auto</i>	5. Berkshire Hathaway – <i>Finance</i>

Facebook recently dropped out of the top 5, coming in now at number 6, but in 2018 all top five companies by market capitalization were technology based. Significantly, these technology companies are primarily driven by the production and distribution of digital consumer content and software solutions. That revolution has taken just over nine years. The speed of industrial change is accelerating and there is seemingly no terminal velocity to this change. The impact of the COVID-19 pandemic will surely only accelerate this further.

An interesting and revealing question to ask, then, is this. Is there any reason why a future top-ten technology company could not be started in St Lucia, or the Maldives or Seychelles? The answer of course is no, given that this company would have no reliance on the use of natural resources to produce the product, with export to a global market achieved completely digitally and without recourse to the usual physical shipping of goods.

For SIDS, the Blue Economy of course is central and essential, but as the above shows, it cannot be seen as the only driver of socio-economic development. To do so would not only exclude the rise of the most dynamic global trade sector, but also risks exacerbating the environmental impacts that Blue Economy strategies seek to ameliorate.

So although, by its very definition, the Blue Economy is sustainable growth based on ocean resources, the reality of its implementation is starting to look very different.

It is that gap between the need to develop the ocean resource and the importance to that very resource of its environmental protection that makes SIDS vulnerable, not just to the usual arguments around economic and climactic shocks, but the impact that a lack of innovation in thinking, research and business models can have.

If the goal is to deliver equitable and sustainable economic growth to coastal regions and SIDS then the Blue Economy can only be a part of the solution. We have to take a multi-sector approach that recognizes the paradigm shifts that have occurred, and are continuing to do so, in trade, wealth creation and economic growth and the huge opportunities that this shift opens up (Jie Cai and Nan Li, 2019). Unless governments and key global bodies recognize this, then the outcome of economic growth based solely on the oceans will be the very loss of the resource it sought to sustainably develop and exploit in the first place.

## The importance of the creative economy to the Blue Economy

The creative, digital and innovation economy should not just be limited to the developed world. Indeed, for developing regions it is absolutely essential to see these sectors playing an increasingly important role in the national economic mix. For SIDS in particular, this digital-creative economy can be crucial to the successful achievement of the Blue Economy.

There's a simple continuum model that will illustrate this point. At one end of the continuum is maximum environmental protection of the oceans – so the absolute minimum of economic exploitation. This is not realistic. At the other end is the maximum economic exploitation possible of this resource, with very limited ability to protect it. This is not desirable. The needle on that continuum, representing the impact of our current activity, has to sit somewhere, pulled as it is in opposite directions by those two opposing forces.

Now when you factor in the increasing economic needs of people, communities and governments in these regions, population growth, greater awareness of the benefits and urgency of ocean protection, the needle moves back and forth and is subject to a highly dynamic environment.



Hypothetically, let's say a country is 100% reliant on the oceans – fishing and tourism for example – as it has no other economic sectors. That entire reliance on the ocean economy for its GDP pushes the needle inevitably towards the economic exploitation end of the continuum, regardless of the good intentions of strategies, theoretical models and declarations.

Now imagine that we start adding other industries into the national economic mix, ones that don't need to use the ocean resource but can also trade globally – e-commerce, software design, financial services, and perhaps most crucially, the digital-creative industries.

Every time a new commercial sector is developed and added into that GDP mix, the pressure on the Blue Economy eases and the needle becomes less resistant to shifting back down the continuum towards environmental protection. It seems an entirely logical argument but one that all too often gets ignored in the mountain of literature, strategies, forums and white papers that position the Blue Economy as the only way forward for these island states and regions.

The Blue Economy will be one of the most important areas for global economic inclusion, sustainability and equality over the next decade but it has to fulfill its ultimate remit – it has to be not just sustainable but ultimately environmentally positive.

However, with almost 50% of the world's population predicted to be in the countries of the Indian Ocean Rim by 2050 (Doyle, 2018), the needle on that continuum is only going one way unless we think and act in a more innovative and cross-sectoral way. Statements and declarations have to translate into innovation and impact. This can only be achieved if the Blue Economy is seen as part of a whole and not the whole in itself. Delivering the Blue Economy goal must be multi-sector, cross-sector and driven by strong public-private partnerships (Schroeder, 2019).

Whilst progress has been made on the blue economy agenda, with the island tourism industry for example making great strides in sustainable practices such as the elimination of plastic waste, water conservation and local food production, it is still hugely impactful in terms of carbon footprint, is founded on a generally low skill and low paid local or migrant workforce, and the majority of the profits do not stay in the regions in which they are generated (Akadiri, Akadiri, and Alola, 2019).

The COVID 19 pandemic has generated a number of discussions on how these negative impacts on tourism can be reduced, with the shift to fewer numbers and higher values being the prime message. This is easier said than done though with a variety of stakeholders with competing interests all seeking to recover from the current crisis in their own way.

The key of course is to engender cross-sector innovation and multi-sector strategic development. The more isolated the emphasis placed on the Blue Economy and the more focus, energy and research conducted solely in this discipline without connection to other sectors, the more pressure is placed upon it to achieve its goal of sustainable economic growth. That, unfortunately, is where it has the prospect of falling down, because the pressure to deliver that growth will, as the population grows to around 8.5bn by 2030, override the sustainable aspect of the Blue Economy concept.

To avoid this we have to see development in SIDS regions as a holistic whole, placing an emphasis on digital, creative, and knowledge-based economic drivers just as much as on the ocean economy. We then have the possibility of not just maintaining, but improving, the health of the oceans, of delivering greater equity and inclusion in economic growth, and engaging society and culture in the whole mix (Halpern et al., 2019)

With the global economic system facing greater uncertainty, pressure and upheaval than at any time in the last 100 years, the impact of these forces on sustainable development in SIDS will only increase. This dynamic uncertainty means that small island states have to innovate in their thinking around inclusive and sustainable growth, in the sectors in which they invest, and in the policy and strategic frameworks that their governments put in place. This is why the digital-creative-knowledge economy will be so important to these regions. The vulnerabilities previously discussed have now come into sharp focus with the economic upheaval and uncertainty that is all too present at this time.

## Engaging entrepreneurialism

There is now a widely recognised need to significantly increase the work on international climate action and financing, primarily because of the post-pandemic crisis we currently face and the levels of inaction previously experienced. Alongside that however, is a growing realisation that low carbon economies, markets and technologies, coupled with a growing move in global



trade towards digital, creative and knowledge-based products, actually makes good financial sense for the private sector.

To address these complex challenges there is a need to accelerate the transformation of island economies, driven by climate responses, the engines of the fourth industrial revolution and a much greater understanding – and implementation of – the opportunities and strengths of a digital technology-driven, creative, knowledge-based economy. By moving the argument on sustainable, equitable and inclusive growth in small island states towards a multi- and cross-sector development model, the opportunities to engage the creative entrepreneurial drive of island peoples starts to not only be possible but to really make economic sense.

That argument still has some way to go in terms of acceptance and even understanding by developing country governments and key international groups, with ‘creative industries’ still often seen simply as arts and cultural heritage and consigned to footnotes or single-line entries at the end of economic development strategies.

This is despite the numerous conferences, strategies, white papers and forums happening around the world on the benefits to the economy of supporting creative and cultural entrepreneurs. The UK for instance has one of the most successful creative industries, contributing £111bn GVA to the economy – that’s more than the aerospace, life sciences, automotive and oil and gas industries combined.

The real issue is the understanding that strong creative economies are not just found in the major cities of the developed world. Briguglio (2014) makes an interesting observation that for small island states there is almost a neo-colonial attitude around the creative industries and the ability of SIDS to build sustainable creative economies, harking back to the scholars of the 1960s and their presumption of the economic non-viability that surrounded that period’s wave of island state sovereignty. The research and work around the sustainability of SIDS is a prime example of this.

Despite virtually unanimous agreement on the need to broaden island economies to ameliorate the impacts of climate and economic shocks, and their vulnerability in terms of distance from markets, economies of scale and lack of natural resource beyond the oceans, those propounding the opportunities that the digital creative economies present still struggle to be heard and to be taken seriously. The support then for island-based creative entrepreneurs is woefully limited.

The UN SAMOA pathway document called upon the international community to support SIDS in designing and implementing their own innovative cultural policies to strengthen heritage and creativity and leverage the economic, social and natural benefits of culture (UN, 2014). The ‘creative industries’ were mentioned in that section but it’s revealing to see how it is contextualized and aligned. The document highlights preserving tangible and intangible cultural heritage and promoting culture for island sustainable development, which is certainly important, but again there is a failure to understand that creative industries, as a tool for sustainable development are far wider than just cultural heritage.

For example, there was no mention of the development of digital exports – the fastest growing global export sector and something which circumvents the well-worn distance-to-markets argument. There was no discussion of the alignment of creative and cultural products and producers to international e-commerce systems – a market that is now worth more than \$26 trillion and that makes up 30% of global GDP (UNCTAD, 2018). With the remaking of the economic model post COVID19, that figure is set to grow substantially.

Computer games design and production, film and television production, digital design, mobile content and data platforms, visual effects and immersive technology, are the key drivers of the explosion of creative industries as a global economic success story. The computer games industry for instance is worth around \$165bn, with significant growth estimated for 2020 and 2021 (Gough, 2018). Yet these are conspicuous by their absence from discussions of creative industries and sustainable development in small island states; the belief, of course, is that these sectors belong in the major cities of the developed world and can’t be part of the economic mix of small island states in any meaningful way. That however, belies the nature of the business.

Key to the value of these industries to SIDS is that they circumvent many of the traditional difficulties and vulnerabilities associated with small island states. The games sector, for example, has no reliance on exploiting natural resources, it bypasses the need to distribute physical goods, so distance from markets is not an issue, and it’s growth is not restricted by small domestic markets as it can sell directly to a global audience instantly. It can work both B2B and B2C.

Games start-ups have the ability to scale quickly, with a total consumer market currently standing at over 2.5 billion games users and growing fast as smartphone penetration accelerates (Gough, 2019). With the global number of internet-connected devices expected to reach 50 billion by 2030, the demand for creative

content is only going to increase (Statista, 2020). Combine that with the spread of 4 and now 5G networks and this is now emerging as a global economic powerhouse.

This just gives an example of a digital creative sector that has enormous potential to work successfully in small island states. What is required, of course, is the foresight to put in place the structures to make it happen – education, start-up ecosystems, investment opportunities, and cluster networks to support companies in the initial years of growth and then give them the means and structures to expand.

## The perception of the creative and cultural industries

Papers and reviews of the SAMOA Pathway by researchers and agencies in the Caribbean note the importance of the creative, or Orange Economy, but once again its revealing to see how that is discussed. The Association of Caribbean States (ACS) recognizes that the creative economy can be a significant engine for growth in the region but then highlights the carnival sector as simply a way of growing further tourism and sees arts and crafts industries as a way of diversifying the tourist experience (Dubrie et al., 2019).

These are both valid reasons to support those creative sectors, reinforcing the points made earlier about the ability of creative industries to drive cross-sector growth. It is noteworthy, however, that the creative sector is discussed primarily as a way of growing tourism and not as a significant sector in its own right. This links back to the pathway document statements around tangible and intangible cultural heritage.

The majority of impacts that the creative industries have had on the global economic and trade systems, however, have come because of their transformation through digital technology. So whilst the objectives in the SAMOA Pathway document recognize that creative and cultural industries are important to the economic and social wellbeing of SIDS, it is the lack of connecting this, literally and conceptually, to the opportunities of technology that has held them back, and continues to do so.

This is of course, of critical importance now given the collapse of the tourist industry in island states across the world. The scale of the COVID19 impact on global tourism is outlined in a UNWTO report (UNWTO, 2020) that predicts a decline in international arrivals of between 58-80% this year.

It threatens the livelihoods of up to 120 million people who directly rely on tourism – with vastly more than that indirectly – and looks set to cause a loss of export revenues of up to US\$1tn. Proportionally though, of course, the impact on small island states is far worse than for larger developed countries in Europe or the Americas. Island states and the wider developing world simply don't have the economic muscle to throw money at the problem to temporarily prop up jobs and companies.

As has been said widely, there can be no return to normal – we have to start designing now the kind of new normal we want. For small island developing states, that has to be an economy with a broader base, that allows local MSMEs to reach global markets and bring significant revenue home, that is driven by knowledge-based, creative digital skills and business models, and drives innovation across every other sector.

Recognition of the creative and cultural industries then, particularly those driven by digital technology, is crucial to the process of designing and implementing more resilient and locally driven entrepreneurial economies.

## Routes to resilience for SIDS economies

Despite the challenges, there are, however, some positive examples of action being taken 'on-the-ground' in the Caribbean and, in many ways, this region is leading the way in promoting creative economy development for SIDS.

The Branson Centre for Entrepreneurship, established in Jamaica in 2011, has become the region's leading start-up and business accelerator. Crucially, and uniquely for a SIDS region, it has developed a strong investment pipeline, allowing each entrepreneur cohort access to venture capital, with creative and cultural industries focused start-ups featuring strongly in the current accelerator programme.

The Caribbean Development Bank launched the Creative and Cultural Industries Investment Fund in 2017 as a way of stimulating growth in these key sectors, with an initial capitalization of US\$2.6m. Importantly, this is grant funding for the creative sector and not debt funding, which so often is the default position for many MSME development funding schemes. The fund has also been able to support the creative sector's loss of revenue through the COVID pandemic with emergency relief grants, a hugely positive action for a SIDS region (Caribank, 2020).

These two development programmes demonstrate an awareness of the importance of the creative economy and a process whereby the sector can be supported and the entrepreneurship ecosystem developed.

In the Maldives, Sparkhub was launched in 2018 as a partnership between local entrepreneurs, with the aim of building and supporting the country's start-up ecosystem. It now works in collaboration with telecoms provider Dhiraagu and US accelerator Techstars to run Startup Weekends, as well as hackathons and ideas camps.

In Seychelles, the establishment of the Creative Industries National Events Agency in 2016 was a positive step but there is a need to support CINEA with research, education and finance to deliver on its mandate. Again, and similar to strategies in the Caribbean, the creative industries have to be supported across all sectors and not just seen as carnivals and live events.

So why are these, albeit limited, examples not being recognized in wider strategic policy and research documents? In discussions around the sustainable development of small island states, why are these instances of good practice and positive impact not forming a more central part of the discussion?

The reason may be that there is a seeming disconnect between individual creative industries projects such as those above and the research community, national government policy making, and international organizations.

Research and data play a vitally important role here. Reliable and timely data is essential for strategy and decision making at regional, national and international levels. Unfortunately there is a significant gap in the availability of reliable, high-quality data sets and contextualized analytics around the creative industries in small island states, as well as the wider developing world (UNCTAD Creative Economy Outlook, 2018). This inevitably leads to research being based on outdated or very limited and possibly unreliable sources; strategic direction not reflecting the current state of economic, social and cultural reality; and, hence, policy making being out of step with real sustainable development needs and innovations.

The narrative of vulnerability, whilst undoubtedly based on concrete realities, must not become all pervasive and must be countered by research based on solid data and an awareness that changing trade models around digital technologies are just as relevant to SIDS as they are to the world's leading economies; and the

same sectors, innovations, and advances that are powering the developed world also equally apply to island states.

So the weight of literature and consequent strategic decision making around climate impacts, ocean degradation, over-tourism and the need for heavy investment in the Blue Economy to offset these effects, is overlooking the importance of innovation, human resource development and trade in these digital-creative sectors. It is also underestimating the potential for developing knowledge-based, creative local economies that, thanks to the impact of the rapidly-advancing technologies of production and distribution, allow these traditionally isolated regions to insert themselves into the new global digital trade market.

The roll-out of 5G capabilities in Seychelles with the investment from Intelvision, alongside its aim of 95% coverage and significantly greater smartphone penetration, will open up notable opportunities for entrepreneurs, innovators and creators to move into global digital export markets.

Resilience therefore for SIDS is not just a case of science and technology mitigating the effects of climate change or developing new clean-energy sources, but of framing sustainable development for these regions as encompassing all aspects of economy, society, culture, innovation and government.

Whilst the challenges of limited land area and domestic markets, finite resources, physical isolation from global markets, and increased transport costs are all correct, accepting them as the reason for low levels of creative entrepreneurship is reductionist and no longer holds true.

More important areas of action today for small island states are increasing the flows of FDI in sectors other than tourism and infrastructure, building better and more collaborative R & D capability, implementing more favourable local finance terms for MSMEs, enabling a better private-sector business environment to encourage investors, and creating a more educationally engaged youth that can then lead to a modern, high-skill and high-wage workforce.

These are certainly not insignificant barriers but they are also not insurmountable. SIDS cannot change their geographical characteristics so let's not keep reiterating those as a reason for an assumed irreversibly narrow and fragile economy. Instead, let's focus on creating a knowledge-based economy and supporting this through the educational, business, technology, fiscal and regulatory environments that allow island peoples to create, innovate, build value in their ideas and



content and then monetize these through the rapid digital transformation of the global market.

The innovative thinking that saw the Seychelles create the world's first sovereign blue bond cannot just be restricted to the Blue Economy. Let's take that innovation and use it to build a strong, resilient and sustainable 21<sup>st</sup> century knowledge economy for island states that is inclusive, equitable and supports the health of our ocean environments and the creative ambitions of its peoples.

## References

Akadiri, A.C., Akadiri, S.S. and Alola, U.J. (2019). Is There Growth Impact of Tourism? Evidence From Selected Small Island States. *Current Issues in Tourism*, 22 (12), pp.1480-1498.

Attri, V.N. and Bohler-Muller, N. (2018). *The Blue Economy Handbook of the Indian Ocean Region*. Africa Institute of South Africa.

Briguglio, L. (2014). A Vulnerability and Resilience Framework for Small States. Book chapter in, *Building the Resilience of Small States*. Commonwealth Secretariat.

Clements, J.C. and Chopin, T. (2017). Ocean acidification and marine aquaculture in North America: potential impacts and mitigation strategies. *Reviews in Aquaculture*, 9 (4), pp. 326-341.

Coke-Hamilton, P. (2020). *Impact of COVID-19 on Tourism in Small Island Developing States*. UNCTAD.

Cultural and Creative Industries Innovation Fund. (2020). Caribbean Development Bank. [www.caribank.org/ourwork/programmes/cultural-and-creative-industries-innovation-fund](http://www.caribank.org/ourwork/programmes/cultural-and-creative-industries-innovation-fund)

Doyle, T. (2018). *Journal of the Indian Ocean Region*. 14 (1), pp.1-6.

Dubrie, A. et al. (2019). *Synthesis of the Caribbean Subregion Midterm Review of the Small Island Developing States Accelerated Modalities of Action Pathway*. ECLAC.

Economist Intelligence Unit (EIU). (2015). *The Blue Economy; Growth, Opportunity and a Sustainable Ocean Economy*. Briefing Paper for the 2015 World Ocean Summit.

Gough, C. (2019). *Number of Video Gamers Worldwide 2014-2021*. Statista. [www.statista.com/748044](http://www.statista.com/748044)

Gough, C. (2018). *Value of the Global Video Games Market 2012-2021*. Statista. [www.statista.com/246888](http://www.statista.com/246888)

Halpern, B.S., Frazier, M. Afflerbach J. et al. (2019). Recent Pace of Change in Human Impact on the World's Ocean. *Scientific Reports*, 9 (1).

Jacobides, M.G. and Sundarajan, A. (2019). *Platforms and Ecosystems: Enabling the Digital Economy*. WEF.

Jie Cai and Nan Li. (2019). Growth Through Inter-Sectoral Knowledge Linkages. *The Review of Economic Studies*, 86, pp. 1827-1866.

OECD. (2019). *Rethinking Innovation for a Sustainable Ocean Economy*. OECD Publishing, Paris.

Schroeder, C.J. (2019). *Sustainably Leveraging the Blue Economy Through Public-Private Partnerships: a Case Study of Namibia's Port Development*. WMU.

Spalding, M.J. (2016). The New Blue Economy: the Future of Sustainability. *Journal of Ocean and Coastal Economics*, 2, (2).

Statista. (2019). *The 100 Largest Companies by Market Value in 2019*.  
[www.statista.com/statistics/263264](http://www.statista.com/statistics/263264)

Statista. (2020). *IoT Connected Devices Worldwide 2030*.  
[www.statista.com/802690](http://www.statista.com/802690)

UN. (2014). *SIDS Accelerated Modalities of Action Pathway*. UN General Assembly Resolution Document

UNCTAD. (2018). *Measuring e-commerce and the Digital Economy*.

UNWTO. (2020). *Impact Assessment of the COVID-19 Outbreak on International Tourism*.  
[www.UNWTO.org](http://www.UNWTO.org)

WTTC. (2019). *Direct Contribution to GDP*. WTTC Data Gateway.  
[www.tool.wttc.org](http://www.tool.wttc.org)

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