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Africa's Blue Economy: Unlocking a new wave of prosperity?

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"Where water flows freely, people live in affluence," according to an old Tuareg proverb. Africa's 38 coastal and island states access more than 30,000 km of coastline along the Atlantic and Indian oceans, two of the planet's most extensive waters. The abundant natural resources of the ocean economy offer Africa many opportunities to accelerate growth and development through sustainable fishing, energy, trade, maritime transport, and tourism.

Despite its vast potential, Africa's transition to a blue economy is still in its infancy. Development of this potential faces several barriers: weak coordination at the highest levels, poor infrastructure development, a lack of funding, and most recently, the turmoil generated by the COVID-19 pandemic. Only three countries (Mauritius, Seychelles, and South Africa) have rolled out policy and instituted meaningful action. The African Union Development Agency estimates that the continent's marine resources realised only 21% of its expected value in 2019.

This analysis identifies the development of a blue economy entails and why it promises to be a critical economic catalyst for the continent under the African Continental Free Trade Agreement (AfCFTA). It unpacks implementation constraints, investment opportunities and the viability of the continent's policy ambitions, many of which are already behind schedule.

Analysis framework:

This article explores five questions to arrive at an understanding of this trend. The first is to define the blue economy and identify what it might deliver to African economies. The next is to identify why this trend is increasingly critical to Africa, relative to the directions taken on other continents. In this context, the salient questions focus on what is hampering progress, and what needs to change to overcome these barriers? Bringing the focus home to Africa, the author identifies the countries that are taking the lead and which sectors stand to benefit. The article closes by answering the question, "should investors be getting excited?"

1. What is the blue economy, and what can it deliver?

The relatively new term "blue economy" refers to the management, preservation and sustainable harnessing of sea, ocean, river, dam and lake resources for economic benefit, social inclusion and an improvement of livelihoods beyond just those directly involved.[1] It typically refers to traditional ocean-related industries such as fishing, tourism and maritime transport[2] but also has come to encompass aquaculture, offshore renewable energy, seabed extractive activities, marine biotechnology and bioprospecting.[3]

According to the World Bank[4], to qualify as a component of the blue economy, activities need to:

- Provide social and economic benefits for current and future generations
- Restore, protect, and maintain the diversity, productivity, resilience, core functions, and intrinsic value of marine ecosystems

Be based on clean technologies, renewable energy, and circular material flows that will reduce waste and promote recycling of materials (figure 1).

Figure 1: Components of the blue economy

Type of activity	Ocean service	Established industries	Emerging industries	New industries	Drivers of future growth
Harvesting of living resources	Seafood	Fisheries	Sustainable fisheries		Food security
			Aquaculture	Multi-species aquaculture	Demand for protein
	Marine bio-technology		Pharmaceuticals, chemicals		R&D in healthcare and industry
Extraction of non-living resources, generation of new resources	Minerals	Seabed mining			Demand for minerals
			Deep seabed mining		
	Energy	Oil and gas			Demand for alternative energy sources
			Renewables		
	Fresh water		Desalination		Freshwater shortages
Commerce and trade in and around the ocean	Transport and trade	Shipping			Growth in seaborne trade
		Port infrastructure and services			International regulations
	Tourism and recreation	Tourism			Growth of global tourism
		Coastal development			Coastal urbanisation
			Eco-tourism		Domestic regulations
Response to ocean health challenges	Ocean monitoring and surveillance		Technology and R&D		R&D in ocean technologies
	Carbon sequestration		Blue carbon (i.e. coastal vegetated habitats)		Growth in coastal and ocean protection and conservation activities
	Coastal protection		Habitat protection, restoration		
	Waste disposal			Assimilation of nutrients, solid waste	

Source: Economist Intelligence Unit

The economic sectors of fishing, mineral and energy extraction, trade corridors, transport and tourism have long been vital economic focus areas that drive growth, but environmental sustainability is rarely emphasised. At its core, the concept of the blue economy is an ocean-based model advocating the decoupling of socioeconomic development from environmental degradation.[5]

There have been few measures of the ocean economy's contribution to global gross domestic product (GDP). Those few venturing an estimate calculate that the average contribution to the world's annual GDP ranges between US $1.5 trillion and US $3 trillion, or approximately between 3% and 5% of global GDP (figure 2).[6] Quantifying the growth potential of a move to a blue economy is equally imprecise and contingent on a host of variables.

The OECD projected ocean economy growth under three different scenarios:

1. Unsustainable growth – US $2.8 trillion
2. Business-as-usual – US $3 trillion
3. Sustainable growth (a blue economy) – US $3.2 trillion

Under the three scenarios, there is very little (US $400 billion) variation in the gross value added (GVA) over the short-term to 2030. Over the longer term, however, the gap is likely to widen significantly as unsustainable growth begins to wane in the face of dwindling ocean resources and activity.

Figure 2: OECD Projections of Changes in the Ocean Economy to 2030 under Business as Usual Scenario

INDUSTRY	SHARE OF OCEAN ECONOMY (%)		CHANGE IN OCEAN ECONOMY SHARE (%)	GROSS VALUE ADDED (US$, BILLIONS)		GROSS VALUE ADDED INCREASE (US$, BILLIONS)
	2010	2030	2010–2030	2010	2030	2010–2030
Tourism	25	26	1	375	780	405
Ports	13	16	3	195	480	285
Fisheries	6	11	5	90	330	240
Marine renewables	1	8	7	15	240	225
Shipping	20	17	-3	300	510	210
Offshore oil and gas	34	21	-13	510	630	120
Aquaculture	1	1	0	15	30	15
Total	100	100		1,500	3,000	1,500

Source: OECD

The blue economy seeks to leverage the full potential of the ocean and related activities and ensure the preservation of the economic output and benefits into the future. Doing both will be critical in providing food and energy security, reducing poverty and reversing many decades of environmental degradation.

The oceans play essential roles in commerce. Maritime channels transport more than 80% of global trade volume. About one-third of crude oil production will come from offshore extraction over the next five years.[7] Beyond this, fishing provides direct and indirect jobs for roughly 350 million people, and aquaculture is the fastest-growing food sector providing more than 50% of the world's available marine products. The World Bank estimates that the ocean helps meet the nutritional requirements of 3 billion people around the world for whom fish and ocean products are an essential source of protein.

In Africa, where poverty, employment, climate change, food and energy security are already significant concerns, a concerted drive toward implementing the ideals of a blue economy will provide extensive support for realising the United Nations 2030 Sustainable Development Goals (SDGs).[8]

2. Why is it critical to Africa and what have other continents implemented?

The World Bank estimates that half of the world's population live within 60 kilometres of the sea and 70% of Africa's states[9] are either alongside or surrounded by ocean.[10]

The thrust of Africa's blue economy drive comes from Agenda 2063, the African Union's (AU) 50-year social and economic development framework that seeks to grow Africa into a global economic powerhouse[11]:

> *"Africa's Blue/ocean economy … shall be a major contributor to continental transformation and growth, through knowledge on marine and aquatic biotechnology, the growth of an Africa-wide shipping industry, the development of sea, river and lake transport and fishing; and exploitation and beneficiation of deep-sea mineral and other resources" – African Union Agenda 2063.*[12]

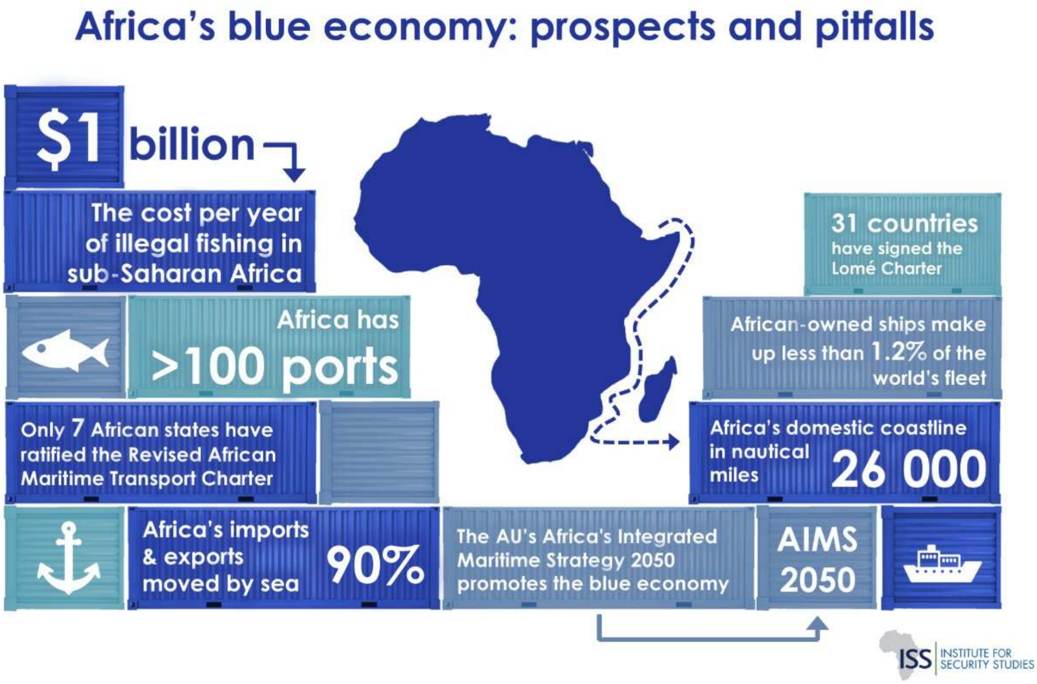
The AU is actively developing its blue economy strategy. In 2014 it endorsed the 2050 Africa Integrated Maritime Strategy (AIM Strategy) as a springboard from which to launch measures intended to combat illegal maritime activity (waste dumping, piracy), arrest climate change, support conservation and develop jobs, trade and maritime infrastructure.

"The overarching vision of the 2050 AIM Strategy is to foster increased wealth creation from Africa's oceans and seas by developing a sustainable, thriving blue economy in a secure and environmentally sustainable manner".[13]

It is easy to see why the ocean economy should take such a central position in Africa's growth agenda. The continent's oceans and inland water bodies are calculated to be three times the size of its landmass (13 million square kilometres). For Mauritius as an example, its territorial waters are more than a thousand times larger than the landmass of the island[14] making it critical from a GDP contribution and governance point of view.[15]

Ninety per cent of Africa's trade is transported by sea[16] and as the continent begins to trade under the African Continental Free Trade Area (AfCFTA) in 2021[17], Africa must expedite measures to facilitate trade channels and leverage the economic endowments of its ocean resources.[18] The continent's seafood, aquaculture and fisheries industry employs 12.3 million people, at least a third of whom are women.[19] The sector provides food security and nutrition for more than 200 million Africans. It is also a vital source of foreign currency and tax revenue, and its contribution to African GDP is almost 2%. The United Nations estimates the value the continent's coastline could be as much as US $1 trillion and triple in two years with the appropriate measures and stewardship.[20]

Figure 3: Africa blue economy

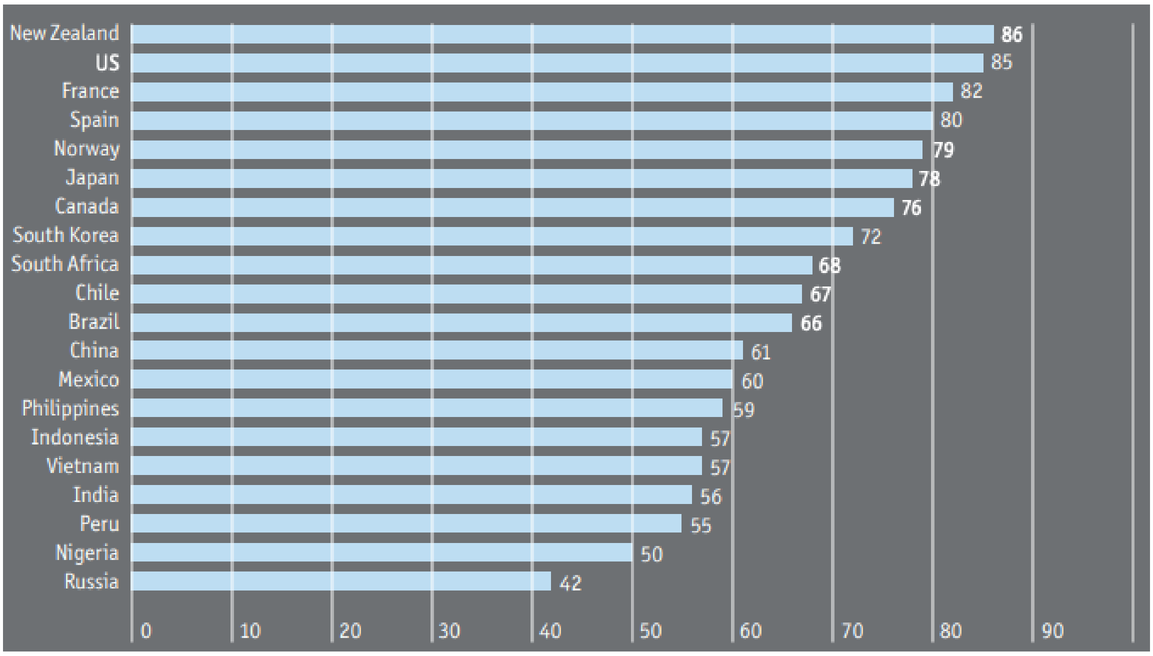


Source: ISS

Despite the economic and strategic importance of Africa's oceans and coastline, the continent's journey to a true-blue economy is still in its infancy. Several other continents and countries are more advanced in the implementation and measurement of their blue economy ideals.

The Economist Intelligence Unit (EIU) measured the extent of governmental regulation and management across 20 ocean economies based on the importance of their coastlines and their institutional and regulatory capacity to effectively implement blue economy strategies, oversight and enforcement.[21] Unsurprisingly, developed countries with strong democracies and infrastructure rank high in the index and have the most robust models for private sector participation. Of the African economies featured, South Africa performs the best at 68, while Nigeria languishes toward the bottom of the ranking table, ahead of Russia (figure 4).

Figure 4: Countries in the coastal governance index and overall score



Source: Economist Intelligence Unit

There are several reasons why emerging markets fail to match their developed market peers. The most important is a lack of resources and especially of infrastructure. Many emerging markets prioritise recurrent expenditure to generate growth at the expense of capital investment. This consumption expenditure delivers only a fraction of the returns from fixed investment. Developed markets (DMs) that previously invested intensively in capital projects are advantaged because infrastructure facilitates ongoing growth and generates returns that can be reinvested. DMs such as the US, EU and Australia are among the best examples of how fixed investment generates sustainable economic growth.

Case studies on successful 'blue economies'

United States

With US $617 billion in sales and a US $373 billion contribution to GDP[22], the United States recently committed US $1.21 billion to promote sustainable fishing, combat ocean pollution and drive sea exploration.[23] The US has made 113 such commitments since 2014 valued at over US $4.3 billion.[24] Additionally, the Coronavirus Aid, Relief, and Economic Security (CARES) Act included US $300 million in funding for commercial seafood harvesters and aquaculture farmers. While well short of the US $4 billion requested, it underscores the acknowledged importance of the sector to the US's economy and job creation.[25]

The European Union

The European Union, which values its blue economy at 750 billion Euros, has also been proactive in its support of driving blue economy objectives.[26] It proposed its "Blue Growth" strategy as early as 2012.[27] The sector grew employment 11.6% in 2018 to 5 million people, well ahead of other economic sectors and the Union sees enormous potential to grow the sector further. The EU fund for strategic investments has provided 1.4 billion Euros for the development of offshore wind projects, nearly 50 million Euros to support blue economy entrepreneurs and earmarked substantial funds for port development and clean shipping.

Comparing Australia and China

Australia launched its Blue Well-being Initiative in 2008, an early recognition of the need to protect and leverage its ocean resources for economic growth and industrial development. China announced its Shandong Peninsula Blue Economic Zone Development Plan in 2011 as a drive toward a financially beneficial co-existence between humans and nature.[28]

What differentiates the above initiatives efficiency, rather than funding. As the EIU notes, EU members have significantly more advanced seaport infrastructure and have invested in and attracted skills and expertise to leverage their roadmaps. A PWC report estimates that a 25% improvement in Africa's port performance could lead to a 2% boost to the continent's GDP.[29] UNECA estimates that a focus on Mauritius's marine economy could create more than 10,000 jobs in the country over the next five years and meaningfully raise the country's productivity levels.[30] Issuance by the Seychelles of a blue bond will enable the country to increase its marine protected area by 30%, greatly increasing the sector's output capacity. South Africa estimates that its blue economy drive could add almost 5% to GDP and increase employment by more than 10%. For Africa as a whole, a focus on the blue economy may add a staggering 12% to the continent's US $1 trillion maritime industry.

The appropriate political will and targeted policy could offset some of the funding and infrastructure constraints. Instituting business-friendly policies would improve the ease of doing business, reduce port and transport delays, encourage entrepreneurship and promote sustainable use of the ocean's resources. Quite simply, the continent must overcome these challenges. Ignoring the development potential of the blue economy will set the continent's economic progress back even further.

3. What is hampering progress and what needs to change?

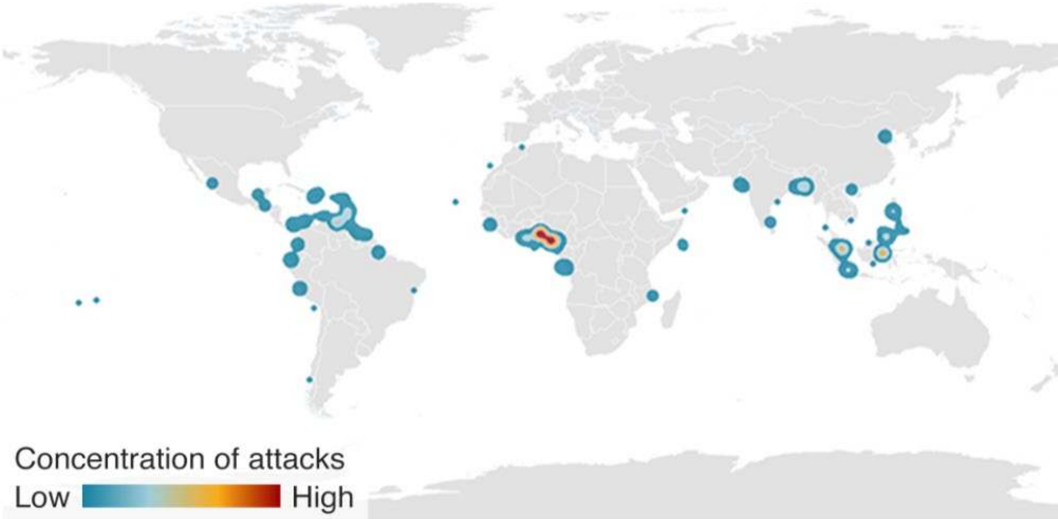
For the most part the blue economy has not been high on Africa's list of priorities given the many hurdles the continent faces. Poverty, hunger, its large informal economy, overdependence on commodities and large income disparities pose difficult limitations. However, by focusing on a few basics, a prosperous blue economy can become a significant contributor to alleviating some of these ills.

First, African nations must confront fundamental challenges, such as maritime insecurity, unsustainable extraction practices, pollution and weak regulatory frameworks and enforcement processes.[31]

Maritime insecurity

Maritime insecurity encompasses a host of illegal ocean activity that negatively impact individuals and communities. Piracy, armed robbery, kidnapping for ransom and terrorism are a growing concern in the region.[32] The coastal waters off Somalia and Eritrea were once the most dangerous. However, piracy along Africa's west coast is becoming the new hotspot (figure 5).[33]

Figure 5: Piracy and armed robbery at sea 2018



Source: BBC

In 2017 alone, piracy along Africa's east coast is estimated to have cost US $1.4 billion in additional labour requirements, protection, theft, legal costs and insurance. State fragility, unemployment, corruption, economic deprivation and geographic opportunity are the primary drivers of recent increases in piracy.[34] Governments must step up anti-piracy efforts. Piracy is a significant disincentive to foreign investment and brings huge economic and social costs. Better-resourced naval patrol units would act as a considerable deterrent not only to piracy, but also to the smuggling of narcotics and human trafficking, and enable more vigorous enforcement of anti-poaching and illegal fishing laws.

Unsustainable extraction practices

Illegal and unregulated fishing practices in African waters have led to many species of fish stock being depleted and damaged fragile reef ecosystems. If left unchecked, such practices threaten to disrupt food security on the continent and generate regional instability. African states must consider expanding sensitive and already compromised marine protected areas, but all this will be in vain without the proper oversight and enforcement.

Similarly, extractive mining industries such as oil, gas and diamonds raise environmental pollution risks and impose great costs to the seabed ecosystem. These resources represent valuable opportunities to generate economic growth and employment. However, nations and their environmental protection agencies must ensure they grant prospecting and extraction rights to responsible agents. Those who exploit these valuable resources must not only inflict the least amount of damage to the oceans but also actively rehabilitate them.

Pollution

Pollution in the form of chemical toxins, effluent, plastics and industrial waste create enormous environmental damage. The 1,000-tonne oil spill in Mauritius in July occurred in a sanctuary for rare wildlife[35], wreaking extensive and long-lasting damage to the ecosystem and killing thousands of animals.[36] The incident is thought to result from reckless behaviour by the crew, with the ship navigating too close to shore to pick up Wi-Fi signal, and to distractions created by a birthday party aboard the vessel that day.

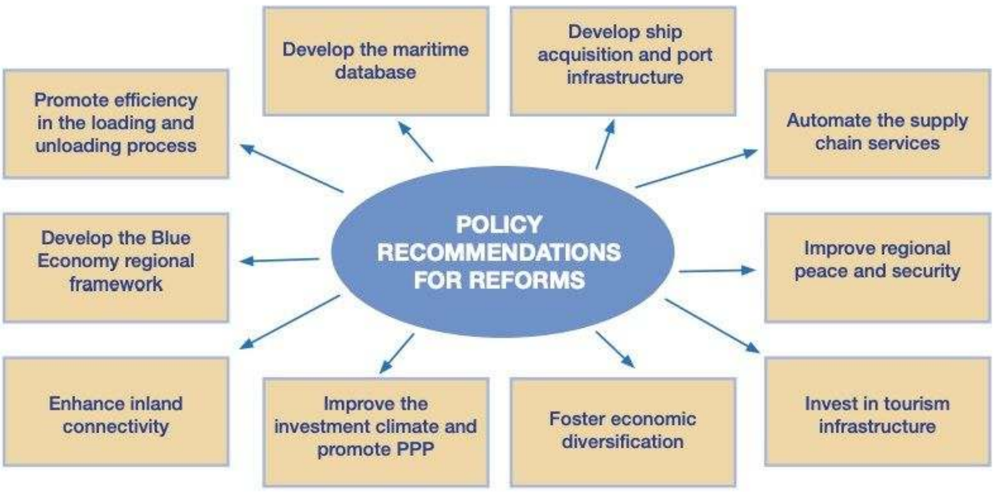
Incidents such as these reach far beyond fishing and maritime corridors. Their impact on tourism would have been incalculable had it not been for the island's COVID-19 induced lockdown. Already, the Mauritian government is seeking US $34 million to assist residents whose livelihoods have been impacted by the spill. The incident highlights that governments must work closely to hold private sector participants accountable for any adverse consequences stemming from their operations. The pandemic will likely continue to have a long-term effect on the region as international travel resumes.

Weak regulatory framework and enforcement

Part of the continent's challenges stems from the lack of an effective central body and to little to no harmonisation of maritime environmental laws across countries. It is hoped that as Africa moves toward free trade, there will be greater coordination and harmonisation under the AU, although this will take time. These frameworks must be developed in partnership with those most affected in the decision-making progress [37] and emphasise the importance of environmental protection, sustainability and shared prosperity.

From an oversight and enforcement perspective, much of the inertia is a result of political will and low priority for funding. Countries should look to be more inclusive of private sector participants whose prosperity depends on responsible and sustainable growth. This path is well travelled, as when mounting pressure by the public and environmental advocacy groups forced banks and lenders to scale back funding to coal and oil producers and instead increase lending to sustainable energy companies. As "green bonds" have been launched for investment in environmental and climate-friendly sectors, so too can "blue bonds"[38] drive the desired ecological, social, and governance outcomes.

Figure 6: UNECA policy recommendations and reforms for Africa's blue economy



Source: UNECA

Many additional challenges confront African states on their journey toward a blue economy. These in some instances are beyond government control, such as climate change, rising sea temperatures, coral bleaching and overfishing beyond national waters. For under-resourced African states, the sheer size of their territorial waters poses barriers to effective monitoring, enforcement and management. Further, uncertain borders can lead either to territorial and geopolitical tensions or to large gaps in monitoring and management. [39] Developing a coherent and harmonised blue economy policy based on joint oversight and accountability would be an important starting point for the region.

These challenges will generate significant opportunities for the private sector to capitalise on state shortcomings. These gaps include providing security, oversight and objective advice. Already, private protection services (often staffed by ex-military personnel) receive lucrative contracts to protect the crew and cargo of vessels and ensure safe passage through pirate-infested waters. Similarly, consulting firms conduct the environmental impact assessments needed to begin extractive activity. Other private firms will deliver advice on environmental pollution and rehabilitation. Overfishing and dwindling fish stocks created a booming aquaculture market. The uncertainties — ranging from political and safety risks to financial liability— may be considerable. However, the likelihood of non-payment is lower for work commissioned by private companies than when working directly for public agencies. Success in this arena will require knowing which countries and sectors stand to benefit the most.

4. Which countries are taking the lead and which sectors stand to benefit?

The extent of Africa's drive toward a blue economy has for the most part been pledges, conferences and workshops like that at the African Ministerial Conference on Ocean Economies and Climate Change held in 2016. Mauritius was selected as the African centre of an economic forum to attract investors, donors and partners.[40]

At a continental level, the AU established a blue economy division in its Department of Rural Economy and Agriculture. However, this division might receive greater prominence as a standalone entity. In 2018, President Danny Faure of the Seychelles was appointed as the AU's blue economy champion.[41]

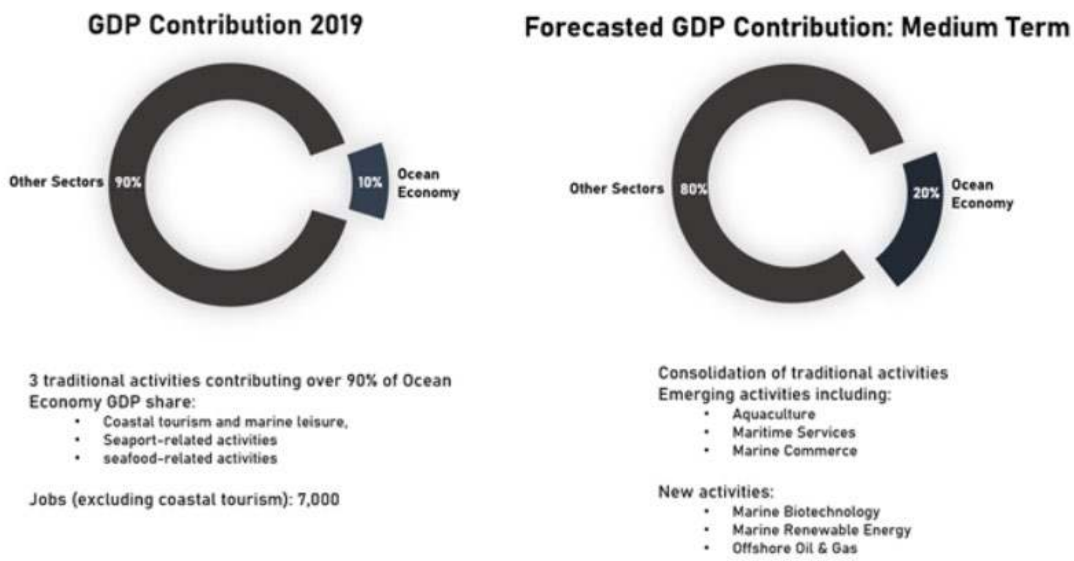
While aspirational, actual progress has been disjointed and slow. Most countries have yet to begin taking steps toward developing a blue economy framework. Some countries, however, are beginning to acknowledge the long-term importance of accelerating its implementation and taking action. Mauritius, The Seychelles and South Africa are the most advanced in implementing their blue economic policies.

Mauritius

As for most islands, Mauritius is heavily dependent on the health and sustainability of its territorial waters to drive economic growth. The Government established a blue economy roadmap in the office of the Prime Minister in 2013.

Mauritius aims to increase the blue economy's contribution to GDP from its current 10% to 20% by 2025. Current plans are to consolidate traditional fishing and seafood processing, to drive new developments in aquaculture, and expand marine renewable energy and offshore oil and gas production (figure 7).[42]

Figure 7: Mauritian blue economy contribution to GDP

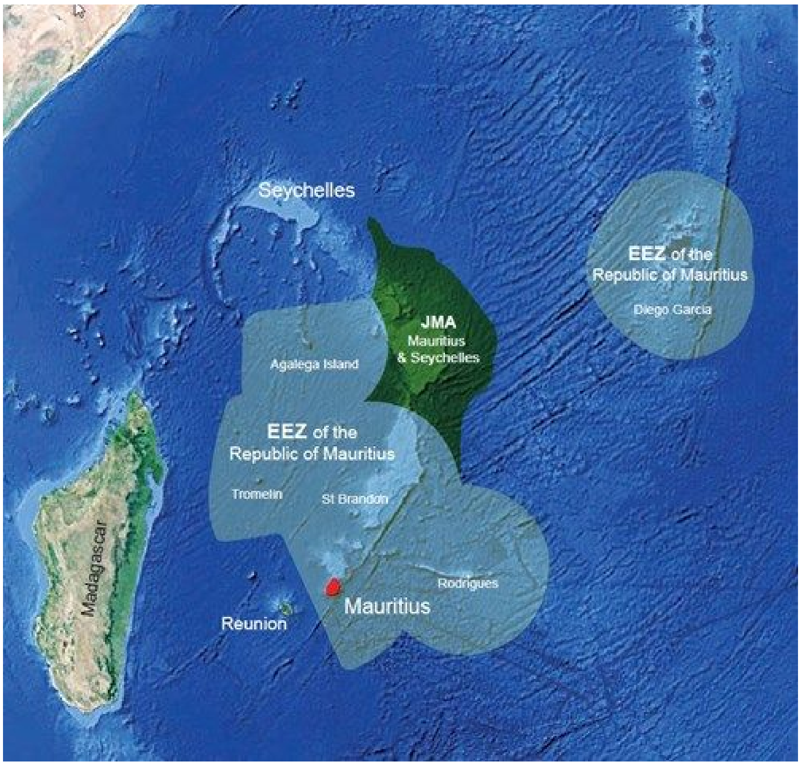


Source: Mauritius Economic Development Board

The country invested heavily in job training to prepare the sector for anticipated increases in cruise and commercial ship volumes as the country emerges from lockdown.[43] Mauritius introduced new measures through a consultative process that creates a sense of ownership and implementation accountability. These measures include grants for the purchase of semi-industrial boats, boat motors and fishing nets, and additional fiscal exemptions of up to eight years on expenses for productivity and training.

The Minister of the Ocean Economy drives growth and governance in the sector. The recently introduced Merchant Shipping (Prevention of Pollution by Oil and Noxious Liquid Substances in Bulk) bill will compel certain vessels plying its waters to have an International Oil Pollution Prevention certificate and carry an oil record book. A recent agreement with The Seychelles to jointly manage and patrol 400,000 square kilometres of ocean between the two island chains bolstered Maritime security (figure 8).

Figure 8: Mauritius and Seychelles Exclusive Economic Zones (EEZ)



Source: Mauritius Economic Development Board

Seychelles

The ocean economy is also the primary driver of economic growth in the Seychelles. The island nation positioned sustainable development and safeguarding of its territorial waters as apex priorities in their National Development Strategy. The country established an entirely new ministry dedicated to the blue economy and tasked it with oversight of strategy implementation. The island set out its 2018 – 2030 blue economy roadmap.[44] This framework commits to a strong focus on four key strategic priorities: creating sustainable wealth, sharing prosperity, securing healthy and productive oceans, and strengthening the enabling environment.

In support of these objectives, The Seychelles launched an extensive investment drive. It issued the world's first Blue Bond, which raised US $15 million from international investors. It then pioneered a US $21 million debt-for-conservation swap in 2016 to establish the Seychelles Conservation and Climate Adaptation Fund. This Fund supports marine innovation and protection and climate adaptation initiatives.

The country places a heavy emphasis on innovation and technology and has completed spatial planning for more than 20% of its maritime domain. The Seychelles represents a model for other African countries, by presenting to the AU its strategy and measures. The AU ultimately adopted many of these measures in its AIMS 2050 strategy for the continent.

South Africa

South Africa's blue economy roadmap, Operation Phakisa was launched in 2014 not only to avoid further harm to the country's ocean waters but also to reverse environmental damage and foster a productive and sustainable ocean future.[45] It aims to generate R177 billion additional GDP and create more than 1 million jobs. The roadmap is closely linked to the country's National Development Plan and focuses on four critical areas for unlocking economic value and growth:

1. Marine Transport and Manufacturing
2. Offshore Oil and Gas Exploration;
3. Aquaculture
4. Marine Protection Services and Ocean Governance.

The six years since the launch of the Plan saw progress in the form of discovery of two large offshore gas deposits, establishment of several large aquaculture projects and investment in the construction and revamping of several ports to improve trade flow. Ship repair and manufacturing facilities also received much-needed investment.[46]

Figure 9: Operation Phakisa growth forecast

	GDP, R bn			Jobs, 000	
	2010	2033	CAGR, %	2010	2033
Marine transport and manufacturing	16	42-61	6%	15	40-56
Tourism	15	25-35	4%	90	150-225
Offshore oil and gas	4	11-17	9%	0.4	0.8-1.2
Construction	8	20-21	4%	162	390-407
Renewable energy	0	14-17	25%	0	0.9-1.1
Fisheries and aquaculture	7	10-16	4%	30	170-250
Communication	4	7-10	4%	19	35-52
Desalination	0	0.1-0.1	1%	0	1.6-1.6
Marine protection services	0	TBD	-	0	TBD
Total	54	129-177		316	788-1 004

Source: Operation Phakisa

Momentum eventually slowed, and progress along the roadmap is far short of its envisaged contributions to GDP and jobs. Nevertheless, the operation received new impetus in the country's COVID-19 economic recovery plan. Given the government's severely constrained finances, rejuvenating the blue economy plan will require extensive private sector buy-in and investment.

What distinguishes Mauritius, the Seychelles and South Africa from many other African countries is that talk ultimately led to plans, which have been implemented, albeit with varying degrees of success. It is important to note that these three countries all have greater access to resources and better-developed infrastructure, which enabled them to be first to implement.

Countries such as Ghana, Kenya and Nigeria are still at the early stages of developing their blue economy agenda but have ambitious strategies for growth. Nigeria plans to build Africa's largest floating dockyards and operate its ports 24 hours a day. The reality of their situations demands overcoming severe challenges. Piracy off the African west coast appears to be growing exponentially[47], while Ghana has seen a dramatic decline in fish stocks due to an inability to police its waters effectively.[48]

The story is similar for poorer countries such as Sierra Leone. With only two coast guard vessels available to monitor 600 fishing ships, the state loses an estimated US $29 million to illegal fishing each year. China pledged US $2.7 billion in blue economy financial support to Madagascar, while Japan committed to assist the continent in reducing marine plastics.[49] While such aid is welcome, each state must build momentum from within, and jointly under the AU. Co-opting the private sector to drive innovation and investment will generate enormous upside for private business and investors under the right stewardship, despite the many challenges noted above.[50]

Sectors set to benefit most

The private sector sees increasing opportunities to capitalise on government priorities such as in the aquaculture and renewable energy sectors. As noted earlier, opportunities to leverage operational shortfalls and gaps such as maritime security are also emerging. Figure 10 outlines five of the sectors set to benefit most from a blue economy drive:

Figure 10: Blue economy sector upside potential

Blue Economy Sector	Potential	Sources of Upside Potential
Fisheries and aquaculture	High	Growing global population to require greater ocean protein. Depleting fish stock will drive prices higher, but also create demand for aquaculture supplements.
Tourism	Medium	While tourism will recover strongly post-COVID, the barriers to entry remain relatively low, with idle capacity quick to come back online.
Renewable energy	High	An unreliable electricity supply is one of the continent's greatest investment deterrents and the declining cost of generation makes it a sector with attractive returns.
Marine protection services	Medium	Most African governments will remain fiscally squeezed over the medium to long term, preventing them from investing sufficiently in marine patrols. This opens the door for private sector entrants who can command a premium.
Marine transport and manufacturing	High	Global ship volumes currently exceed demand. This coupled with lower trade volumes on the back of slower global growth suggest marine transport and manufacturing should remain subdued over the medium term.

By overlaying the sectoral focus against each country’s strategic thrust and challenges, specific opportunities emerge. In Mauritius, government financial support for buyers of fishing boats and equipment is likely to provide a boost for manufacturers and suppliers. In the Seychelles, funding made available for technology and innovation in the blue economy by issuing the Blue Bond should be a boon for technology-driven companies that focus on spatial mapping and big data. Capital raised through such instruments also drives investment banking advisory work. Finally, while sustainable energy investment is a priority for all three countries, South Africa's chronic electricity shortages force the state to relax its stranglehold over power generation, opening it to far greater private sector participation. From each of these examples, it is clear that governments lean increasingly on the private sector to drive growth, and the opportunity pipeline looks promising.

5. Should investors be getting excited?

The COVID-19 pandemic forced African governments to reprioritise their focus and spending. This reality is likely to blunt interest in the continent's blue economy over the near term. However, the growing realisation that unlocking this potential could be a game-changer is expected to renew momentum for building their blue economies through public-private partnerships, as is the case in South Africa.

Current fiscal constraints will limit government investment in crucial infrastructure such as electricity, ports and patrol vessels. To offset the lack of public sector resources, African governments may focus attractive investment incentives on critical sectors. This tactic would draw the private sector in to help build the institutions and infrastructure necessary to implement their blue economies.

To develop large energy deposits, supermajors in the oil and gas sector like ExxonMobil and Total formed lucrative joint ventures with the Mozambican and South African governments and local private sector companies. By leveraging scale and industry expertise, these ventures offset the public sector's lack of skills and resources. They promise to deliver mutually beneficial returns without high cost to the environment.

On a smaller scale, Norwegian impact investor Willing Hands sank US $2 million into Burundi to install and produce a 1,000 metric ton Nile tilapia farm. Willing Hands is pursuing similar aquaculture ventures in Malawi, Tanzania and Uganda.[51] As with big oil players, their successful entry is contingent on strong expertise and the ability to raise capital to build infrastructure. Such ventures embody significant spinoffs for smaller companies and thus for local employment. They need smaller, entrepreneurial local businesses to support projects. Most governments require a degree of local sourcing before approving large projects.

In short, the upside potential of the continent's blue economy strategy is significant. Still, investors will likely concentrate their efforts in countries that already have a strong roadmap in place, and where there is sufficient infrastructure for logistical support. Mauritius, Seychelles and South Africa are likely to be at the front of the queue for investment.[52] The following sectors are likely to attract the most interest across the spectrum of investment flows:

Country	Investment type	Investment sectors
Mauritius	Mauritius' highly developed financial sector, with its bias toward liquid financial service providers and broad Africa coverage, will benefit most from portfolio inflows.	Equity investors, pension funds and sovereign wealth funds are likely to be attracted by the growth inspired returns and the ease of which funds can enter and exit. The scale of economic returns from the blue economy relative to the size of the market should entice value investors. This transition will surface in the form of higher corporate credit demand for project funding.
Seychelles	The country is a leader in capital market debt issuance for the blue economy. It will likely continue to tap the market given the low yield environment.	Institutional debt investors, with longer investment horizons, could see the sovereign issuances as a safe option with healthy, market-beating returns given that the economy (tourism) will have recovered by the time of maturity. The low yield environment makes sovereign debt service cost far more affordable, and the country has a proven track record.
South Africa	This country is likely to be the primary beneficiary of FDI given the scale and depth of its markets. Recent large offshore gas finds require significant inward capital flows for long term fixed projects.	This is one of the continent's largest recipients of FDI. Recent gas deposit discoveries, combined with the government's easing of private sector participation hurdles for renewable energy projects, should see more stable fixed investment inflows to fund infrastructure. The transition will lead to a more stable currency and greater investor certainty, which will spur broader equity and debt interest.

One key development to monitor over the medium term is the implementation of AfCFTA, which could provide a significant tailwind to the maritime and aquaculture sector. Another important trend to watch is the pace at which governments turn their attention back to their blue economy commitments as the pandemic begins to recede. This will signal how serious they are about realising their blue economy ambitions, and indicate how much the private sector stands to benefit.

Conclusion

The preservation and sustainability of our oceans are often portrayed as antithetical or counterproductive to economic extraction. The blue economy trend turns this notion on its head. Sustainability does not need to be at the expense of productivity. A blue economy aims to achieve a sustained balance between economic growth and environmental preservation.

The blue economy trend is not a silver bullet that will vanquish lacklustre growth or overcome the many policy and governance shortfalls on the continent. Instead, it provides a long-term platform from which African countries can sustainably and responsibly extract value from the ocean environment for generations to come.

The likely spinoffs for savvy investors are significant. Blue economy policy on the continent, while still in its infancy, is poised to greatly increase private sector investment participation. Incentives in the energy sector already attract FDI inflows. New financial instruments such as blue bonds offer appealing returns and accelerate momentum in the capital markets. However, asset class performance appears to vary widely across markets. The inherent risks are undeniable. Government fiscal constraints, policy flip-flopping and the dearth of enabling infrastructure will force investors to exercise patience. The returns will come, but only to long-term investors nimble and responsive enough to adapt their investment and operational strategies to the challenges of uncharted waters. Nevertheless, the increasingly strong focus on entrenching the principles of a blue economy will attract increased investor interest. If this trend proves sustainable, it will propel the continent's growth trajectory upward.

Given the accelerating rate of climate change, time is running out for countries to launch their transition toward a blue economy. Success will demand appropriate inclusion of the private sector. As policy momentum rises across the continent, the blue economy will be a game-changer for Africa's marine sector under AfCFTA.

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