UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

Promoting Sustainable Intra-African Export Growth for Cabo Verde's Small and Medium-sized Enterprises through the Blue Economy

Technical cooperation outcome

UN trade & development
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Abstract

Cabo Verde — a small island economy subject to a fragile ecological system, natural hazards and the looming threat of climate change — can best safeguard and extend its social development progress by integrating it growth into a trade-based economy that respects the ecological boundaries of its islands. Given its small domestic market size and structural trade deficit that marks the country's external trade, expansion of exports, on both the intensive and extensive margins, will play a vital role. In this regard, the African Continental Free Trade Area (AfCFTA) offers unique opportunities, particularly since Cabo Verde's trade with the African region, especially ECOWAS, is very modest. Additionally, global supply chains are experiencing headwinds following the COVID-19 pandemic, the ongoing war in Ukraine and the Middle East, and rising geopolitical tensions between the United States of America and China.

This report examines the economic and ecological challenges facing Cabo Verde in increasing goods exports, particularly from small- and medium-sized enterprises (SMEs) to the Africa region. It analyzes the country's dependence on tourism and fish (tuna) exports, highlighting the vulnerability of these sectors to a fragile environment, climate change and global economic shocks. The report also explores the potential for expanding exports to other African countries through regional value chains, as well as developing a sustainable Blue Economy that leverages the country's marine resources while protecting the environment and strengthening trade with other African countries. To support these efforts, the report proposes a Blue Economy Entrepreneurial Ecosystem (BEE), a framework for supporting SMEs in Cabo Verde, and recommends specific policies for promoting sustainable development and economic diversification in a regional context.

Executive summary

This report examines the opportunities and challenges associated with expanding exports from small- and medium-sized enterprises (SMEs) in Cabo Verde, particularly within the context of the African Continental Free Trade Agreement (AfCFTA). It focuses on developing a sustainable Blue Economy, leveraging the country's marine resources while respecting its ecological boundaries.

This executive summary provides a birds-eye view of this report, following the structure of its seven sections.

Section 2: Ecological fragility of the Blue Economy

Section 2 of the report examines the ecological boundaries within Cabo Verde, focusing on the ocean (blue) economy perspective and highlighting the vulnerabilities the islands face.

Cabo Verde's geographical location classifies it as having a hot desert or hot semi-arid climate, making it part of the Sahara/Sahel region. Its geographic position and climate create unique ecological challenges for the country. While temperatures are moderated by the ocean somewhat, the islands are exposed to extreme weather events, including desertification, droughts, heavy rains, and rising sea-levels.

An analysis of historical rainfall data from 1910 to 2022 indicates a long-term declining trend, further emphasizing the growing challenges posed by climate change. The decline in rainfall, coupled with limited freshwater availability, puts a significant strain on water resources, impacting livelihoods, infrastructure and agricultural productivity. Data from the World Bank reveals that a substantial 35 per cent of Cabo Verde's renewable water resources are withdrawn annually for agriculture, significantly higher than the median for other African small island developing States (SIDS).

Cabo Verde's ecological footprint exceeds its biocapacity, resulting in a biocapacity deficit. In 2019, the country's ecological footprint per person was 1.3 global hectares, while its biocapacity was only 0.4 global hectares per person. This deficit suggests that Cabo Verde's resource consumption is unsustainable, exceeding the capacity of its ecosystems to regenerate. Comparing Cabo Verde with other African SIDS reveals that it has one of the lowest biocapacities in the group, further emphasizing its ecological vulnerability.

The report underscores the importance of the ocean economy for Cabo Verde, but also acknowledges its vulnerability. The global ocean economy is facing threats from over-fishing, pollution and climate change, raising concerns about its long-term sustainability. While Cabo Verde has designated some (too small) portion of its territorial waters as Marine Protected Areas, it still faces challenges from plastic pollution and the impacts of climate change on marine ecosystems.

Section 3: Trade and global value chain fragility

Section 3 examines Cabo Verde's trade and integration into global value chains (GVCs), particularly within the context of regional integration, especially within ECOWAS.

Cabo Verde's trade is characterized by structural trade deficits, with imports significantly exceeding exports. In 2022 and 2023, Cabo Verde exported total products worth US $42 and $54 million, respectively, while importing goods worth US $910 and $980 million, respectively. This trade imbalance highlights the country's reliance on imports and the need to increase export earnings.

Cabo Verde's exports are heavily concentrated in a few sectors, primarily tourism and fisheries. Tourism accounts for the majority of service exports, while fish exports, mainly tuna and mackerel, constitute a significant portion of merchandise exports. This dependence on primary commodities makes Cabo Verde vulnerable to global price fluctuations and economic shocks.

Cabo Verde's trade is primarily oriented towards Europe, with limited trade with other African countries. On average, 86 per cent of the country's goods exports are destined for Europe, while only 4.3 per cent go to the rest of Africa. Similarly, 74 per cent of imports originate from Europe, with only 7 per cent sourced from Africa. This limited regional integration presents a challenge for Cabo Verde to benefit from the AfCFTA and expand trade within the African continent.

Participation in GVCs can offer opportunities for increased exports, job creation and technological upgrading. However, Cabo Verde's participation in GVCs has declined since the late 1990s, remaining concentrated in low value-added activities, such as seafood processing and textile manufacturing.

The findings of Section 3 highlight the fragility of Cabo Verde's trade profile and its limited integration into regional and global value chains. The section emphasizes the need for policies that promote export diversification, strengthen regional trade ties and enhance participation in GVCs, particularly in higher value-added activities. Addressing these challenges is crucial for Cabo Verde to achieve sustainable economic growth and reduce its vulnerability to external shocks and a structural trade deficit.

Section 4: Opportunities for export expansion

Section 4 of this report centers on identifying new opportunities for export expansion, particularly within the African region. It examines existing export patterns, analyzes potential unrealized export opportunities and explores the extent to which these opportunities are located in Africa.

It finds that the top short-term export products from Cabo Verde in 2022 included a mix of primary commodities and manufactured goods, indicating some progress in diversification beyond fish and tourism. These products are:

1. Prepared or preserved fish
2. Non-fillet frozen fish
3. Fish fillets
4. Ships, port equipment and parts, and port services
5. Non-ferrous base metal waste and scrap
6. Worn clothing and other worn textiles
7. Fresh, chilled, or frozen fish
8. Animal oils and fats
9. Footwear

Despite this diversification, there is a limited scope for sustainable increases in raw fish exports. The key constraints are the finite nature of marine resources and the potential negative ecological consequences of intensified fishing. This underscores the need to prioritize sustainable fishing practices, particularly for the dominant export species, skipjack tuna, which while not currently threatened by overfishing, faces a low margin of safety.

Cabo Verde has several potential long-run export opportunities, particularly within the context of its Blue Economy and regional integration with Africa. These opportunities include value-added fish products and artisanal fishing. Moreover, Cabo Verde has significant untapped potential in its ocean economy, especially in high-value sectors beyond fisheries, such as maritime services. The country could develop logistics and transportation services, potentially serving as a regional hub for maritime trade.

Furthermore, Cabo Verde has abundant solar and wind resources, presenting potential for developing a renewable energy production and export sector. The country has already made progress in solar power development and has commissioned a feasibility study for green hydrogen production. Exporting renewable energy to other African countries could be a viable long-term opportunity, particularly as demand for green energy increases.

In addition to energy, Cabo Verde could potentially export desalinated water to other African countries facing water scarcity. This could become a viable opportunity in the long run, given increasing demand due to climate change and the growing importance of West African water supply chains.

This section also highlights the importance of the digital economy for Cabo Verde's development and its potential role in expanding exports. This could involve promoting digital entrepreneurship, developing e-commerce platforms for SMEs, and leveraging digital channels to access new markets.

Overall, Cabo Verde has a range of potential long-run export opportunities, primarily linked to its Blue Economy and its strategic location within Africa. However, realizing these opportunities requires a focus on sustainable development, investment in key sectors, such as renewable energy and information and communicaton technology (ICT), and a strategic approach to regional integration through the AfCFTA.

Section 5: The Blue Economy Entrepreneurial Ecosystem approach

Section 5 introduces the concept of a Blue Economy Entrepreneurial Ecosystem (BEE) as a strategic framework for Cabo Verde to expand its exports, particularly in the context of the AfCFTA. This section argues that a robust BEE is essential for Cabo Verdean SMEs to capitalize on the country's export potential while respecting its ecological boundaries.

Simply increasing production and exports of existing products, referred to as growth on the intensive margin, is not a sustainable approach for Cabo Verde. This is because intensive growth, such as increasing fish catches, is limited by finite resources and the potential negative environmental consequences, as noted in the analysis of Cabo Verde's fishing industry, which can be found in earlier sections of the report. Cabo Verde's reliance on primary commodities makes its economy vulnerable to external shocks, such as price fluctuations and demand shifts. Thus, the need is for a more sustainable model, emphasizing that the challenge for Cabo Verde is not to achieve traditional economic growth, but rather to support an ecosystem of eco-entrepreneurs who can find innovative solutions for a post-growth society.

The BEE is a solution that can address these challenges and promote sustainable economic development. It is a network of interconnected elements that support entrepreneurial activity. This ecosystem includes financial capital, human capital, market size, the ocean economy, maritime resources, the business environment, governance, and resilience. SMEs are particularly well-suited to capitalize on opportunities within the Blue Economy due to their adaptability, specialized knowledge, and ability to create jobs and foster sustainable livelihoods.

Section 6: Evaluating Cabo Verde's BEE

Section 6 of the report proposes and measures Cabo Verde's BEE. It identifies eight components of the BEE: financial capital, human capital, market size, ocean economy, maritime resources, business environment, governance, and resilience.

The key argument is that developing a robust BEE is crucial for Cabo Verde to expand exports, especially those related to the ocean economy. To assess the BEE, a variety of measurable indicators are used, and Cabo Verde is benchmarked against other African small island developing States (SIDS).

It is evident that while Cabo Verde's BEE is relatively strong in some areas, such as governance and ocean economy, it faces significant challenges in terms of resilience and vulnerability to external shocks. The following observations highlights these challenges:

- Dominance of industrial fishing: The dominance of industrial fishing, often by foreign fleets, poses a significant challenge to the growth and development of the artisanal fishing sector. This dominance limits the opportunities for small-scale fishers and can negatively impact the sustainability of fish stocks.
- Limited financial access for SMEs: While Cabo Verde has the third most developed financial sector among African small island developing States, access to finance remains a significant challenge, particularly for those in the Blue Economy. Limited access to capital hinders business growth, innovation and competitiveness.
- High vulnerability and low resilience: Cabo Verde's BEE faces high vulnerability to external shocks, ranking as the most vulnerable among African island States, according to the United Nations' Multidimensional Vulnerability Index. The country's reliance on tourism and its susceptibility to climate change impacts, such as droughts and biodiversity loss, pose significant threats to its economic stability.
- Social inequality and human capital: Although Cabo Verde demonstrates good progress in human development, high levels of inequality persist. This inequality limits access to education and skilled labor, potentially hindering the growth of SMEs in the Blue Economy that require a qualified workforce.
- Sustainability concerns and environmental impacts: While a positive correlation exists between a strong BEE and positive environmental outcomes in some areas, there are concerns. Notably, better-performing BEEs in African island States correlate with reduced renewable energy shares and larger ecological footprints. This highlights the need for careful consideration of sustainable practices within Cabo Verde's BEE to ensure its long-term viability and minimize negative environmental consequences.

Given the above opportunities and challenges, six broad, concrete policy recommendations have been made.

Section 7: Conclusions and recommendations

Finally, this report comes to one of the central questions that it set out to answer: How can Cabo Verde best position itself so that its private sector, in particular the SME sector, can expand the country's exports through trade integration with other African countries, in light of the AfCFTA?

To put the answer in perspective, the following profile of Cabo Verde's trade with Africa was sketched:

- Only about 4 per cent of Cabo Verde's exports go to other African countries — making the country very dependent on only three export markets: Spain, Italy and Portugal, which are, on average, located more than 3,000 km away.
- Even less is traded with the closest African region, ECOWAS, where over the last three years total exports and imports amounted to US $4 million each, approximately.
- Exports to other African countries have been declining since 2018.
- Cabo Verde runs a trade deficit with the rest of Africa — importing more from the continent than exporting to it.
- Cabo Verde's main goods exports to African countries are heterogenous, consisting largely of goods in which the country does not have a comparative advantage. Less than 1 per cent of Cabo Verde's fish exports, for example, is destined for the continent.
- Over the past three years, its single largest African trade partner has been Senegal, from which Cabo Verde also imports fish for local consumption and processing for re-export.

- The main reason for the low levels of trade between Cabo Verde and the rest of Africa, particularly the ECOWAS region, is that the countries' trade is very similar: Most countries' imports are dominated by petroleum (energy) imports and natural resources and petroleum exports, such as minerals, gold, fuel, and cocoa, cotton and fruit and nuts. Relatedly, high transaction (and transport) costs within the region, and lack of knowledge of trade opportunities and effective trade facilitation mechanisms are inhibiting growth of trade where possibilities exist.

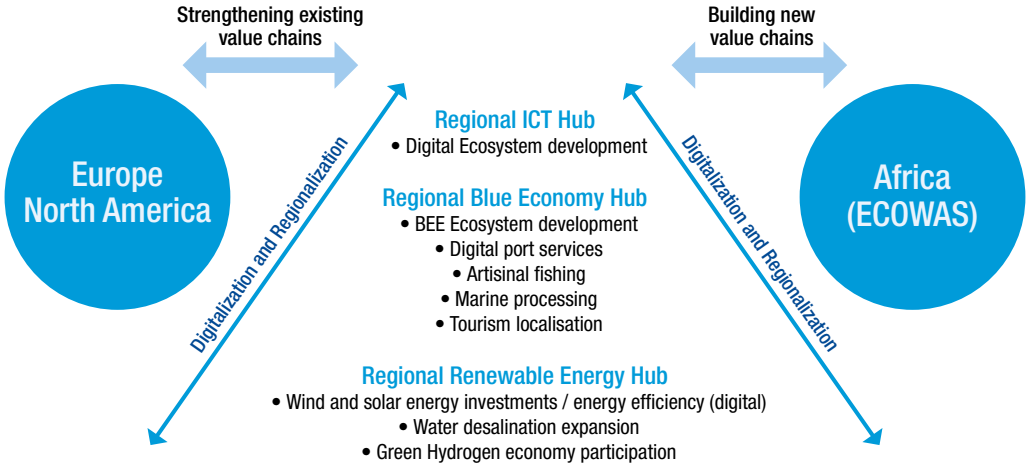
As far as the possibilities or opportunities for increased trade between Cabo Verde and the rest of Africa (ECOWAS) are concerned, this report notes that there are opportunities for Cabo Verde to export more fish, clothing, and recycled metals and waste to ECOWAS countries. These are opportunities that correspond to the revealed comparative advantages of Cabo Verde. It is also noted that the opportunity to export ICT and port services, and port services that are based on ICT improvements (e.g. digital port management) may not only provide an export opportunity directly for these industries, but also help to increase transport efficiency, and hence open up possibilities for other trades to take place.

Also, over the longer term, given that several ECOWAS countries import mineral water, and some import electricity, Cabo Verde's investments in renewable energy and desalinated water may open up opportunities for the country to export energy and water to ECOWAS in the future. With climate change and global green industrial policies, demand for these resources — along with the significance of West Africa's green energy and water supply chains — is expected to grow.

It is also noted that there are opportunities for Cabo Verde to import more from Africa (ECOWAS) and thus potentially shorten and de-risk its supply chains in certain areas. Under the provision that trade and transport costs in ECOWAS decline, there are opportunities to shift imports of petroleum oil and cotton, nuts, cocoa, and fruits from Europe and elsewhere to African sources, as all of these goods are exported by many ECOWAS countries.

Finally, given that trade levels are so low (and have been for decades), it would be unreasonable to expect that Cabo Verde would, over the short term, significantly change its trade patterns. This will only happen, over the medium to longer term, if the benefits from AfCFTA start to materialize, and if the Cabo Verde government adopts a deliberate strategy of export diversification and AfCFTA integration. The diagram below proposes the outlines of such a strategy, which represents a regional diamond strategy.

Diagram 1
Proposed outlines for a regional diamond strategy towards AfCFTA



Source: UNCTAD.

This diagram shows that the regional export strategy towards AfCFTA should consist of three integrated layers: The foundation in energy and water; the center built around the blue economy and the blue economy entrepreneurial ecosystem as described and measured in this document; and the top, or spearhead, ICT/ digitalization of the economy. The diagram suggests the integration of digital throughout these layers, as well as the regionalization of all layers. As such, the strategic aim should be to establish Cabo Verde as a regional hub for ICT, the Blue Economy and Renewable Energy.

The analysis in this report shows that this is feasible, and that Cabo Verde is likely to possess a latent and dynamic comparative advantage in the region in these three areas. For instance, it has one of the most affordable, accessible and developed ICT sectors in the ECOWAS region, as well as the highest level of marine resources and the best fisheries governance, and its renewable energy potential is acknowledged. Moreover, in ICT, renewable energy and tourism, Cabo Verde has strong and historical ties with the European Union, from which it can access the know-how, finance and foreign direct investment (FDI) and leverage them to expand access and value added to the regional ECOWAS economy.

The immediate short-term actions to turn this strategy into results will be to:

- Build strong trade facilitation institutions and support, specifically for SMEs, who find it difficult and expensive to export;
- Invest in ICT, especially fast broadband access, which is crucial for business performance in the digital economy;
- Expand access to finance, particularly for SMEs;
- Focus more on artisanal fishing as a sustainable, poverty-reducing and job-creating local SME sector. Moreover, according to the World Bank, 59 per cent of the processing work in the African fisheries sector is done by women; and
- Adopt and promote BEE framework as set out in this report.

In conclusion, the report presents a comprehensive analysis of the opportunities and challenges facing Cabo Verde in its pursuit of export expansion through a sustainable Blue Economy. It emphasizes the need for strategic policy interventions that strengthen the BEE, enhance resilience and leverage regional integration opportunities within the AfCFTA. By addressing the key challenges and harnessing the identified opportunities, Cabo Verde can foster sustainable economic growth and social development.

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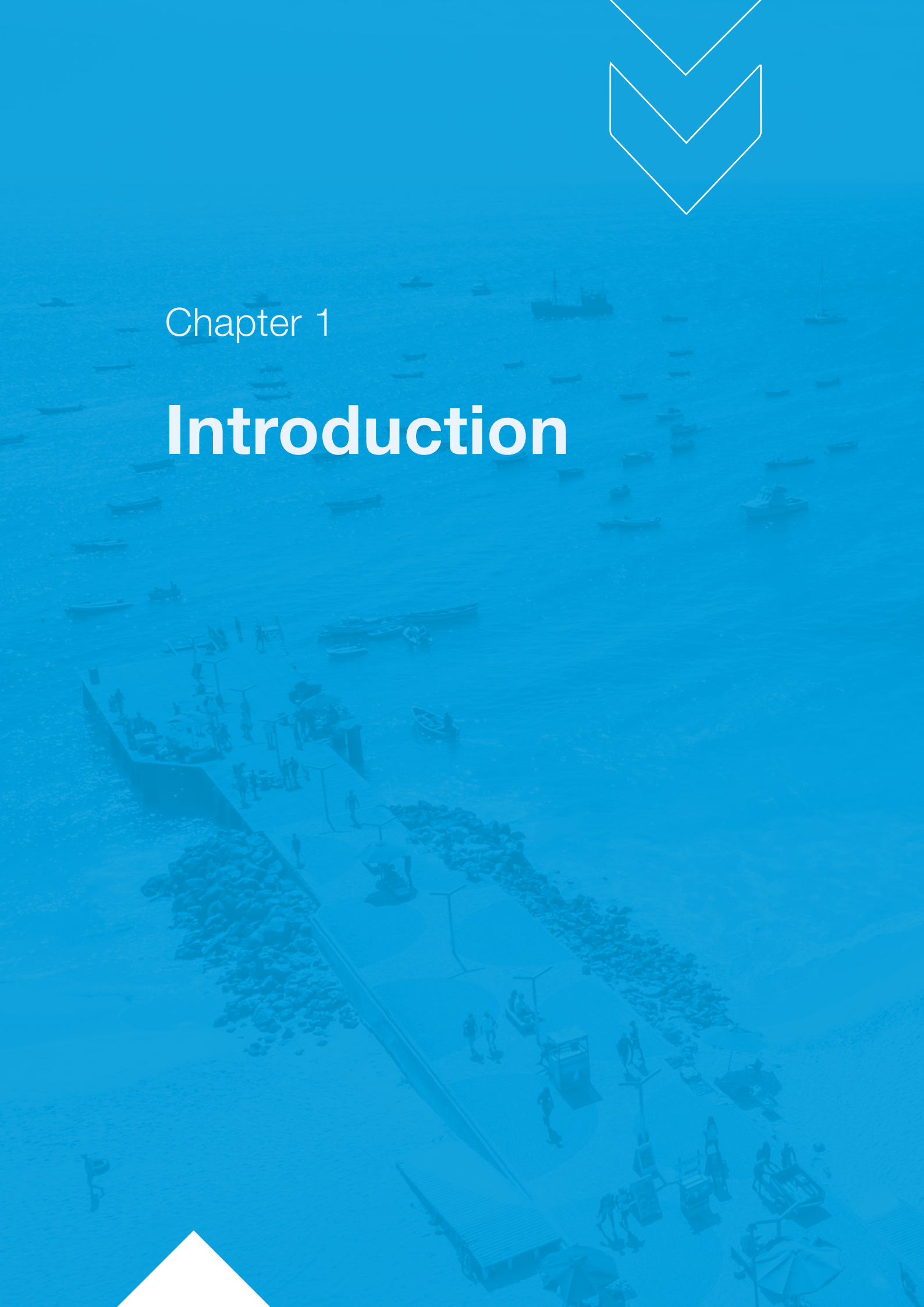
Abbreviations

AfCFTA	African Continental Free Trade Area
BEE	Blue Economy Entrepreneurial Ecosystem
COVID-19	coronavirus disease 2019
ECOWAS	Economic Community of West African States
EES	Entrepreneurial Ecosystem
EEZ	exclusive economic zone
FDI	foreign direct investment
FAO	Food and Agriculture Organization of the United Nations
FPA	Fisheries Partnership Agreement
FVA	foreign value added
GDP	gross domestic product
GNI	gross national income
GVC	global value chain
HDI	human development index
ICCAT	International Commission for the Conservation of Atlantic Tunas
ICT	information and communications technology
ILO	International Labour Organization
IMF	International Monetary Fund
ITC	International Trade Centre
IUU	Illegal, Unregulated and Unreported (fishing)
LME	large marine ecosystem
MPA	marine protected area
ODA	overseas development assistance
OECD	Organisation for Economic Co-operation and Development
PCI	Productive Capacities Index
PFAS	per- and polyfluoroalkyl substances
RCA	revealed comparative advantage
RFMO	regional fisheries management organization
SDG	Sustainable Development Goal
SIDS	small island developing States
SME	small- and medium-sized enterprises
SSF	small-scale fisheries
TAC	total allowable catch
UN-OHRLLS	United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States
UNCLOS	United Nations Convention on the Law of the Sea
UNCSD	United Nations Conference on Sustainable Development
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
WMO	World Meteorological Organization
WTO	World Trade Organization

Chapter 1

Introduction



The Republic of Cabo Verde (henceforth Cabo Verde[1]) is an ecologically fragile small island state, vulnerable to natural hazards and threatened by climate change. To safeguard and extend its social development, Cabo Verde could foster an open, trade-based economy that respects the ecological boundaries of the islands. As a middle-income country with particular social shortfalls, as measured by the distance from various Sustainable Development Goal (SDG) targets, there is a need for continued economic growth on the islands. In this context, expanding exports —both on the intensive and extensive margins — will play a vital role, especially considering the small size of the domestic market.

In developing a strategy with appropriate incentives and instruments to support such export expansion by domestic small and medium-sized enterprises (SMEs), three perspectives are vital. The first perspective is ecological, particularly from an ocean (blue economy) standpoint. This is because all life in Cabo Verde depends on a fragile natural ecosystem, which is already in ecological overshoot due to the footprint of economic activity that exceeds the islands' biocapacity.

The second perspective is that of the region, specifically the (West) African region, in the context of the African Continental Free Trade Area (AfCFTA). Cabo Verde suffers from a structural deficit on its trade balance, which creates a challenge of trade deficit funding. At the same time, Cabo Verde hardly trades with other African countries, its closest neighbors. The value and volume are a small percentage of its overall trade, which is overwhelmingly concentrated with just three European countries: Spain, Italy and Portugal. Most of this trade is consists of tuna exports and tourism. Expanding merchandise exports to Africa offers the chance to diversify exports, not only in terms of destination but also on the extensive margin — moving away from tuna and tourism. This shift would help build trade networks closer to Cabo Verde, potentially reducing the environmental impact of transporting goods and mitigating risks to distant supply chains, in a world where supply chain disruptions have become a rising concern.

The third perspective focusses on supporting export expansion by domestic SMEs. It is well known that SMEs face more obstacles to export than large firms, including challenges such as lack of economies of scale, limited access to collateral and finance, and insufficient experience, among others. However, SMEs, under the right conditions, can successfully export, and with the rise of digital technologies more and more SMEs are "born globals." For Cabo Verde to support export expansion by its SMEs, it will need to strategically prioritize trade facilitation through what can be termed a Blue Economy Entrepreneurial Ecosystem (BEE). This ecosystem differs from traditional Entrepreneurial Ecosystems (EES) by explicitly focussing on the inputs that drive SME incentives and support, as well as the outputs in terms of the ecological ceiling (or boundaries) that Cabo Verde faces, alongside the socio-economic floor (or minimum development outcomes) that need to be attained. As such, the BEE configures the support and development of export-oriented SMEs that will help Cabo Verde eliminate its social shortfalls while respecting the island's ecological boundaries.

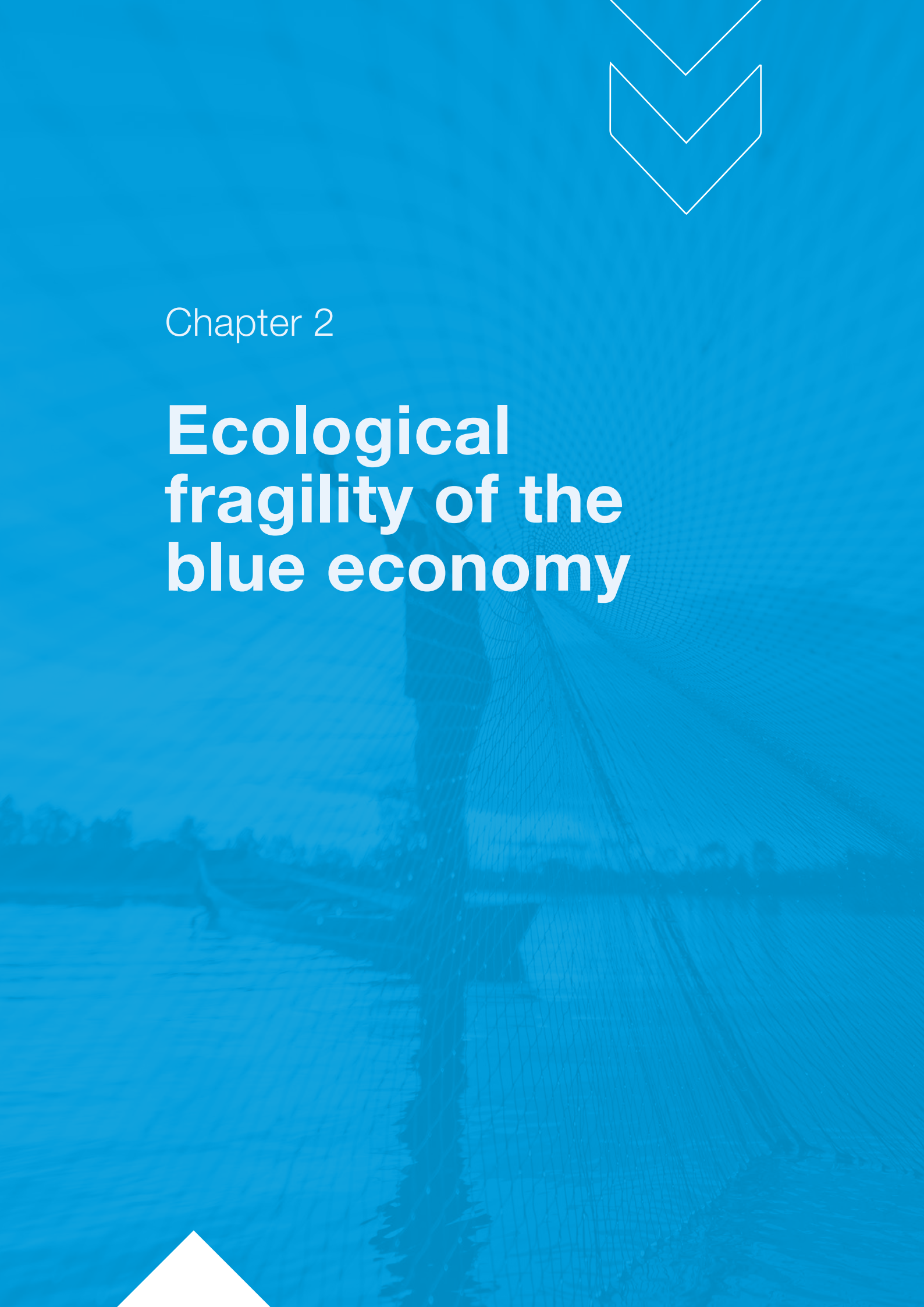
This report elaborates on these three perspectives and draws specific

[1] Formerly known as Cape Verde, the Portuguese designation Cabo Verde has officially been adopted since 2013.

recommendations that support SMEs in Cabo Verde, with appropriate incentives and instruments to increase their exports, especially merchandise, to other African countries. Section 2 describes the ecological boundaries in Cabo Verde from the ocean (blue) economy perspective, noting the vulnerabilities the islands face, including climate change. Section 3 analyses Cabo Verde's trade, integration into global value chains, as well as regional integration, particularly in ECOWAS. Section 4 identifies new opportunities for export expansion. New estimates of potentially unutilized export opportunities are noted and the extent to which these opportunities are located in the region are explored. Section 5 proposes a broad strategic approach to empower the private sector – specifically SMEs – to avail themselves of these opportunities. It proposes the concept of an appropriate *Blue Economy Entrepreneurial Ecosystem* for Cabo Verde and benchmarks it against other African small island developing States (SIDS). Section 6 concludes by outlining all the policy recommendations.

Chapter 2

Ecological fragility of the blue economy



2.1 Overcoming geography and history

The Atlantic Ocean contains various remote archipelagos, one of which is Macaronesia, which "is derived from the Greek term *Fortunate Isles*" (Abulafia, 2019: 483), and consists of the Azores, Madeira, the the Selvagens Islands, the Canary Islands and Cabo Verde (Duarte et al., 2008). The Azores, Madeira and Cabo Verde remained uninhabited until the 15th century, when their strategic location on the sea routes connecting the expanding European empires — at first Portugal — with the New World and Far East, making their settlement and extraction of local resources economically attractive.

For instance, in the decades after 1420, the islands of Madeira were amongst the first to be settled to support the expansion of Portuguese maritime trade and expansion. Abulafia (2019: 485) describes a typical pattern of settlement, extraction and ecological overshoot that would also later mark the initial settlements of other small islands, such as Cabo Verde and Saõ Tomé and Principe:

"*The island's [Madeira's] abundant hardwood became one of its best exports [it] became a centre of shipbuilding [...] followed by wheat, and more importantly sugar: the island was already producing 1,600 arrobas, or about 24,000 kilograms, of sugar by 1456 [...] by 1498 something like 600,000 kilograms of sugar were being sent to Flanders alone.*"

However, Madeira was not initially a "fortunate isle" in this settlement. As Monbiot and Hutchinson (2024: 10) detailed, referring to the work of Moore (2010), sugar production in Madeira peaked in 1506 after which it collapsed, due to the destruction of the islands' forests, which "drove several endemic Madeiran animal species to extinction."

Cabo Verde is a volcanic archipelago composed of 10 islands and 5 islets, covering 4,033 km^2 and has a coastline that stretches 1,121 km, about 500 kilometers off the west coast of Africa, between latitudes 14° 28' N and 17° 12' N and longitudes 22° 40' W and 25° 22' W. The 10 islands are Santo Antão, São Vicente, Santa Luzia, São Nicolau, Sal, Boa Vista, Maio, Santiago, Fogo, and Brava. The islands are divided into two groups based on prevailing Atlantic winds: the Windward (*Barlavento*) and Leeward (*Sotavento*) islands.

The Cabo Verde archipelago was discovered by the Portuguese, settled from 1462 and awarded to Portugal by the Pope in 1493; it was settled for extraction and stop-over purposes to support the expansion of the Portuguese empire. As in Madeira, ecological overshoot was a consequence, as described by Abulafia (2019: 489):

The Cabo Verde Islands *"were stocked with animals, not so much to feed the exiguous population as the sailors who passed by, heading from Europe to the west. However, when livestock was introduced to the Cape Verde Islands, goats and sheep uprooted the plants, the soil no longer retained such water as there was, for rainfall is low; and the landscape became even more parched and bare than it was already."*

Apart from salt, which was used to preserve meat sold to refuelling ships and was sold by English merchants to the cod fishing industry in North America[2], Cabo Verde, unlike Madeira, was resource-poor. However, its strategic position on trade routes between the Americas, Europe and Western Africa, led to it being exploited as a distribution point in the slave trade (Abulafia, 2019). Enslaved people were traded for Cabo Verdean and European goods in West Africa, transported to Cabo Verde, and then distributed to the sugar plantations of Brazil, the West Indies, North America and Europe. Abulafia (2019: 490) notes that "as many

[2] The North American cod was salted with salt from Cabo Verde and then sold to Spain and Portugal, where the salted cod dish called «bacalao» became national dishes (Abulafia, 2019).

as 25,000 African slaves passed through the island between 1500 and 1530."

After the abolishment of slavery in the 19th century, most of the 20th century saw economic stagnation in the islands. While Cabo Verde remained under Portuguese colonial rule until 1975, the colonial government invested little in the islands' development, focusing primarily on maintaining control, rather than promoting economic growth. Furthermore, the islands were frequently hit by severe droughts, leading to widespread famine and emigration. Today, the Cabo Verdean diaspora count more people than the current population of the islands. And efforts to diversify and extend agriculture by cultivating crops, like coffee and sugarcane, failed due to the arid climate and limited arable land. The islands became increasingly reliant on foreign aid to survive.

Fifty years from its independence, Cabo Verde has now become somewhat of a fortunate isle. It is a democratic, politically stable and free society that has achieved solid economic growth and rising prosperity for its more than its half a million population. It has shown that neither geography nor history is destiny. This journey has been marked by various phases of broad socio-economic and accompanying political development. For instance, just after independence, the country adopted a one-party socialist system under the African Party for the Independence of Cape Verde (PAICV). This period was characterized by a strong centralized government and state-led economic policies. In the late 1980s, a new phase commenced when the country began a transition towards multi-party democracy, with the first multi-party election held in 1991. The third phase was in the 1990s and was characterised by a range of economic reforms aimed at liberalizing the economy and attracting foreign investment — including privatization, liberalization and deregulation. It resulted in the successful emergence of tourism as a driver of economic growth. By 2007, the country had achieved middle-income status.

Cabo Verde has gradually entered a new phase of socio-economic development in recent years, catalyzed by the sudden collapse of its gross domestic product (GDP) growth and tourism revenue in 2020 as a result of the COVID-19 pandemic. This highlighted the inherent vulnerability of the islands. The search for a more resilient path of development has drawn attention to environmental and ecological considerations. It is clear from this that the challenge of sustainability and moreover, habitability remains and will become more severe in coming years. The islands achieved their growth and prosperity largely from tourism and the associated foreign direct investment (FDI), and to an extent, from the marine environment by exporting fish. It is not an exaggeration to state that Cabo Verde depends crucially on tourism and tuna for earnings — which are necessary to import much of the energy and food its people consume.

These sources of growth are severely limited when viewed against the pressures they place on the fragile island ecosystems — most notably on scarce water supply, high pollution levels, and threatened biodiversity. At the same time that the islands are exceeding their ecosystem boundaries (see section 2.2 below), the global economy is pushing beyond more and more planetary boundaries. This will have adverse implications in the future, not only due to a higher incidence of natural hazards, but because it will also negatively impact global energy and food — both of which Cabo Verde critically depends on.

There is therefore little scope for significantly expanding the size of the Cabo Verdean economy. Dematerializing production and consumption, such as through digitalization and expanding the digital economy, is one approach that the government is pursuing. However, it is ultimately limited by energy and cost considerations. It is indeed the case that small islands need a new development paradigm, as argued by Akiwumi (2024). In this respect, the challenge facing Cabo Verde is not to pursue traditional growth through encouraging

growth-oriented entrepreneurship and investment, but to enable and support an SME-led eco-entrepreneurial ecosystem that finds innovative solutions for a post-growth society. This society can maintain a high standard of living, democracy and freedom, while not exceeding the islands' ecosystem boundaries and ensuring not just sustainability, but the habitability of the islands for both human and non-human life.

2.2 Ecological boundaries and overshoot

The ecologically fragile position of Cabo Verde is described in this section with reference to a) its desert climate and extent of global warming b) constraints on freshwater availability and c) ecological overshoot.

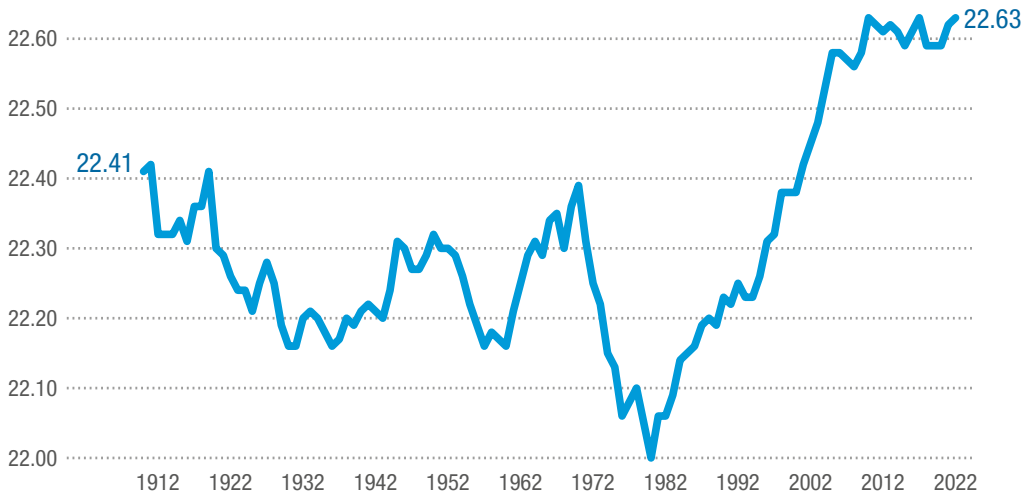
2.2.1 Climate change

The geographic position of Cabo Verde results in it being classified — in terms of the Köppen-Geiger climate classification system — as BWh (hot desert climate) and Bsh (hot semi-arid climate). It can be seen as forming part of the Sahara/Sahel. Mean temperatures range from 23-27°C at sea level, to 18-20°C at altitude, which is somewhat lower than on the African continent due to the effects of the ocean.

Figure 1 shows the 10-year moving average of annual mean temperatures in Cabo Verde for the past century. It also depicts the extent of climate warming experienced by Cabo Verde, showing that the steady rise in annual mean temperatures started in the 1970s. Current temperatures are approximately 0.6°C higher than those of the early 1970s, which is consistent with the World Meteorological Organisation's (WMO) estimate that the near-surface air temperature anomaly in West Africa was 0.64°C in 2023 relative to the 1991-2020 period (WMO, 2024:4).

The mean temperature of 2020 was 22.95°C, the highest on record. The World Bank's Climate Knowledge Portal[3] contains mean projections for temperature increases in Cabo Verde between 2020 and 2099 (as prepared by the Intergovernmental Panel on Climate Change (IPCC)).

Figure 1
Cabo Verde: Warming temperatures, as reflected in annual mean surface air temperature, 1910-2022
(Celsius)



Source: UNCTAD, compilation based on data from the World Bank's *Climate Knowledge Portal*.

[3] Available at https://climateknowledgeportal.worldbank.org/country/cape-verde/climate-data-projections-general.

The IPCC projections depend on the extent to which the world succeeds in mitigating climate change, which is beyond Cabo Verde's control.

The IPCC developed five scenarios[4], referred to as the Shared Socio-economic Pathways (SSPs), each assuming and modelling different CO_2 emissions. Under the scenario for low-carbon emissions (SSP1), it projects that the annual mean surface air temperature in Cabo Verde would increase to 23.86°C, 23.81°C and 23.88°C by 2040, 2080 and 2100, respectively. Under the worst-case scenario — high-carbon, high economic growth (SSP5) — it projects that the annual mean surface air temperature in Cabo Verde would increase to 24.10°C, 25.77°C and 26.58°C by 2040, 2080 and 2100, respectively. Thus, if global efforts to reduce carbon emissions fail, Cabo Verde could see average annual temperatures increase by 4°C.

Warming to that extent would likely have significant implications for its environment, economy and society. The environmental impacts would include:

- More frequent and severe droughts;
- Rising sea levels resulting in coastal erosion (since 1900, the global sea level has risen by about 15 cm);
- Flooding, and saltwater intrusion into freshwater sources;
- Altered rainfall patterns accompanied by more intense storms and flooding; and
- Coral bleaching and the loss of marine biodiversity.

Economic impacts would include reduced crop yields and food security; negative shocks to the tourism industry; and reductions in fish populations and fisheries. Rising sea levels and more frequent extreme weather events could also damage infrastructure, such as roads, buildings and coastal defenses. The social impacts of a 4°C warming in Cabo Verde would include population displacement, as rising sea levels and coastal erosion could lead to displacement of coastal communities; heat-related illnesses, waterborne diseases and respiratory problems; and reduced agricultural productivity leading to increased food prices and higher food insecurity.

Therefore, climate change is a major threat to Cabo Verde. As the World Bank5 stated:

"The country is highly vulnerable to the impacts of climate change. The lack of arable soil (only 10% of the soil is arable) results in high dependency on imports to meet its food needs (80–90%). In addition, the country's coastlines are very vulnerable to rising sea levels and erosion where approximately 80% of the population resides. The coastal areas are also important in promoting and supporting the local tourism industry which is a main driving force behind the country's service-oriented economy."

According to the World Bank's *Climate Change Knowledge Portal*[6], "climatic models ran during the NAPA assessment for the period 2008-2012 have shown that Cabo Verde´s natural vulnerabilities, along with their social and economic implications, are very likely to be exacerbated by climate-related disruptions in the next decades. These include more frequent extreme events like storms, floods and droughts, as well as shorter rainy seasons, with immediate impacts on livelihoods, infrastructure, sanitary conditions, recharge of reservoirs, and crop productivity." The Government of Cabo Verde indicates that the islands are "particularly exposed to increasingly extreme weather events, desertification of land and persistent droughts, occasional but severe and highly damaging heavy rains (most recently in September 2020), and sea-level rise." (Government of Cabo Verde, 2021:8).

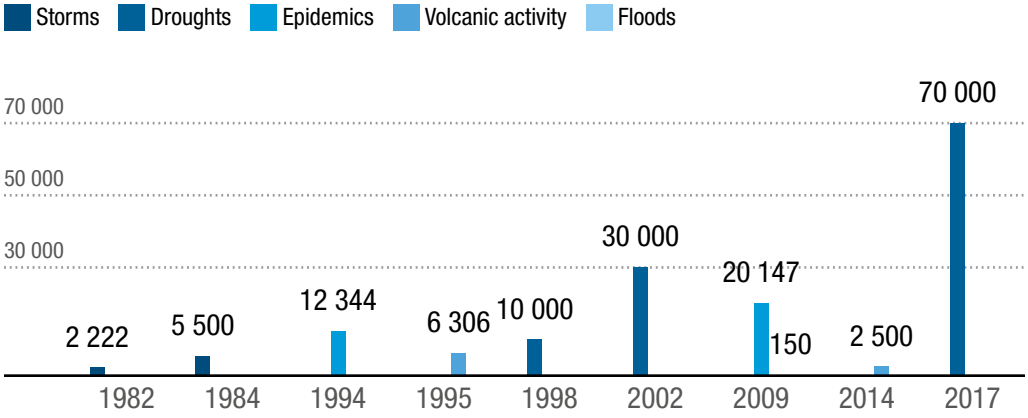
Figure 2 depicts the type of hazards that are most frequent and the number of people that have been affected by these between 1980 and 2020.

[4] See, for instance, the IPCC AR6. Available at: https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_TS.pdf.

[5] See https://climateknowledgeportal.worldbank.org/country/cape-verde.

[6] Available at https://climateknowledgeportal.worldbank.org/country/cape-verde/vulnerability.

Figure 2
Cabo Verde: Natural hazards, 1980–2020
Number of People Affected



Source: UNCTAD, compilation based on data from the World Bank's *Climate Change Knowledge Portal*.

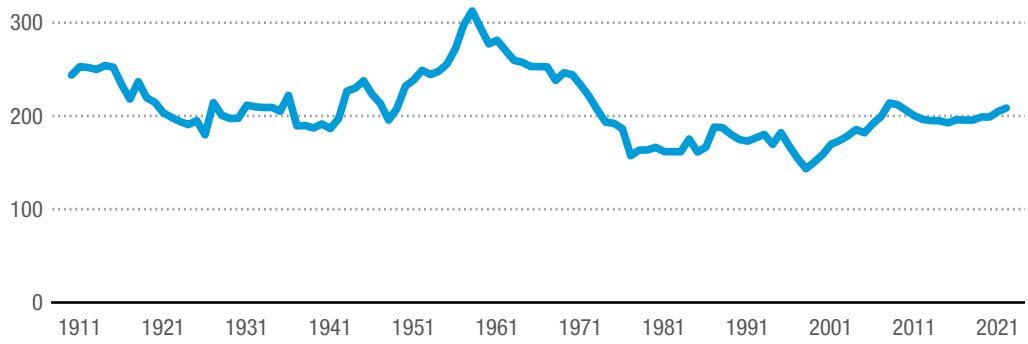
The WMO (2024: ii) estimates that climate adaptation "will cost US $30 billion to $50 billion per year over the next decade, 2 per cent–3 per cent of the regional GDP." If the upper share of 3 per cent of GDP is calculated for Cabo Verde, it implies a cost of about US $78 million, which was approximately 15 per cent of the annual total government budgetary expenditure in 2023.

2.2.2 Limited freshwater availability

When considering the ecological boundaries from a water perspective, it is instructive to start with the main source of renewable freshwater: Rainfall. Since the first settlement in Cabo Vere, its geographical location has posed a fundamental challenge, as the islands have a dry, desert climate. This, in turn, results in low annual rainfall and a vulnerability to drought — challenges that, as previously mentioned, are expected to worsen with rising temperatures.

Annual rainfall in Cabo Verde ranges from 80–300 mm (lowlands) to more than 1,600 mm (highlands) (Duarte et al., 2008: 455). The long-term 10-year moving average in terms of rainfall are shown in figure 3.

Figure 3
Cabo Verde: Long-run declining rainfall, as reflected in annual rainfall, 1910–2021
(mm per year, 10-year moving average)



Source: UNCTAD, compilation based on data from the World Bank's *Climate Knowledge Portal.*

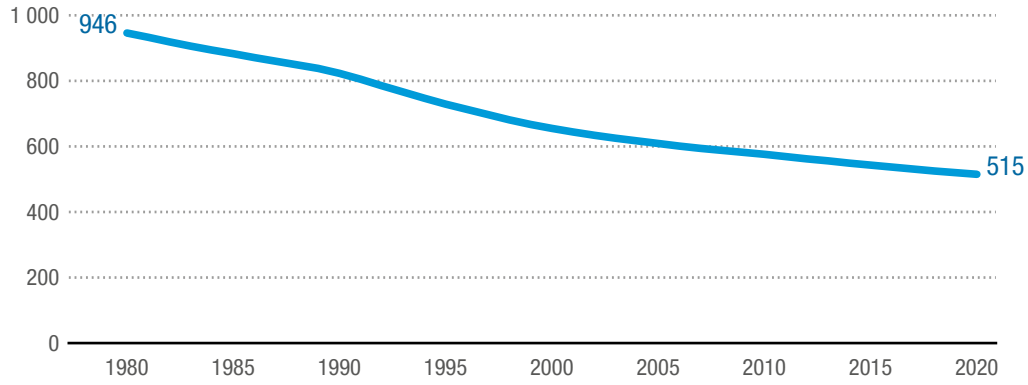
The severity freshwater scarcity and its potential decline depends on the islands' population size, the nature of economic activities and technological innovations

aimed at reducing water stress and improving water efficiency. Industrial and agricultural use, along with tourism — which increases with GDP — places significant pressure on water resources. Technology can either improve water efficiency — for instance, through recycling or desalination — or exacerbate it — for instance, the high water demands of increased digital development (data centers are huge water guzzlers) or agricultural diversification.

If it is assumed that the total capacity of the islands is constant at 300 million cubic meters (World Bank's World Development Indicators database) then the amount of freshwater available (figure 4) has declined from 946 cubic meters per person in 1980 to 515 cubic meters by 2020. However, if freshwater declines due to climate change — affecting the freshwater cycle — and excessive use that outpaces replenishment, such as with industrial and agricultural use, then the availability of freshwater will decline even further.

Figure 4
Renewable international freshwater resources and population growth in Cabo Verde, 1980–2020

Renewable internal freshwater resources per capita (cubic meters)



Source: UNCTAD, based on data from the World Bank's *World Development Indicators* database.

Table 1 below illustrates the extent of water stress, measured by the share of freshwater resources withdrawn annually for agriculture. In Cabo Verde, this figure is the highest of all the African SIDS for which data is available, at almost 35 per cent of all renewable water resources — significantly above the median for African SIDS, which stands at just 1.17 per cent. This reflects Cabo Verde's relative scarcity of rainfall compared to the other SIDS, and to some extent, the lower efficiency of its agriculture water use.

Table 1
Agricultural water withdrawal in Cabo Verde and other African SIDS, 2019–2021

	Percentage of total renewable water resources (average 2019–2021)
Cabo Verde	34.67
Comoros	0.39
Guinea-Bissau	0.46
Mauritius	10.99
Sao Tome and Principe	1.17
Average	**9.54**

Source: UNCTAD, compilation based on data from the Food and Agriculture Organization's *AQUASTAT*.

2.2.3 Ecological Overshoot

With SDG targets 8.4 (Improve progressively through 2030 global resource efficiency) and 12.2 (Sustainable use of natural resources) countries are committed — including Cabo Verde — to reducing the negative impact that population pressure and economic activities exert on natural resources. Related key notions and measures of this impact are the ecological footprint, domestic material consumption (DMC) and material footprint indicators.

The term ecological footprint was introduced by Wackernagel and Rees (1996). Hoekstra and Wiedmann (2014: 1114) describe an ecological footprint as an indicator:

"of human pressure on the environment and form the basis for understanding environmental changes that result from this pressure (such as land-use changes, land degradation, reduced river flows, water pollution, climate change) and resultant impacts (such as biodiversity loss or effects on human health or economy)."

They distinguished seven types of ecological footprints: land, energy, water, materials, carbon, nitrogen and biodiversity footprints — and stated that the carrying capacity of the Earth system in terms of carbon, energy, land, material and water has been exceeded. Ecological footprints are calculated in terms of global hectares (gha) which is a measure of biocapacity. Human ecological footprints in Europe are approximately 4–5 gha per person, the United States about 8 gha, compared to 0.5 gha in some developing countries (Rees, 2022). In Cabo Verde, it is about 1.3 gha per person.

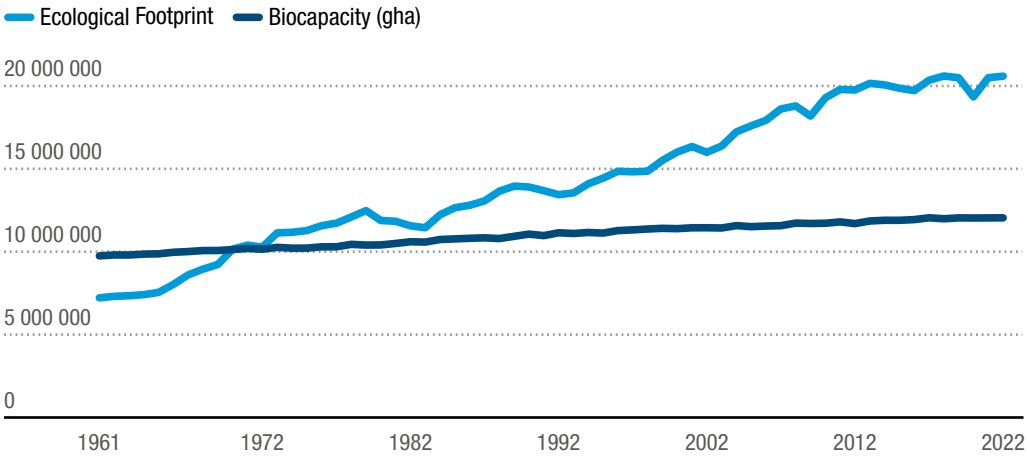
Measuring the carrying capacity of Earth systems and determining whether a particular environmental footprint exceeds it, depends on the biocapacity of the Earth, and on lower scales, of a region or country. Biological capacity available per person is calculated by the Global Footprint Network (GFN)7 as the hectares of biologically productive land and water divided by the number of inhabitants. Biologically productive land and water are, according to the GFN, the "land and water (both marine and inland waters) area that supports significant photosynthetic activity and the accumulation of biomass used by humans. Non-productive areas as well as marginal areas with patchy vegetation are not included. Biomass that is not of use to humans is also not included." The GFN notes that in 2014, the total biologically productive area on land and water globally was approximately 12 billion hectares, resulting in a biological capacity of 1.6 gha per person.

The difference between the ecological footprint and the biocapacity gives an indication of ecological overshoot (or ecological deficit). In per capita terms, this is also expressed as the biocapacity reserve or biocapacity deficit in gha per person. Globally, the world has been in ecological overshoot since the 1970s. As described by Lin et al. (2018: 9), *"Earth's ecological overshoot began in the 1970s [and] continues to grow at an average rate of 2.0 percent (SD=2.3) per year. In 2014, humanity's Ecological Footprint was 69.6 percent greater than Earth's biocapacity*." Cabo Verde's ecological footprint exceeded the islands' fragile archipelago's biocapacity since the late 1960s, as shown in figure 5.

Cabo Verde's ecological footprint exceeds its biocapacity, resulting in a biocapacity deficit.

7 See https://data.footprintnetwork.org/#/abouttheData.

Figure 5
Cabo Verde: Ecological overshoot, 1961–2022
Thousand global hectares



Source: UNCTAD, compilation based on data from the Global Footprint Network.

Figure 5 shows that Cabo Verde has significantly overshot its biocapacity, resulting in a large ecological deficit.

Table 2 below presents the biocapacity reserve or biocapacity deficit in global hectares (gha) per person across various African SIDS, based on the extent of ecological overshoot per capita and comparisons with other African SIDS.

Table 2
Biocapacity reserve/deficit in Cabo Verde and African SIDS, 2019
(Global hectares per person)

	Ecological footprint (gha/per person)	Biocapacity (gha/per person)	Biocapacity reserve/ deficit
Cabo Verde	1.28	0.40	-0.90
Comoros	1.40	0.40	-1.00
Equatorial Guinea	1.63	2.90	1.30
Guinea-Bissau	1.28	2.40	1.10
Madagascar	0.87	2.10	1.20
Mauritius	3.19	0.70	-2.50
Sao Tome and Principe	0.94	0.75	-0.20
Seychelles	12.31	12.10	-0.10

Source: UNCTAD, compilation based on data from Global Footprint Network.

Table 2 shows that Cabo Verde has an ecological footprint per person of almost 1.30 gha/p, which exceeds its biocapacity of 0.40 gha/p, resulting in a biocapacity deficit of -0.90 gha/p in 2019. If everyone on Earth had the same ecological footprint as Cabo Verdeans, it would require 0.83 Earths. It also shows that amongst the African SIDS included in table 2, the largest biocapacity deficit is in Mauritius (-2.50), followed by Comoros (-1.00). Notably, the highest ecological footprint per person is the Seychelles, with 12.31 global hectares per person. However, the Seychelles has a small biocapacity deficit of -0.10, due to the fact that it has the highest biocapacity of all

African SIDS, at 12.10 gha/p — 30 times as much as Cabo Verde. By comparison, Cabo Verde and Comoros have the lowest biocapacity of the African SIDS.

2.2.4 Over-fishing and pollution

The oceans, covering 71 per cent of Earth's surface Earth and containing 97 per cent of its water, support all life on the planet, including human life. In fact, 80 per cent of all life on Earth is in the oceans, which collectively8 accounts for 99 per cent of the planet's living space. The oceans — and the life they support — provides the most effective carbon sinks, playing a crucial role in mitigating global warming. An International Monetary Fund (IMF) study by Chami et al. (2019), for instance, found that a single blue whale sequesters around 33 tonnes of CO2 on average, more than 10 times the amount captured by a tree over the same period. The IMF has estimated the carbon sequestration value of whales at over US $1 trillion (Chami et al., 2019).

The oceans surrounding Cabo Verde are particularly significant. The topography created by the Atlantic Ocean — a coastal upwelling — has resulted in, "a large marine ecosystem that is among the most productive, diverse, and economically important ones worldwide. Seamounts around Cabo Verde are hotspots of marine biodiversity" (Ocean Science Centre Mindelo (https://www.oscm.cv/scientific-setting.html)). The waters are rich in fish, with a variety of species such as barracuda, tuna, and a wide range of reef fish. The archipelago is also a popular feeding and breeding ground for numerous cetaceans, including humpback whales, pilot whales, several dolphins species, and sperm whales. Additionally, several species of sea turtles — notably the loggerhead turtle — nest on the islands' beaches. Some of this marine fauna are unique, such as around 60 unique species of cone snails (gastropod molluscs), some found exclusively on particular islands or in certain bays.[9]

Given the ecological and economic importance of the oceans, the concept of a *Blue Economy* emerged following the 2012 United Nations Conference on Sustainable Development (Rio+20) (Ortega et al., 2024). This concept was further formalized by the 2015 Sustainable Development Goals (SDGs), specifically SDG 14, which commits signatories to "conserve and sustainably use the oceans, seas and marine resources for sustainable development."

If everyone on Earth had the same ecological footprint as Cabo Verdeans, it would require 0.83 Earths.

The *World Bank's Blue Economy initiative*[10], including the Blue Economy Development Framework (BEDF)[11], defines the blue economy as an encompassing all economic activities related to fisheries, maritime transport, tourism, renewable energy, waste management and climate change. According to the *European Union Blue Economy Observatory*[12], the key industries most associated with the blue economy are blue biotechnology, coastal tourism, desalination, marine infrastructure and robotics, marine living resources, marine non-living resources, marine renewable energy, marine defence, maritime transport, ocean energy, port activities, blue research and innovation, and shipbuilding and repair (Ortega et al., 2024). The Observatory measures the value added and employment provided by the seven blue economy sectors across European Union countries:

1. Marine living resources
2. Marine non-living resources
3. Marine renewable energy
4. Port activities
5. Shipbuilding and repair
6. Maritime transport

8 See https://www.marinebio.org/creatures/facts/.

9 https://www.oscm.cv/scientific-setting.html

10 See https://www.worldbank.org/en/topic/oceans-fisheries-and-coastal-economies#1.

11 See https://thedocs.worldbank.org/en/doc/e5c1bdb0384e732de3cef6fd2eac41e5-0320072021/original/BH023-BlueEconomy-FINAL-ENGLISH.pdf.

12 See https://blue-economy-observatory.ec.europa.eu/index_en.

7. Coastal tourism

The blue economy provides food (e.g. through fishery and aquaculture[13]), energy (offshore oil and wind energy), opportunities for tourism and recreation. Moreover, it also facilitates global commerce, with 90 per cent of international trade is seaborne, enabling extensive shipping, logistics and port industries. In 2022, around 4.9 million fishing vessels operated the world's ocean's daily, of which 3 million were motorised, and 20% were from African countries (FAO, 2024).

By 2022, global fisheries and aquaculture14 production totalled 223.2 million tonnes, valued at US $472 billion —- the highest levels ever recorded — and provided employment for 62 million people in primary production alone (FAO, 2024: vii). Marine capture fisheries accounted for 79.7 million tonnes, while inland fisheries contributed 11 million tonnes. Of the total catch, 89 per cent were destined for food consumption.

Although large-scale fisheries caught 60 per cent of the total fish in 2022, they generated only 10 per cent of employment in the sector. In contrast, small-scale fisheries (SSF) accounted for 90 per cent of employment while catching 25 million tonnes of marine fish annually. SSFs also play a significant role in international trade: FAO, Duke University and WorldFish (2023) found that around 26 per cent of marine SSF catches are exported.

In Cabo Verde, SSFs are important for job creation, sustainable livelihoods, coastal management and marine conservation. Their role will become even more important in the future, as will be discussed more extensively in section 4. Section 4 will also highlight the still underappreciated role of SSFs in exporting and in driving broader export expansion.

Despite their global and local importance, the ocean economy is under threat and remains far from sustainable. Some major aspects relevant for Cabo Verde, are of concern:

- **Over-fishing and ocean grabbing:** At least 32 per cent of the world's fisheries are overexploited, depleted or recovering[15]. Growing problems that exacerbate this include an increase in Illegal, Unregulated and Unreported (IUU) fishing[16], insufficient marine conservation, poor contractual agreements for fishing in exclusive economic zones (EEZs), the expansion of industrial fishing, bycatch impacts[17], harmful fishing subsidies and the marginalisation of small-scale actors in the fishing industry. These challenges are evident in Cabo Verde, as well. For example, Rodrigues and Villasante, 2016: 34) found, that "tourism development has resulted in a substantial increase of recreational catches, which are hardly monitored and reported. A great proportion of commercial and subsistence catches in Cabo Verde are also under-reported and there are local reports indicating that certain fish and invertebrate stocks are overexploited."
- **Habitat loss and loss of biodiversity:** This is as a result of overfishing (which destroys habitats, including coral reefs), harmful fishing practices (e.g. bottom trawling), pollution (e.g. plastics and fishing gear), and global warming. Seabird populations have declined by 70 per cent since the 1950s (Paleczny et al., 2015), and almost all sea turtle populations are threatened[18]. Cabo Verde is not immune

[13] Fishery and aquaculture products include aquatic animals (fish, crustaceans, molluscs and other aquatic animals); algae (macroalgae, microalgae and Cyanobacteria); and other aquatic products (e.g. corals and sponges).

[14] 56 per cent of this is global aquaculture production, which was 130.9 million tonnes in 2022.

[15] See https://www.marinebio.org/conservation/sustainable-fisheries/.

[16] See https://www.fao.org/4/Y3554E/y3554e01.htm.

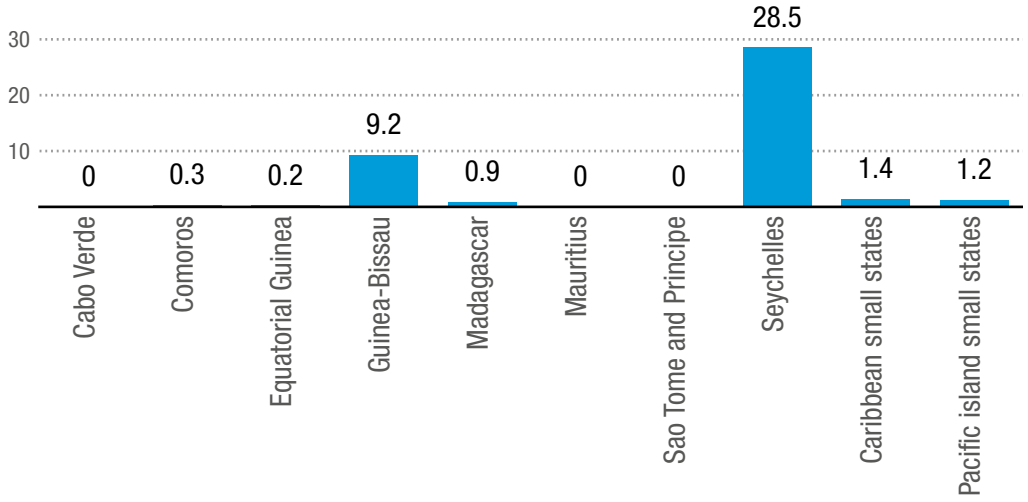
[17] For instance, around 10,000 dolphins may be killed each year in France alone as a bycatch of its fisheries. See https://www.theguardian.com/environment/2019/mar/31/mutilated-dolphins-wash-up-on-french-coast-in-record-numbers.

[18] See https://www.seeturtles.org/sea-turtles-threats.

to these threats: for instance, tonnes of marine debris ends up on Santa Luzia Island, where about 5,500 sea turtles lay their eggs every year. This debris poses extreme hazards to the sea turtles.

Despite Cabo Verde's ecological diversity and unique marine fauna, less than 1 per cent of its territorial waters are marine protected areas, as shown in Figure 6.

Figure 6
Marine protected areas, Cabo Verde and selected SIDS
(Percentage of territorial waters)



Source: UNCTAD, based on data from the World Bank's *Development Indicators*.

- **Plastics pollution:** More than 200 million metric tonnes of plastic now pollute the oceans, leading to habitat loss, species extinction, and serious human health risks[19]. The so-called Great Pacific Garbage Patch is an area in the Pacific Ocean larger than 1.6 million km^2 and containing hundreds of thousands of tonnes of plastics (Lebreton et al., 2018). As the World Economic Forum (2016:7) notes, "each year, at least 8 million tonnes of plastics leak into the ocean – which is equivalent to dumping the contents of one garbage truck into the ocean every minute."
- **Nitrogen and per- and polyfluoroalkyl substances (PFAS) pollution.** Nitrogen pollution, primarily from agricultural runoff, wastewater discharges, and atmospheric deposition can lead to eutrophication — an over-enrichment of nutrient in the water — that can cause harmful algal blooms, oxygen depletion and loss of biodiversity (Vitousek et al. 1997). Per- and polyfluoroalkyl substances (PFAS), a group of synthetic chemicals, that due to their persistence in the environment and bioaccumulation potential, have become another global environmental concern. PFAs have been detected in marine environments worldwide, with potential adverse effects on marine organisms (Giesy and Kannan, 2001).
- **Seafloor mining for "green" minerals.** The International Union for Conservation of Nature (IUCN) warns[20], "the most direct impact from deep-sea mining would be the loss of species and the fragmentation or loss of ecosystem structure and function. The noise of the machinery would affect wildlife, the scraping off of the seabed would kill animals and plants, and the sediment plumes smother and impact marine life

[19] See https://oceanconservancy.org/trash-free-seas/plastics-in-the-ocean/.

[20] See https://www.iucn.nl/en/news/the-impact-of-deep-sea-mining-on-biodiversity-climate-and-human-cultures/.

of all zones of the ocean. The damage caused to the deep-sea ecosystems would most likely be permanent."

Concerns about the sustainability of ocean resources are noted, and several global initiatives exist to achieve trade-offs between food and employment from marine and other aquatic sources and their sustainability.

In light of these threats, Cabo Verde has committed to a range of international legally binding instruments relevant to ecological fisheries, which need to be explicitly considered when evaluating new export opportunities and tailoring SME support measures:

- 1971 Ramsar Convention on Wetlands of International Importance (Ramsar Convention)
- 1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora Party
- 1979 Convention on the Conservation of Migratory Species of Wild Animals
- 1982 United Nations Convention on the Law of the Sea
- 1992 Convention on Biological Diversity
- 1993 Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas (Compliance Agreement)
- 1995 United Nations Agreement for the Implementation of the Provisions of the LOSC relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UNFSA)
- 2009 Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (PSMA)

Also relevant is the national legislation dealing with fisheries — the Decreto Legislativo no. 2–2020 defines the general framework for the management and planning of fishing activities in maritime waters and on the high seas.

2.3 Conclusions

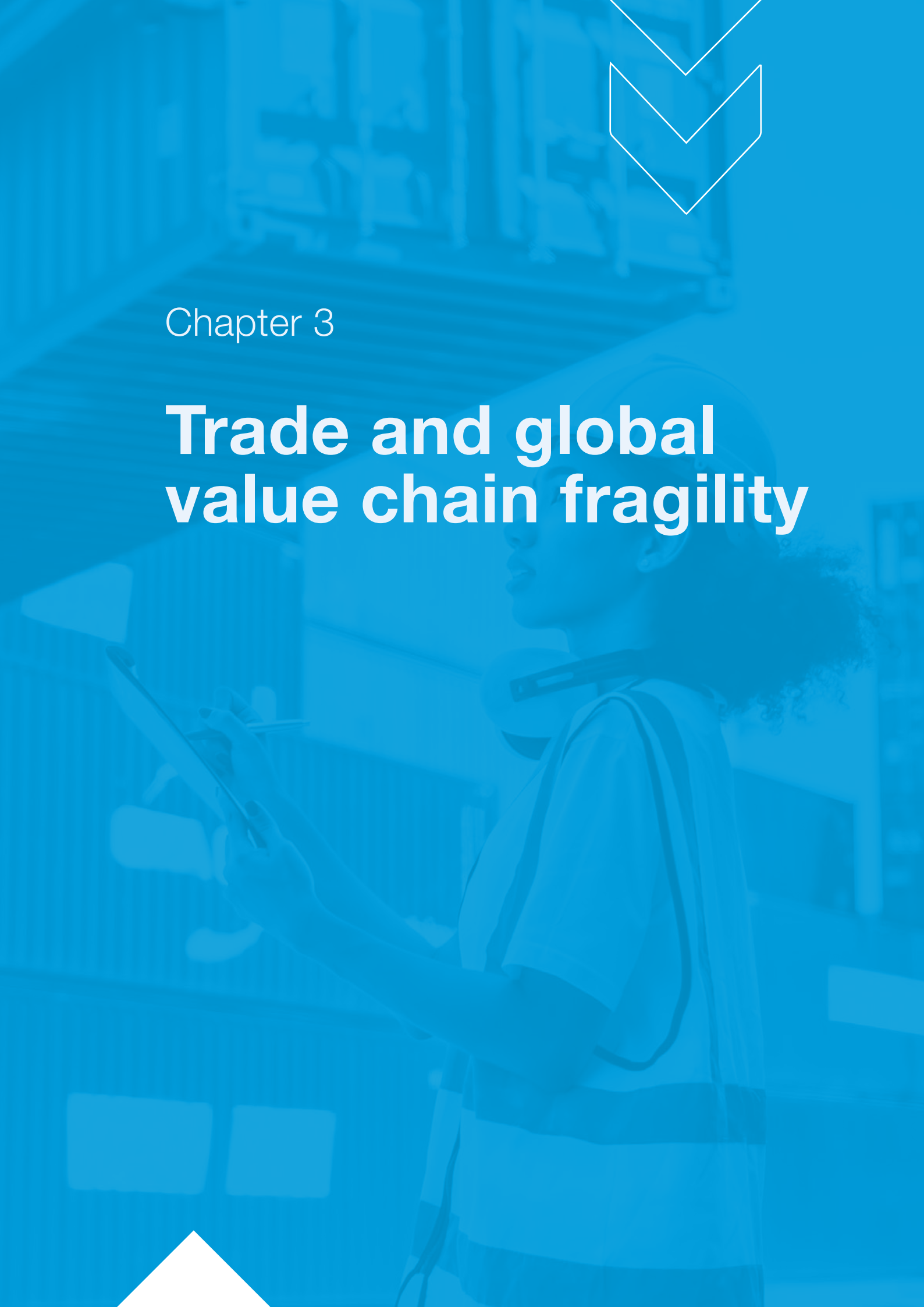
Today, the vulnerability of small islands such as Cabo Verde to ecological overshoot and global economic and geopolitical trends is more acute than ever. Perhaps even more so as the climate crisis intensifies, and population and economic growth place increasing pressure on the planet's material resources and natural boundaries.

Islands are an integral part of a sensitive and intricate marine ecosystem on which they critically depend. More than ever, the planet's oceans are under threat from global warming, pollution, over-fishing, deep-sea mining and oil drilling. The rise of sea levels, ocean acidification, the disruption of the Atlantic Meridional Overturning Circulation (AMOC), and the intensification of natural disasters pose threats that few small islands can escape. At the same time, global trade, tourism and migration — the remittances generated — are being reshaped by geopolitical fragmentation and conflict, potentially leading to dramatic consequences for small islands like Cabo Verde. The core challenge that Cabo Verde and other small islands face is no longer sustainability, but habitability. Blake and Gilman (2024) clarifies this important distinction:

"While the concept of sustainability treats nature both as distinct from humans and as existing for humans' responsibly managed instrumental use, the concept of habitability understands humans as embedded in and reliant on the more-than-human natural world. Stripped of sustainability's anthropocentrism, habitability focuses on fostering the conditions that allow complex life in general – including, but not only, humans – to live well [...] These goals – thriving ecosystems in a stable biosphere supporting human lives and nonhuman life – must be our new lodestar."

In the coming years, as set out in the Cabo Verde Ambition 2030 plan and the Government's Strategic Plan for Sustainable Development for 2022–2026, greater urgency will be placed on making tourism more sustainable, developing and expanding renewable energy, securing the ocean (blue) and digital economies, and investing in sustainable transportation.

Additionally, this paper calls for the development of a socio-eco entrepreneurial ecosystem that will support SMEs to export more to regional markets while respecting ecological boundaries. As the island's ecosystem is marine based, the main focus of SME support is the ocean economy (blue economy) system, which will support SMEs to engage in a sustainable manner in regional production and supply chains.



Chapter 3

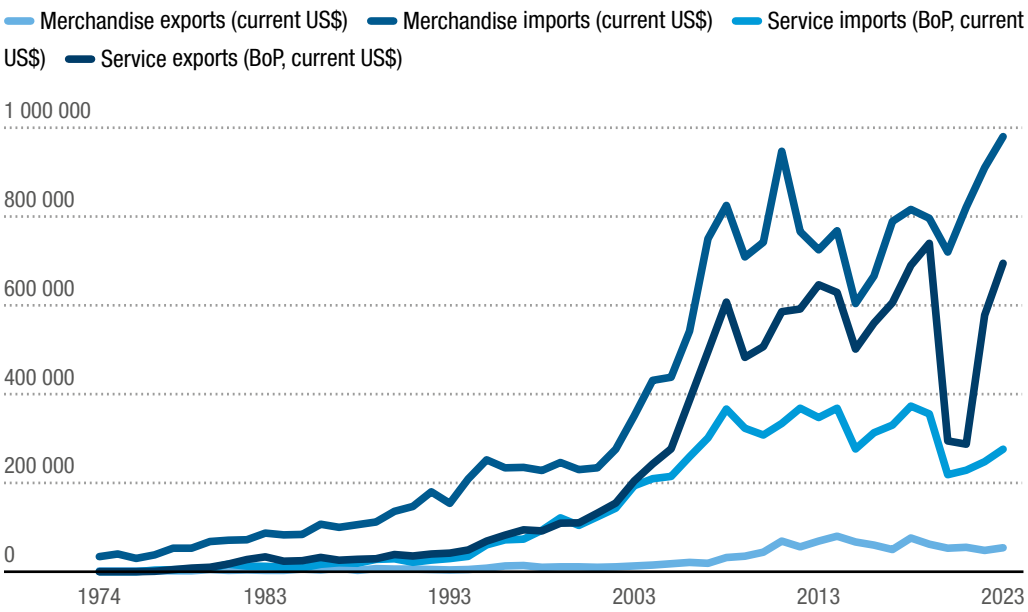
Trade and global value chain fragility

The main aim of this report is to outline an export strategy for Cabo Verde's SME sector, aiming at the African region, with appropriate incentives and supports to consider both social shortfalls and ecological boundaries. In the previous section, section 2, the ecological boundaries facing Cabo Verde was discussed. This section provides an overview of Cabo Verde's trade and global value chain integration (see Appendix A for a methodological note).

3.1 Aggregate trade

As shown in figure 7, in 2022 and 2023, Cabo Verde exported total products (merchandise) worth US $48 and $54 million, respectively, and imported total goods worth US $910 and $980 million, respectively[21]. Its services exports in 2023 were worth almost US $695 — largely from tourism — and services imports, almost US $276 million. This is based on direct reporting and not mirror data.

Figure 7
Merchandise and service exports, and imports of Cabo Verde, 1974–2023
(Current US dollars)



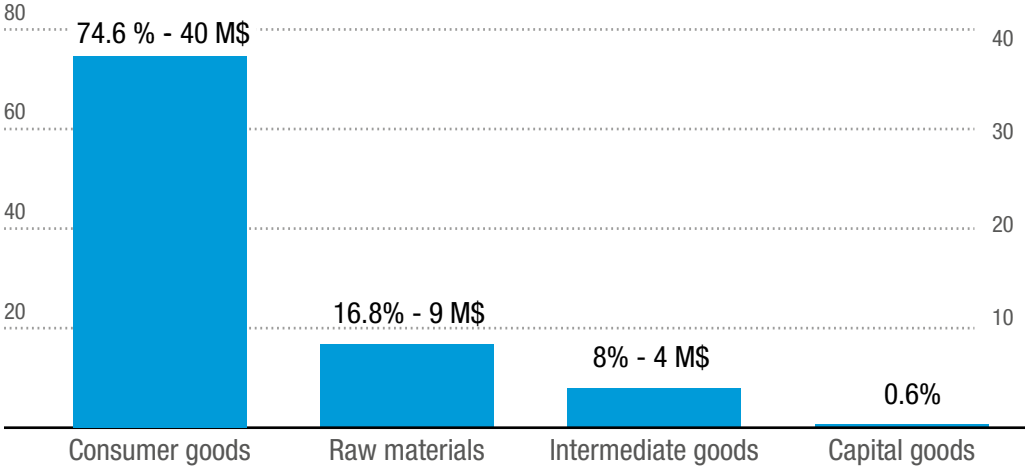
Source: UNCTAD, compilation based on the World Bank's *World Development Indicators*.

Regarding the composition of Cabo Verde's merchandise exports, in terms of broad product types, most are consumer goods. Figure 8 makes a distinction between consumer goods (final consumption goods), intermediate goods and capital goods exported.

[21] If expressed in constant prices, the values would be different, although the relative magnitudes would be unchanged.

Figure 8
Consumer, intermediate and capital goods exports from Cabo Verde, 2020

(Current million US dollars (right) Percentage of exports (left))

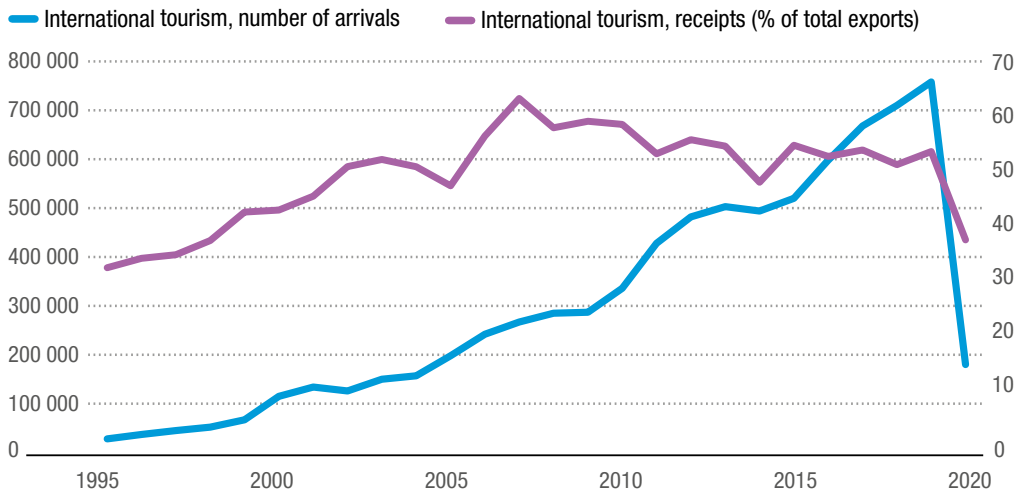


Source: UNCTAD, compilation based on World Integrated Trade Solution (WITS) data.

As indicated in figure 9 below, just before the COVID-19 pandemic in 2020, 758,000 tourists generated 56 per cent of Cabo Verde's total export receipts in 2019. Since 2005, the share of tourism in exports has consistently exceeded 50 per cent. The vulnerability implied is evident in 2020, by the dramatic drop in tourists and tourism revenue, due to the COVID-19 pandemic.

Figure 9
Tourism to Cabo Verde: Numbers and share of exports, 1995–2020

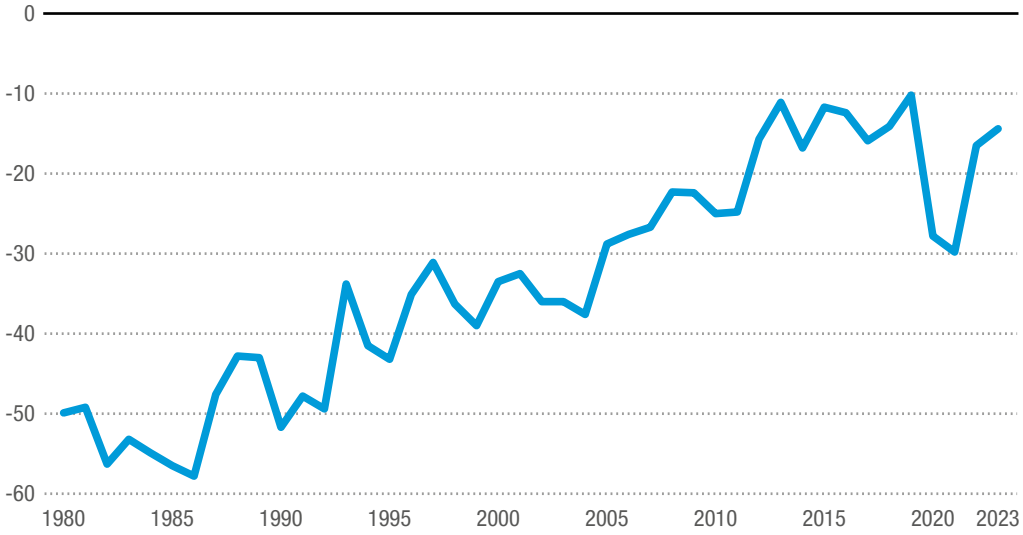
(Number of arrivals and Percentage of exports)



Source: UNCTAD, compilation based on the World Bank's *World Development Indicators.*

Thus, Cabo Verde has a substantial deficit on its trade balance — in 2023, it was US $500 million in current prices (14 per cent of its GDP). Trade deficits, like the dependence on tourism to generate service export receipts, is a structural feature of this import-and-tourism dependent country, as figure 10 shows.

Figure 10
External balance on goods and services, Cabo Verde, 1980–2023
(Percentage of gross domestic product)



Source: UNCTAD, compilation based on the World Bank's *World Development Indicators.*

Given its dependence — and vulnerability — on tourism to generate export revenue, can Cabo Verde diversify its exports? To answer that, it is necessary to first understand the current export capacity, exported products and their destinations and trends.

Before considering the detailed exports at a product level, the following perspectives on Cabo Verde's exports on an aggregate level are instructive:

- Total exports and imports by region
- Total exports and imports by skills and technology intensity of the products
- Total exports and imports by stage in production
- Total exports and imports by UNCTAD's ocean economy classifications

The table in Appendix C shows the total exports and imports of Cabo Verde from 2017 to 2022, by different world regions. On average, over that period, 86 per cent of Cabo Verde's exports of goods were destined to Europe, with only 4.3 per cent going to the rest of Africa. About 4.4 per cent and 4.2 per cent of its exports were destined for Asia and North America, respectively. Approximately 74 per cent of all Cabo Verde's imports for that period were from Europe, followed by 13 per cent from Asia, and 7 per cent from the rest of Africa.

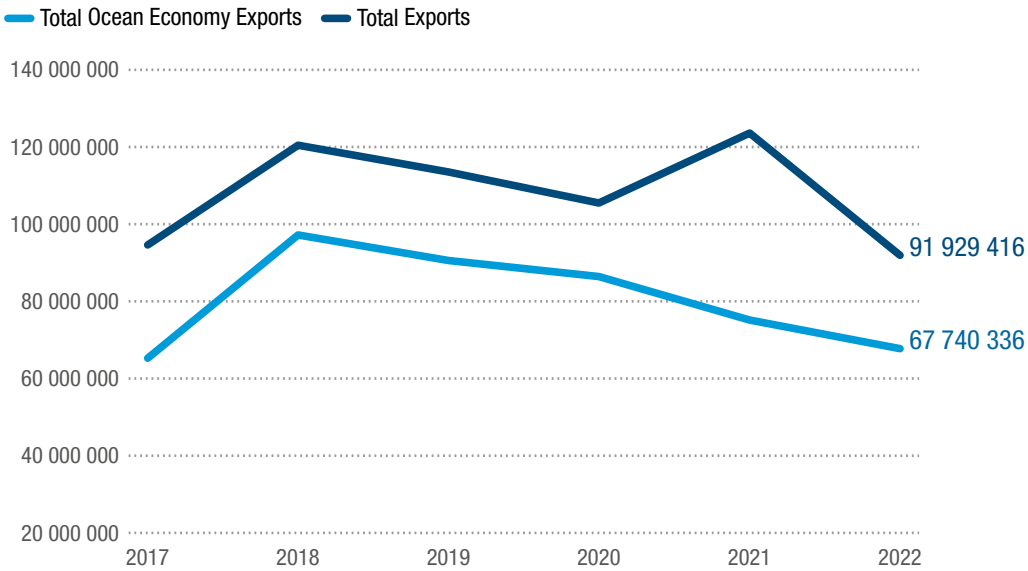
The table in Appendix D shows the total exports and imports of Cabo Verde from 2017 to 2022 by the skills and technology intensity of the products traded. The bulk of exports were non-fuel primary commodities (largely fish; 76 per cent), followed by resource-intensive manufactures (13 per cent). High skill- and technology intensive manufactures made up 6 per cent of total exports. Concerning imports per skill and technology intensity for that period, 29 per cent were of non-fuel primary commodities, 21 per cent medium skill- and technology intensive manufactures, and 16 per cent of mineral fuels (e.g. marine diesel, aircraft fuel). Therefore, the bulk of Cabo Verde's trade is in primary commodities.

The table in Appendix E shows the total exports and imports, by stage, in production from Cabo Verde between 2017 and 2022. It shows that 67 per cent of Cabo Verde's exports are — on average — consumer goods, followed by 13 per cent for intermediate goods and 11 per cent raw materials. As far as imports are concerned, 41 per cent are intermediate goods, and 33 per cent consumer goods.

86 per cent of Cabo Verde's exports of goods were destined to Europe, with only 4.3 per cent going to the rest of Africa.

The table in Appendix F contains data on the total exports and imports of Cabo Verde according to UNCTAD's ocean economy classifications. These classifications are described in the UNCTAD (2021) report[22], "towards a harmonized international trade classification for the development of sustainable ocean-based economies." Ocean goods trade is a large share of Cabo Verde's total exports, the share is in the range of 70 - 80 per cent (figure 11 for ocean economy and total exports).

Figure 11
Ocean economy exports and total exports, Cabo Verde, 2017–2022
(US dollars)



Source: UNCTAD, compilation based on CEPII/ BACI data and UNCTADStat ocean trade data.

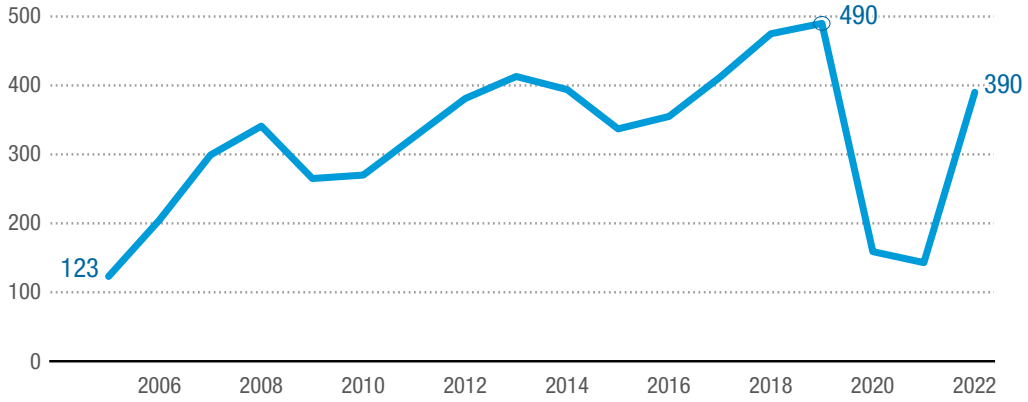
The data in Appendix F show that 78 per cent of Cabo Verde's ocean goods exports are seafood processing, followed by marine fisheries (14 per cent). Thus, 92 per cent of ocean goods exports are directly due to fishing. Exports of ships and port equipment constitutes only 4 per cent of the country's ocean goods exports. Just as Cabo Verde's ocean economy goods exports are dominated by fish, its second largest category of ocean goods imports is also fish (31 per cent), which is nearly the same size as the top ocean good import — high-technology goods used in fishing and shipping (32 per cent).

Following these, the most important import of ocean goods is ships and port equipment which make up 22 per cent of imports. The value of the imports of these latter goods — technology, and ships and port equipment — totalled US $53 million in 2022 — which is a potentially large market for local manufacturing for import replacement.

A potential area for future export growth may be in the ocean service exports. Figure 12 shows that exports of ocean services from Cabo Verde have grown significantly since 2005 — from US $123 million to $390 million in 2022. The figure also shows the significant decline in these service exports from 2020 to 2021 as a result of the COVID-19 pandemic.

[22] See https://unctad.org/publication/towards-harmonized-international-trade-classification-development-sustainable-ocean.

Figure 12
Ocean service exports from Cabo Verde, 2005–2022
(Current million US dollars)

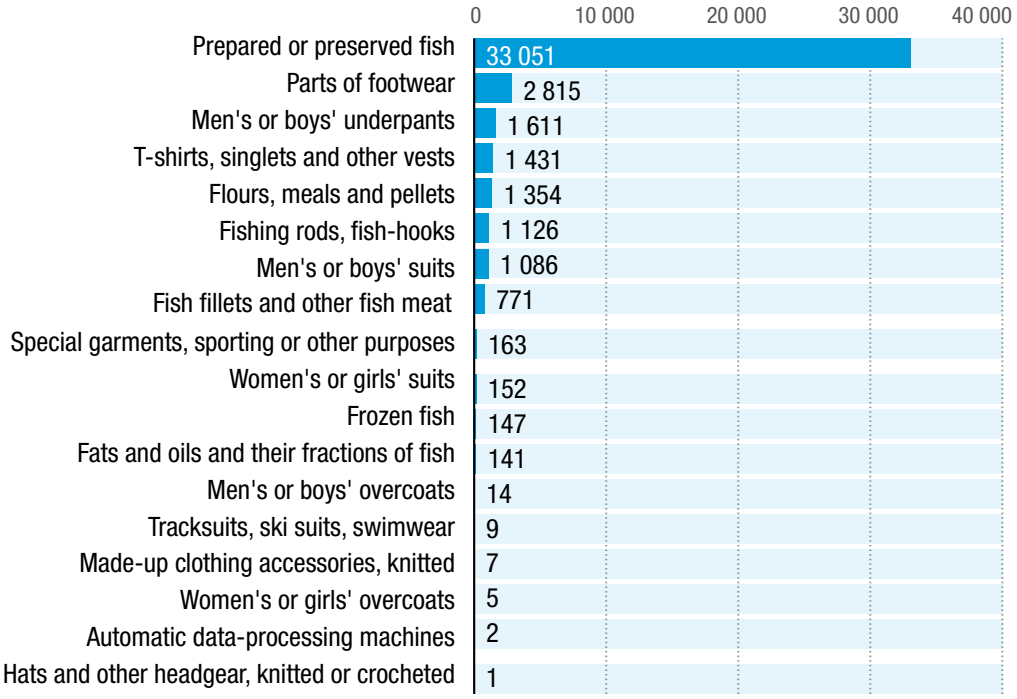


Source: UNCTAD, compilation based on UNCTADStat Ocean trade data.

3.2 Detailed merchandise exports

According to the International Trade Centre's Trade Map[23], the total exports from Cabo Verde in 2022 and 2023 were US $42 million and $43.8 million, respectively. These exports, on a 4-digit HS Code Level, are shown below in figure 13.

Figure 13
Exports per HS Code from Cabo Verde, 2023
(Thousands of US dollars)



Source: UNCTAD, compilation based on data from International Trade Centre's Trade Map.

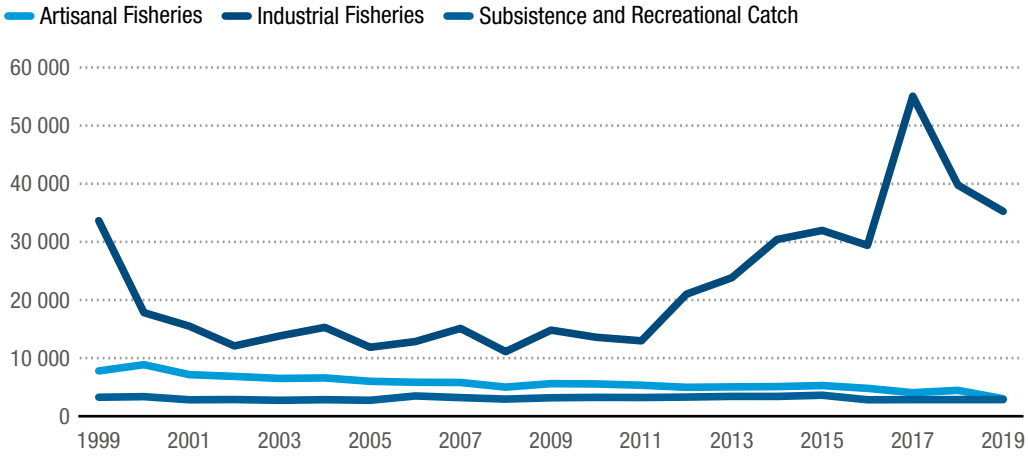
[23] See https://www.trademap.org/.

Figure 13 also shows that in 2023, the bulk of exports from Cabo Verde was classified as Prepared or preserved fish (HS 1604) — a value of US $33 million or 75 per cent of the country's total exports. According to the International Trade Centre's Trade Map, Cabo Verde's exports of prepared or preserved fish represent 0.2 per cent of world exports for this product, ranking it 55th in world exports. It is evident that outside of fisheries, Cabo Verde's major exports are textiles, spefically footwear, underpants, T-shirts, men's suits, garmets for sports, tracksuits, overcoats, and hats and other headgear.

3.3 Aquatic production and trade

Cabo Verde's fisheries play a relatively small role in global maritime value chains. While the country's fisheries sector is not a major exporter compared to larger fishing nations, it contributes to local food security, employment and export earnings. The fisheries industry in Cabo Verde consists of many traditional, small-scale fishing activities that tend to dominate in terms of vessels and employment. Moreover, according to the World Bank24, 59 per cent of the processing work in the fisheries sector in Africa is done by women. Traditionally, as in most other fisheries industries in Africa, this reflects not only a lack of investment in the sector, but also importantly, ecological constraints (Carineiro, 2011). The majority of Cabo Verde's fisheries target species such as tuna mackerel, and cuttlefish. These fisheries often rely on local markets and tourism to sell their catch (Rodrigues and Villasante, 2016). The total fish "produced" — that is, caught — in Cabo Verde's exclusive economic zone by artisanal and industrial fisheries between 1999 and 201925 are shown in figure 14. It shows that most fish in Cabo Verde's exclusive economic zone is caught by industrial fisheries — the percentage of the total catch caught by industrial fisheries has increased from 67 per cent in 2000 to 92 per cent by 2019.

Figure 14
Total marine fisheries catch in Cabo Verde's exclusive economic zone, between 1999 and 2019
(Tonnes)



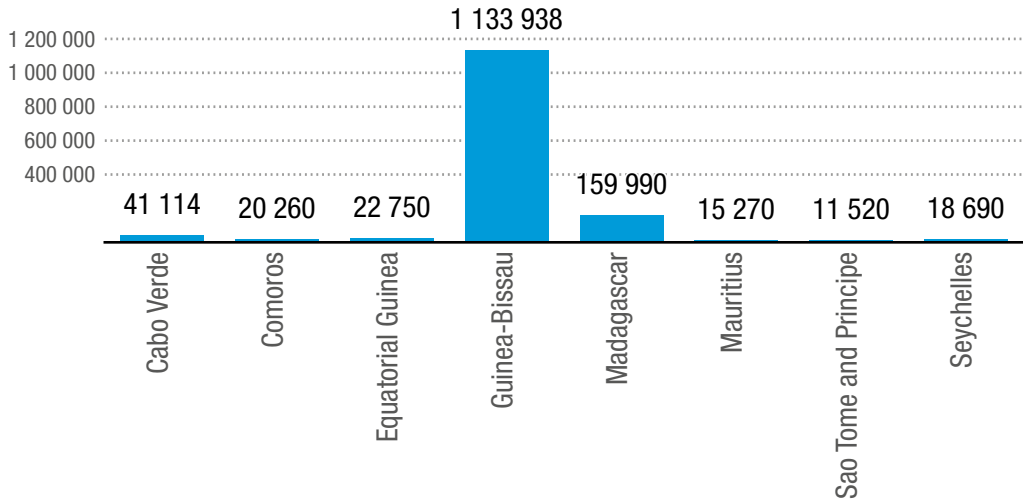
Source: UNCTAD, based on data from the Food and Agriculture Organization of the United Nations FishStat database.

[24] https://www.worldbank.org/en/programs/africa-program-for-fisheries?utm_source=chatgpt.com

[25] There are also catches by subsistence fisheries and for recreational purposes — these are discussed in section 4.

It is helpful to compare the total fish catch of Cabo Verde with that of the other African SIDS (see Figure 15).

Figure 15
Total marine fisheries' catches in African small island developing States' exclusive economic zones, 2019
(Tonnes)

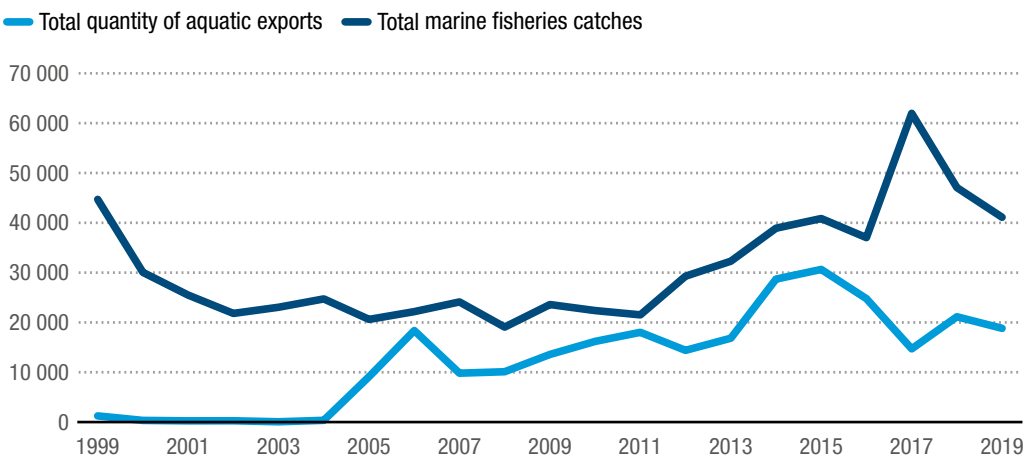


Source: UNCTAD, based on data from SeaAroundUs, extracted from the FAO's FishStat database.

Some of Cabo Verde's fisheries products, particularly tuna and mackerel, are exported to international markets. However, the country faces competition from larger fishing nations and challenges in meeting international quality standards.

The share (in tonnes) of total exported marine fisheries catches in Cabo Verde's exclusive economic zones has fluctuated considerable over the past two decades, from only 1 per cent in 2001 to 84 per cent in 2011. The total aquatic exports and total fishery catch (in tonnes) between 1999 and 2019 are depicted in figure 16.

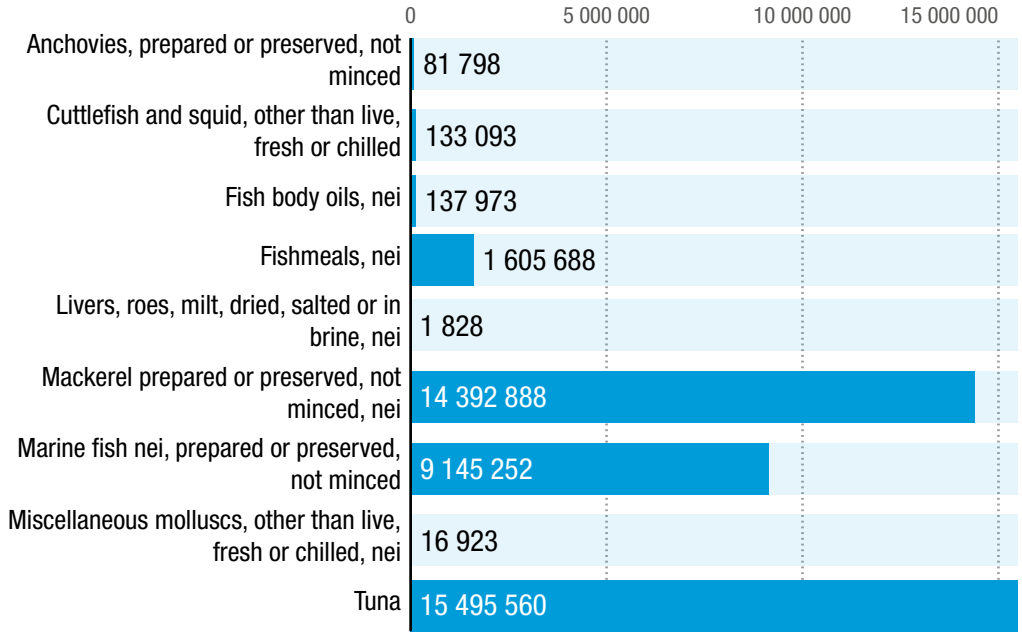
Figure 16
Total marine fisheries' catch and aquatic exports from Cabo Verde, 1999–2019
(Tonnes)



Source: UNCTAD, based on data from SeaAroundUs, extracted from the FAO's FishStat database.

Between 2019 and 2022 Cabo Verde exported26, on average US $ 41 million in aquatic products. Over the same period, it imported, on average, US $5.4 million in aquatic products. Per commodity (type of fish and fish product), figure 17 shows that pelagic fisheries27 are the most crucial, exporting tuna (US $15 million on average per year), mackerel (US $14 million per year on average per year) and various other marine fish, n.e.i — mainly shark, swordfish and shortfin mako (US $9 million on average per year).

Figure 17
Fish exports from Cabo Verde per commodity name, 2019–2022
(Annual average, in US dollars)



Source: UNCTAD, compilation based on data from the FAO Fishery and Aquaculture Statistical Time Series.

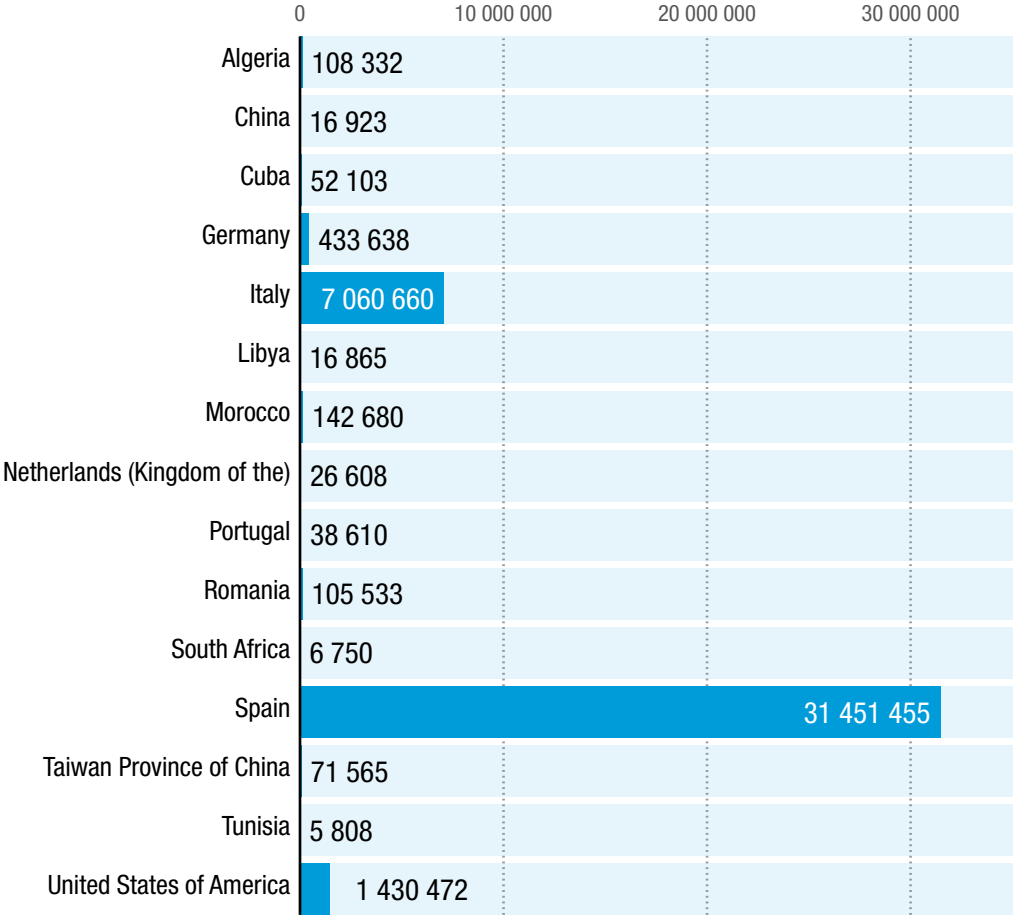
Globally, there are seven commercially important tuna species, namely skipjack, albacore, bigeye, yellowfin, Atlantic bluefin, Pacific bluefin and southern bluefin tuna. As far as the composition of Cabo Verde's tuna catch is concerned, between 2019 and 2022, it was 99 per cent skipjack tuna (*Katsuwonus pelamis),* with 0.4 per cent bigeye tuna (*Thunnus obesus)* and 0.6 per cent yellowfin tuna (*Thunnus albacares)*.

Tuna reaches the consumer mainly as canned tuna (a global commodity), fresh and frozen sashimi (sliced raw tuna — most goes to Japan), and fish meal and pet food. Between 2019 and 2022, 77 per cent of all aquatic exports from Cabo Verde was destined for one country only: Spain. The second was Italy and the third, the United States. Figure 18 shows the destination of fish exports.

[26] FAO's FishStat database. Available at: https://www.fao.org/fishery/en/statistics/software/fishstatj.

[27] Pelagic fisheries target fish species that live in the open ocean, away from the seabed. These fish are often found in the upper layers of the water column where sunlight penetrates. Typical pelagic fish species include tuna, mackerel, salmon, sardines and anchovies.

Figure 18
Fish exports from Cabo Verde per destination country, 2019–2022
(Annual average, US dollars)



Source: UNCTAD, compilation based on data from the FAO Fishery and Aquaculture Statistical Time Series.

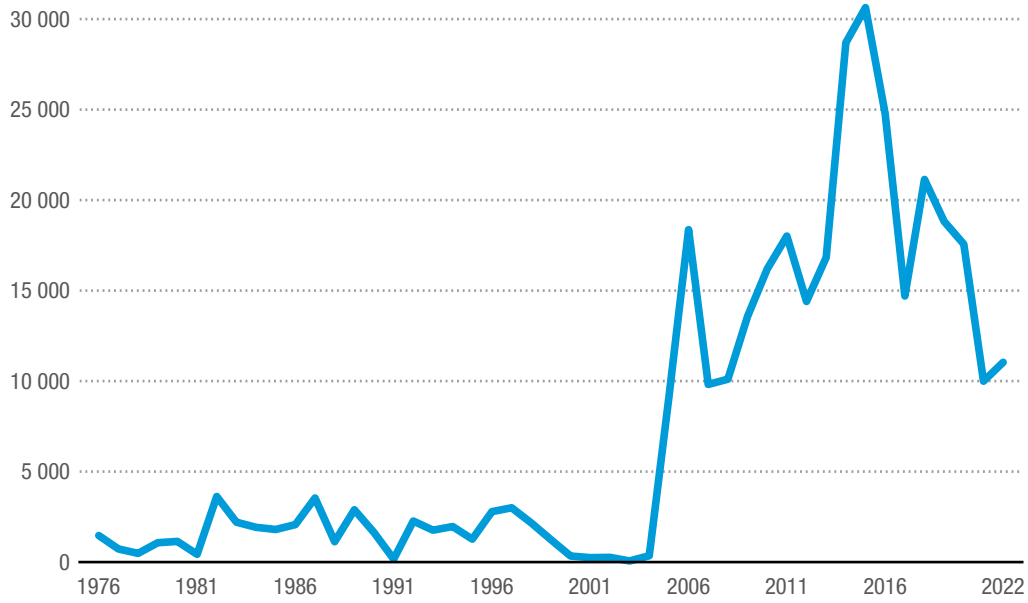
Around 44 per cent of all of Cabo Verde's fish exports to Spain is mackerel, followed by assorted marine fish — mainly shark, swordfish and shortfin mako. Tuna is the main fish exported to Italy and the United States, 96 per cent and 87 per cent, respectively. In summary, Cabo Verde's fish exports primarily consist of tuna and mackerel, with tuna mainly sent to Italy and the United States, while mackerel is exported to Spain.

Fish exports from Cabo Verde to other African countries were minimal between 2019 and 2022, - accounting for only 1 per cent of total fish export. Within Africa, fish were exported to only five countries: Algeria, Libya, Morocco, South Africa and Tunisia. Morocco was the largest recipient, followed by Algeria.

On the import side, Cabo Verde sources approximately 3 per cent of its fish imports from Africa, most notably from Senegal and Guinea Bissau, with key imports including shrimp and octopus. Cabo Verde is not self-sufficient in food production, and therefore, imports fish for local consumption, including the tourism industry (restaurants and hotels). Between 2019 and 2022, the most valuable fish import was shrimp and prawns, imported from Spain (13 per cent of total fish imports), with additional imports from coming from Senegal. This was followed by smoked salmon from Spain (6 per cent) and frozen fish fillets from China (5 per cent). Cabo Verde also imports codfish and crabs from Portugal, as well as cuttlefish and mussels from Spain.

Whether Cabo Verde can — and should — expand its fish exports under the current patterns of catching and exporting — mainly of frozen tuna and mackerel — is a fundamental question considering ecological constraints. To evaluate these, it is useful to consider not so much the value of fish exports, but the quantities, and not only the quantity of fish exported, but the quantity of fish locally consumed, as well as the international global value chain for tuna.

Figure 19
Cabo Verde: Total quantity of aquatic exports, 1976–2022
(Tonnes)



Source: UNCTAD, compilation based on data from the FAO Fishery and Aquaculture Statistical Time Series.

Figure 19 shows that in 2022, Cabo Verde exported 11,038 tonnes of aquatic products, down from the 30,000 tonnes exported in 2015. The figure shows that for most of the post-independence period, up to 2005, the quantity of fish exported remained below 5,000 tonnes. It also shows the precipitious drop in exports between 1999 and 2003 when there was an embargo of fish exports to the European market[28]. However, after 2006, a period of intensive fishing began and culminated in 2015 with the highest ever quantity of fish caught in Cabo Verde's exclusive economic zone.

It is important to note that Cabo Verde's marine resources are not harvested solely by its domestic fishing industry. According to Article 62 of the United Nations Convention on the Law of the Sea (UNCLOS), Cabo Verde may grant access its exclusive economic zone to foreign fishing fleet through fisheries access arrangements (FAAs).

Cabo Verde has had a fisheries agreement with the European Union since 199029, as well a fisheries partnership agreement (FPA) since 2007. Between 2007 and 2024, approximately 8,000 tonnes per year were caught by European Union countries in Cabo Verde's exclusive economic zone — mainly by Spanish vessels. These tend to be included in the export value and quantity

[28] This embargo was due to disagreements over the terms of the Fisheries Partnership Agreement (FPA) with the European Union. Part of the problem, which somewhat remains, is that "EC vessels continue to fail to report their movements and especially their catches to Cape Verdean [..] authorities, in clear breach of the agreements" (Carineiro, 2011: 23).

[29] See https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A21990A0809%2801%29.

recorded. However, "all valued added to the raw products that Cabo Verde sells via the EC fisheries agreements accrues to the European states — mainly Spain — where that fish is processed" (Carineiro, 2011: 24). For instance, most fish caught by European Union vessels in Cabo Verdean waters are offloaded at Mindelo Harbour on São Vicente Island, the main fishing landing facility, where there are cold stores and an ice production plant. At Mindelo Harbour, Spain owns the two main fish processing plants: Frescomar and Antunlo CV, from where fish is exported, mainly to Spain, and further value is added. These processing plants also import fish from other countries for processing. Together, these two companies employ around 800 people. Antunlo CV became operational in 2015, which coincides with a significant peak in the quantity of fish exported from Cabo Verde.[30] It also indicates that a large share of Cabo Verde's fish exports result from foreign-owned industrial fishing within its exclusive economic zone.

On 23 July 2024, Cabo Verde and the European Union signed a new protocol[31] for the implementation of the Fisheries Partnership Agreement (FPA), allowing European Union vessels to access Cabo Verdean waters for a period of five years. In terms of this FPA, 56 fishing vessels from European Union Member States will have access to Cabo Verde waters and are permitted to catch up to 7,000 tonnes of fish — mainly tuna. This is lower than the previous agreement, which was 8,000 tonnes, reflecting perhaps the downward trends and allocations. The allowed vessels are 24 tuna seiners, 10 pole-and-line tuna vessels, and 22 surface longliners. The European Union will pay Cabo Verde €750,000 for this access.

The amount of aquatic harvest that is allowed in the Cabo Verde exclusive economic zone is set by regional fisheries management organizations (RFMOs), which are international bodies responsible for conserving and managing fish stocks in specific geographic regions. The most prominent RFMOs for tuna fisheries in the Atlantic Ocean is the International Commission for the Conservation of Atlantic Tunas[32] (ICCAT). The ICCAT sets catch limits — total allowable catches or fishing quotas — for various tuna species in the Atlantic Ocean. The total allowable catches are allocated among member countries based on factors, such as historical catch levels, fishing capacity and scientific assessments (Andriamahefazafy et al., 2024).

For Cabo Verde, there are various estimates of the total tonnes of fishery resources that can be exploited in a year. Table 3 summarises some of these estimates and shows that they tend be consistent around 32,000 to 44,000 tonnes.

A large share of Cabo Verde's fish exports result from foreign-owned industrial fishing within its exclusive economic zone.

Table 3
Estimates of total exploitable fishery resources in Cabo Verde

Source	Estimate (in tonnes per year)
Government of Cabo Verde (2004)	32,500 - 41,600
Almeida et al (2003)	36,000 - 44,000
Évora (2016)	36,000 - 44,000

Source: UNCTAD compilation.

[30] See https://www.farfish.eu/2021/02/26/description-of-eu-long-distant-fleet-value-chains/.
[31] See https://oceans-and-fisheries.ec.europa.eu/news/european-union-and-cabo-verde-renew-their-sustainable-fisheries-partnership-2024-07-23_en.
[32] See https://www.iccat.int/en/.

Given the information in table 3, if the precautionary principles are followed, around 33,000 tonnes of pelagic fish is available annually in Cabo Verde. The aim of the Cabo Verde government in the 1970s was to utilise around 40,000 tonnes annually. If the current exploitation rates for exports of around 11,000 tonnes are taken as a benchmark, it appears that for the current main species, there is not yet a danger of overfishing, suggesting some short-term potential for expansion. In particular, while some species — Pacific bluefin, southern bluefin, Atlantic bluefin, Atlantic and Pacific bigeye, and Indian Ocean yellowfin — are globally threatened by overfishing, this is not yet the case with skipjack tuna.

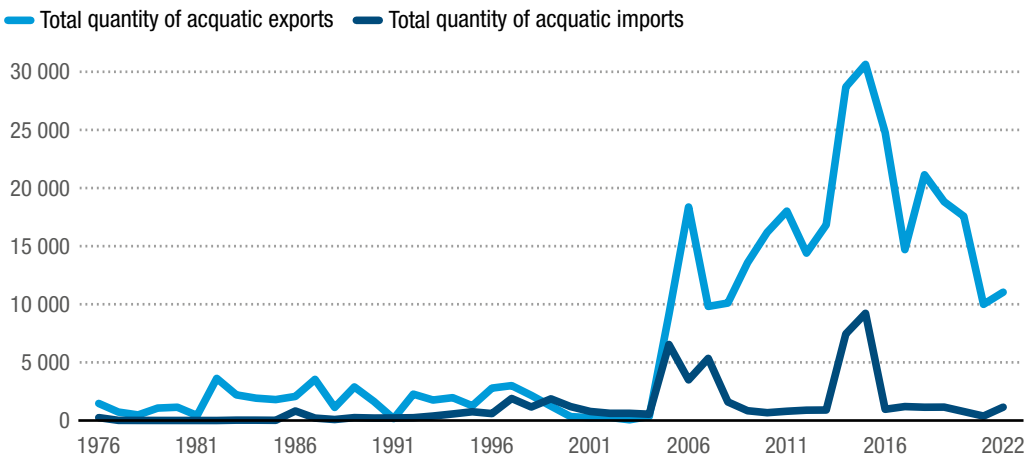
If fishing levels from 2015 are taken as a benchmark, there is indeed little scope for further expansion. A recent study on fishing in Cabo Verde concluded that, "in 2021, the fishing effort and harvest levels exceed those necessary for maximum sustainable yield. To ensure the biological sustainability and growth of fisheries in Cape Verde, a reduction of 17 percent in fishing effort and 9 percent in harvest is recommended" (Brito et al., 2024:1).

Furthermore, Cabo Verde's share of the global tuna market (US $15 million for 10,000 metric tonnes) remains very small. In 2014, a total of 5 million metric tonnes of tuna were landed worldwide, with a direct value of approximately US $10 billion and a final consumer value —after processing and canning — of around US $42 billion (*Pew*, 2016). The top 10 countries in tuna fishing and exports in 2016 were Indonesia, Japan, Taiwan, the United States, the Republic of Korea, Ecuador, Papua New Guinea, the Philippines, Spain and France.

However, expansion to the 2015 levels appears unsustainable, given that the demand for Cabo Verde's fish does not come only from exports or from foreign fleets — the domestic population also relies heavily on fish for their diet. According to Évora (2016:8), "per capita consumption of fish is around 26 kg [per year]". This implies that the total domestic consumption of fish is around 15,000 tonnes. As a result, Cabo Verde needs to import fish to meet the demand.

Figure 20 illustrates that whenever Cabo Verde exports more quantities of fish, their fish imports also increase. Part of this could be "re-exports" of marine products, such as the Spanish owned processing plants on Mindelo. However, it also reflects that domestic consumption, driven by both the population and tourists, is diverting consumption away from local sources to international ones.

Figure 20
Cabo Verde: Total quantity of aquatic imports and exports, 1976—2022
(Tonnes)



Source: UNCTAD, compilation based on data from the FAO Fishery and Aquaculture Statistical Time Series.

3.4 Participation and position in global value chains (GVCs)

This section will consider Cabo Verde's integration into global value chains (GVCs), particularly, regional value chains (RVCs). The objective is to expand and diversify existing exports from Cabo Verde by integrating into networks and upgrading within GVCs. Moreover, this increased participation and upgrading should consider the environmental and social impacts of GVCs, and the efforts to make them more sustainable. By understanding Cabo Verde's position and opportunities in GVCs, policymakers and businesses can identify opportunities for export growth, development and competitiveness in the global economy.

3.4.1 Globalization and the international fragmentation of production

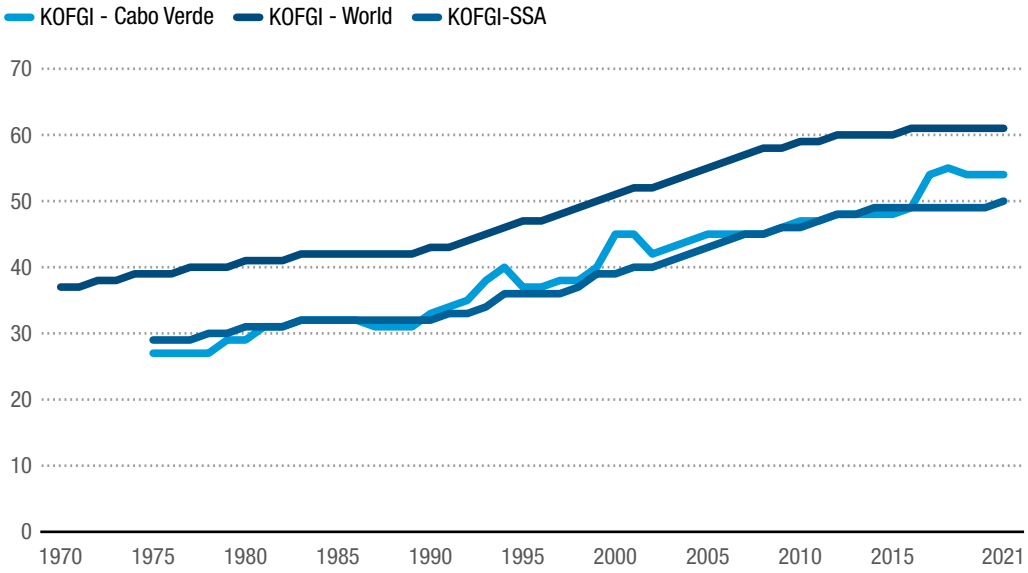
Globalization is a process of increasing interconnectedness between different parts of the world, involving the flow of goods, services, capital, technology, and ideas across national borders. It is a multifaceted concept that encompasses economic, cultural, political, and social dimensions. Based on a large number of measures, such as the share of trade, the mobility of labour and capital, internet connections, and others, the world has become increasingly more globalized over time. This trend has been driven by factors, such as technological advancements (the internet and container shipping), reduced trade barriers, and the rise of multinational corporations.

However, the pace of globalization has fluctuated, with periods of rapid growth followed by periods of slower progress or even setbacks. Since 2009, there has been mention of de-globalization, slowbalization and a fragmentation of global production. Trends such as reshoring and friend-shoring have gained traction after the Global Financial Crisis (2009—2011), the COVID-19 pandemic and the war in Ukraine. Nevertheless, for small islands states such as Cabo Verde, the global economy remains vital for access to resources (e.g. energy, food) and markets (e.g. good exports and tourism).

Figure 21 plots the KOF Globalization Index for the world, Cabo Verde and sub-Saharan Africa. It shows that the 1980s and 1990s up until 2006 was a period of rapid globalization, followed by a period of slower expansion. It also illustrates how the globalization index values for sub-Saharan Africa and Cabo Verde are below the world average. Cabo Verde seems to be slightly more globalized than sub-Saharan Africa, on average. The figure also shows that globalisation in Cabo Verde has stalled since 2017 — well before the onset of the COVID-19 pandemic and subsequent uncertainties created by the war in Ukraine and the United States-China trade tensions.

Given these adverse global trends and the stagnation in globalisation, it suggests that further integration into GVCs may be quite challenging for Cabo Verde, given that the rise and nature of GVCs has been one of the central features of globalisation.

Figure 21
Trends in globalisation: The world, sub-Saharan Africa and Cabo Verde, 1975–2021



Source: UNCTAD, compilation based on the KOF Globalisation Index. Available at: https://kof.ethz.ch/en/forecasts-and-indicators/indicators/kof-globalisation-index.html.

3.4.2 Concepts and definitions

Amador and Cabral (2014:4) state that global value chains, "are probably the most prominent feature of globalisation." With reference to the Global Value Chain Initiative at Duke University, they define a GVC as encompassing "*the full range of activities undertaken to bring a product or service from its conception to its end use and how these activities are distributed over geographic space and across international borders*." According to Banga (2013:4) "a *global value chain can be simply understood as the sequence of all functional activities required in the process of value creation involving more than one country.*"

From these definitions, it is clear that a global value chain is a network of production and trade activities across countries. It represents the full range of activities required to bring a product to market, from its initial design to its final sale to consumers. These activities are often divided among multiple firms and workers located in different countries, creating a global production system. This has been referred to as "vertical specialisation", "outsourcing", "offshoring", "internationalisation of production", "international production sharing", "disintegration of production", "multi-stage production", "intra-product specialisation", "production relocation", "slicing up the value chain", "international segmentation of production", and "fragmentation of production" (Amador and Cabral, 2014).

3.4.3 Profile of global value participation

With the rise of GVCs marking globalisation, several issues have emerged, particularly concerning the measurement and understanding of international trade, and the implications for countries' development process through integration into GVCs.

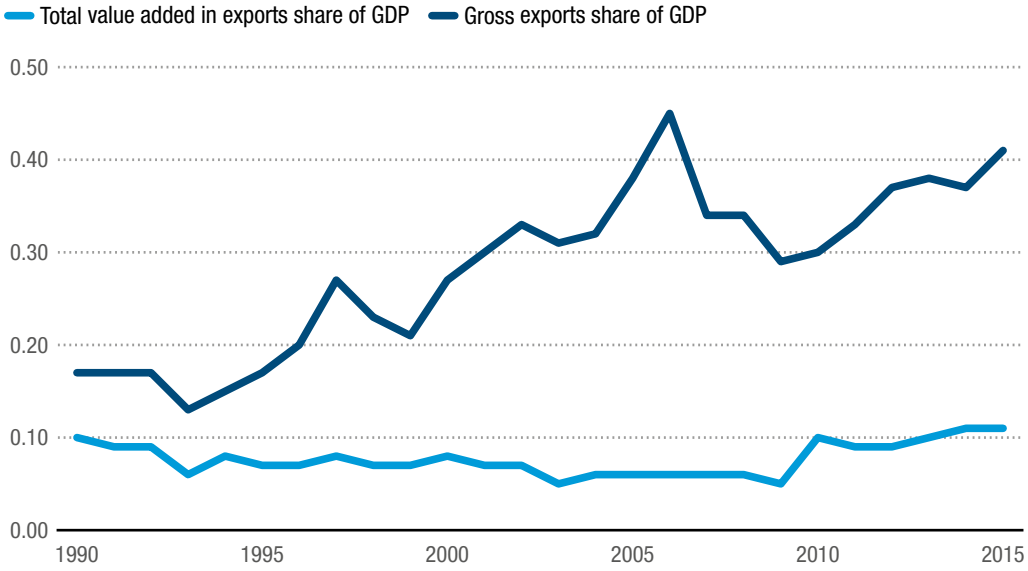
Regarding the measurement and understanding of international trade: the rise of GVCs has highlighted the need to distinguish between a country's *gross exports* — its traditional exports — and its *value-added exports*. The distinction is important and implies that traditional gross exports may overstate exports and double count the value added in the global value

chain. For example, when Cabo Verde imports goods or services, it is importing value that has been added in another country — "upstream." This imported value can be consumed domestically and/or it can be used in exports from Cabo Verde. Cabo Verde will then add its own value —through transport services, packaging, business services, etc. For example, processed fish: Cabo Verde may import raw fish from Senegal, freeze and package it, and export the processed fish to Spain. In Spain, the processed fish may be repackaged, labelled and further processed before being sold to supermarkets in Argentina, where consumers purchase the final product. Thus, Spain's export value added will include value added earlier in Cabo Verde.

To avoid the double counting of these intermediate goods, trade value-added exports is a useful concept to evaluate the nature of a country's integration into GVCs. If the value-added is low, it indicates that a country that is integrated, but that its exports may largely consist of re-exports in which foreign value added is the biggest share.

To calculate value added in exports, researchers rely on the multi-regional Input-Output (I-O) time series datasets that monitor embodied value-added in trade, which is published in the UNCTAD-Eora Global Value Chain database. Figure 22 shows the difference between gross exports and value-added exports as share of GDP from 1990 and 2015 (the period for which data is readily available).

Figure 22
Cabo Verde: Gross exports and value added in exports, 1990–2015
(Share of GDP)

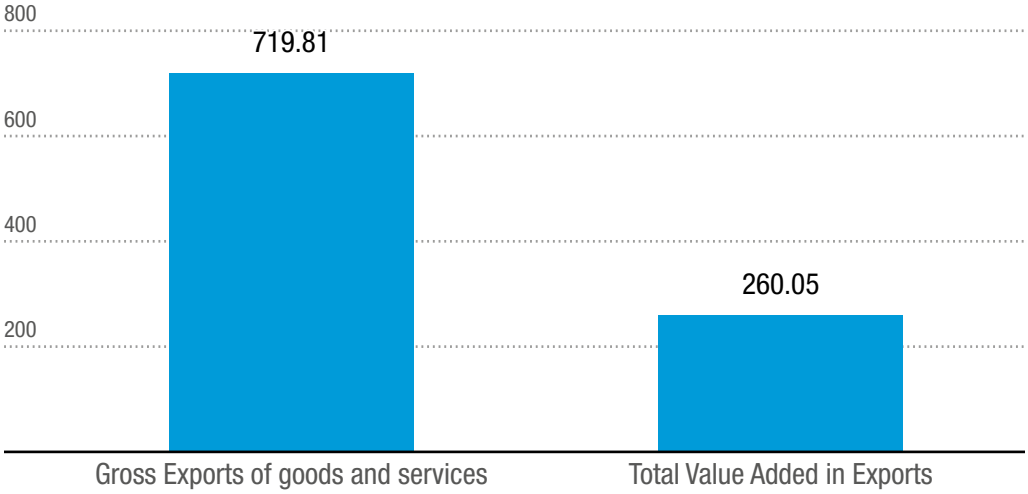


Source: UNCTAD, compilation based on data from UNCTAD-Eora Database.

Figure 22 shows that the total value added in exports by Cabo Verde has remained fairly constant at around 10 –11 per cent of GDP over the period from 1990 to 2015, whereas the country's gross exports have increased from 17 per cent to 41 per cent. This is indicative of little increase in local value added and integration into the GVCs as a re-exporter.

The difference between gross exports and value added in exports is therefore the foreign value added (FVA) in gross exports. This difference is the result of the nature of a country's integration into GVCs. Figure 23 shows this difference for Cabo Verde in 2015, in absolute terms.

Figure 23
Cabo Verde: Gross exports and total value added in exports, 2015
(Current million US dollars)



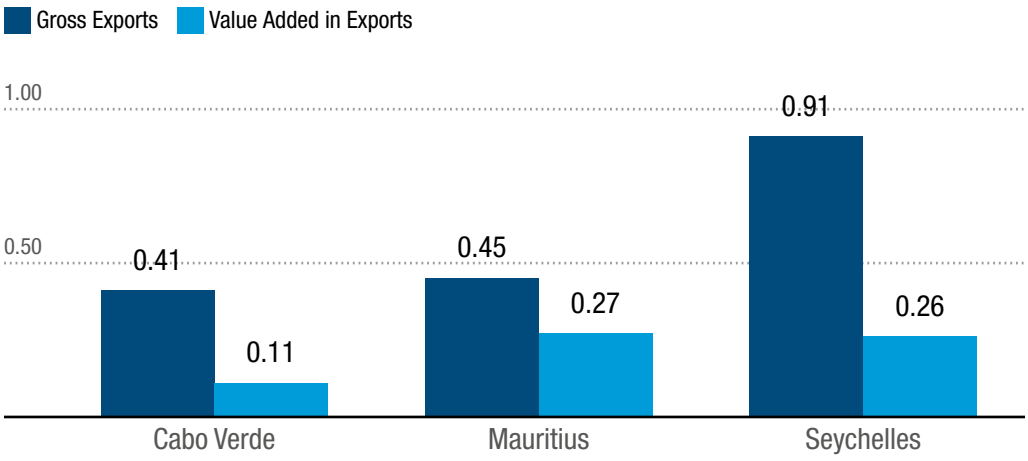
Source: UNCTAD, compilation based on data from UNCTAD-Eora Database.

As noted by Banga (2013), in emerging and developing countries, the difference between gross exports and value added in exports (i.e. the FVA in exports) is larger than in developed countries, where it is typically less than 30 per cent of GDP (e.g. in the United States is approximately 11 per cent). Figure 24 shows this comparison among African SIDS for which data is available.

In the case of Cabo Verde, the FVA difference is 30 per cent compared to 18 per cent for Mauritius and 64 per cent for Seychelles. Notably, Seychelles — which has a much higher share of gross exports than any other African small island developing State — is more comparable to shares in Singapore and China. The figure shows that of these SIDS, Cabo Verde had the lowest share of value-added exports in GDP in 2015.

Figure 24
African SIDS: Gross exports and total value added in exports, 2015

(Share of GDP)



Source: UNCTAD, compilation based on data from the UNCTAD-Eora Database.

The second issue — the contribution to which integration into GVCs contributes to economic development in developing countries — necessitates consideration of the governance of the GVCs in which a country's sectors are mainly integrated with; specifically, whether it is buyer-driven or producer driven and whether a country is more involved in upstream or downstream processing in the GVCs.

Upstream or downstream processing are measured by calculating "forward participation" in GVC rates and "backward participation" in GVCs. Forward participation — reflected in indirect value added (denoted DVX) in another country's exports — measures exports of intermediate goods that are used in the production of exports of other countries. An example is Cabo Verde's exporting raw fish to Spain for processing and then re-exported by Spain to other countries.

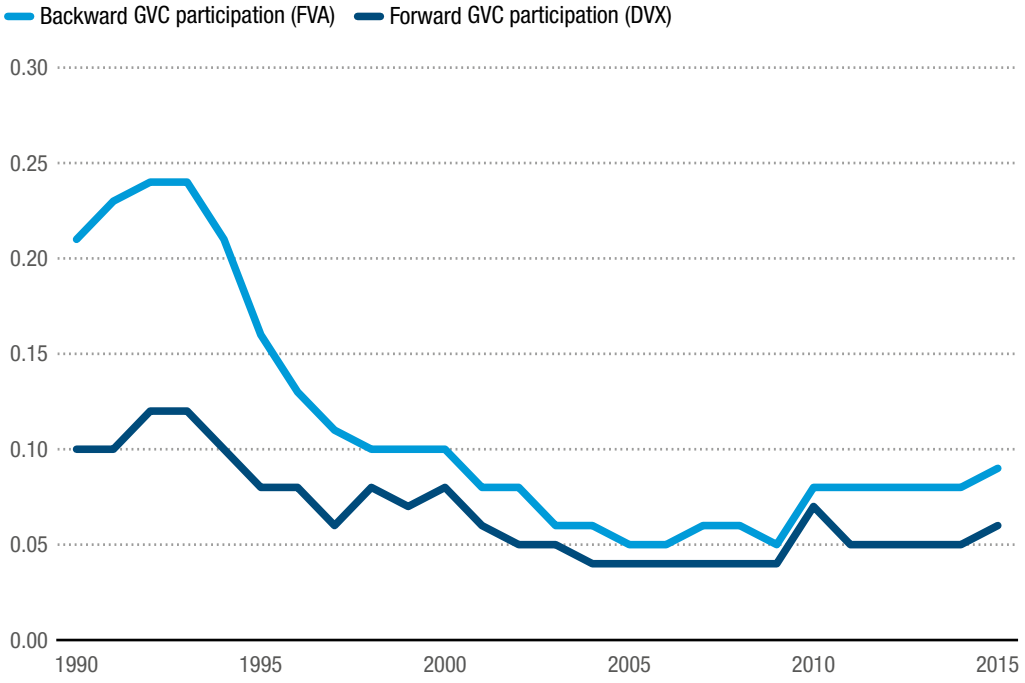
Forward participation thus indicates a country's upstream integration in GVCs.

Backward participation, also referred to as foreign value added (FVA) embodied in a country's exports, measures imported intermediate inputs that are used to generate Cabo Verde's exports.

Figure 25 shows Cabo Verde's forward (DVX) and backward (FVA) participation in GVCs as a share of gross exports. Its shows that GVC particpation rates declined since the late 1990s, but have increased somewhat since the 2009 Global Financial Crisis, particularly in the case of backward GVC participation. Figure 25 also shows that Cabo Verde has slightly greater backward GVC participation than forward. Examples of backward GVC activities in Cabo Verde are seafood processing — such as cleaning, filleting, and freezing fish for export — and textile manufacturing that produces basic garments or textiles for export.

Backward GVC activities in Cabo Verde are seafood processing and textile manufacturing.

Figure 25
Cabo Verde: Forward and backwards participation in GVCs, 1990–2015
(Share of gross exports)



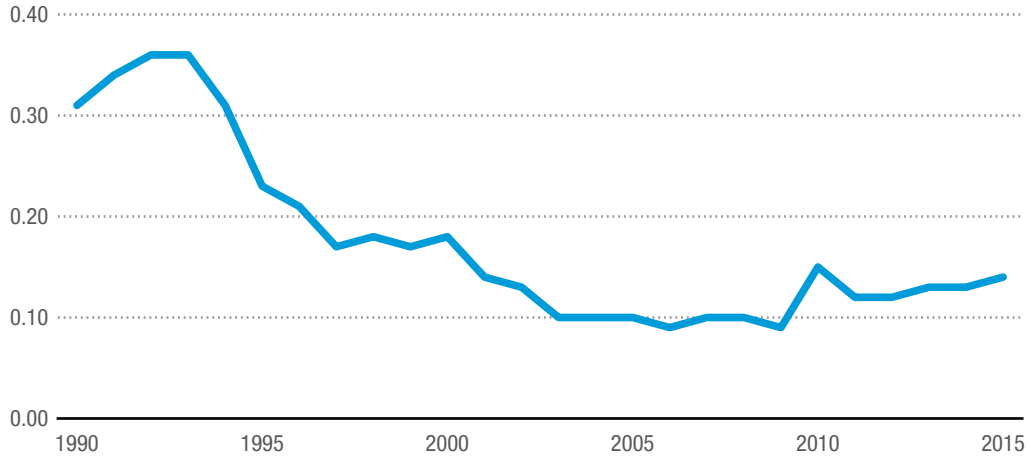
Source: UNCTAD, compilation based on data from the UNCTAD-Eora Database.

The measures of forward and backward integration can be combined to calculate a GVC Participation Index, which is obtained as follows (Aslam et al., 2017):

$$GVC_{participation\ index} = \frac{FVA + DVX}{Gross\ Exports}$$

The GVC participation index provides an overall measure of the extent of a country's GVC participation. The larger the index value (in %), the greater the country's integration into GVCs. Figure 26 plots the GVC Participation Index for Cabo Verde.

Figure 26
Cabo Verde: Global Value Chain Participation Index
(Share of gross exports)



Source: UNCTAD, compilation based on data from the UNCTAD-Eora Database.

Figure 26 indicates that in 2015, about 14% of gross exports in Cabo Verde were due to GVC participation. It is useful to analyse the GVC Participation Index together with the GVC Position Index to see how they are changing over time. The GVC position, defined by Koopman et al (2014) can be calculated as follows (Aslam et al, 2017:17):

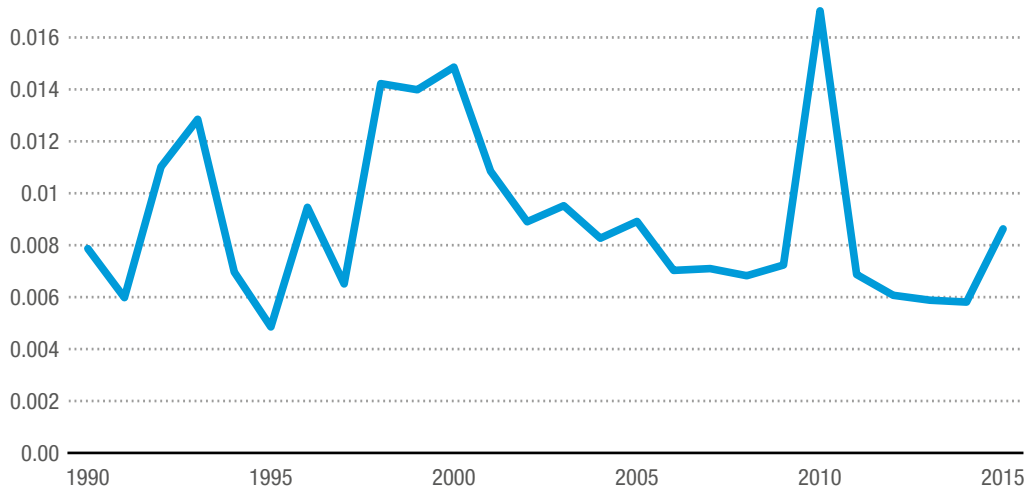
$$GVC_{position} = \ln\left(1 + \frac{DVX}{Gross\ Exports}\right) - \ln\left(1 + \frac{FVA}{Gross\ Exports}\right)$$

This provides a measure of how "upstream" a country's GVC participation is: the higher the value, the relatively more "upstream" a country's participation in GVCs is (they contribute more value added to other countries exports than other countries contribute to theirs) (Aslam et al., 2017:17).

For Cabo Verde, the GVC Position Index is depicted in figure 27. It shows that Cabo Verde has a relatively low GVC Position Index value, indicating that the log ratio of Cabo Verde's exports of intermediates used by other countries in their exports is low compared to the use by Cabo Verde of imported intermediates in its own exports. In other words, Cabo Verde contributes less value added to other countries exports than other countries exports contribute to Cabo Verde's exports. It is more involved downstream in GVCs.

The figure also shows that Cabo Verde's Position Index has slightly declined over time, and has a negative trend. This suggests a slight movement further downstream since 2009. This slight movement downstream has coincided with an increase in GVC participation. Generally, such a downstream move is positively associated with economic development.

Figure 27
Cabo Verde: GVC Position Index, 1990—2015



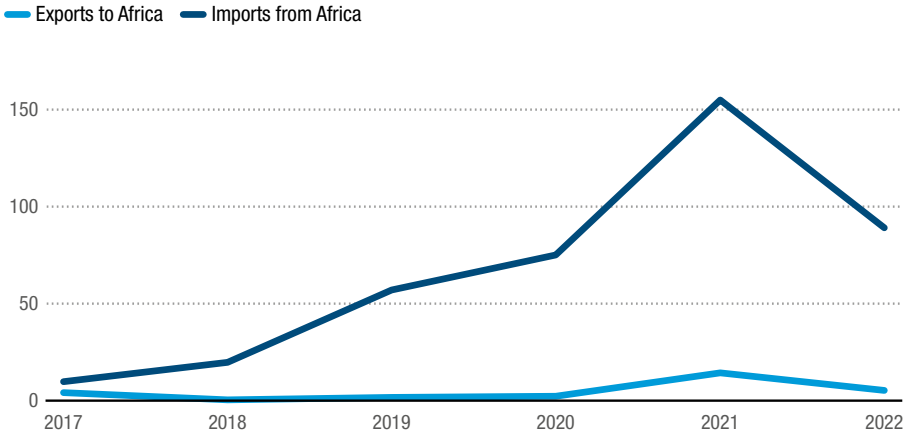
Source: UNCTAD, compilation based on data from the UNCTAD-Eora Database.

3.5 Trade with Africa

With regard to Cabo Verde's trade with the rest of Africa, the figures are relatively low, as presented in Appendix G — on average, only 4.3 per cent of Cabo Verde's exports between 2017 and 2022 were destined for other African countries, and only 7 per cent of its imports over the same period were sourced from Africa.

Figure 28 depicts the trends in total goods exports and imports between Cabo Verde and the rest of Africa between 2017 and 2022, using the mirror-data approach of CEPII/BACI.

Figure 28
Trade in goods between Cabo Verde and the rest of Africa, 2017–2022
(Current million US dollars)



Source: UNCTAD, compilation based on CEPII/ BACI data. See https://www.cepii.fr/cepii/en/bdd_modele/bdd_modele_item.asp?id=37.

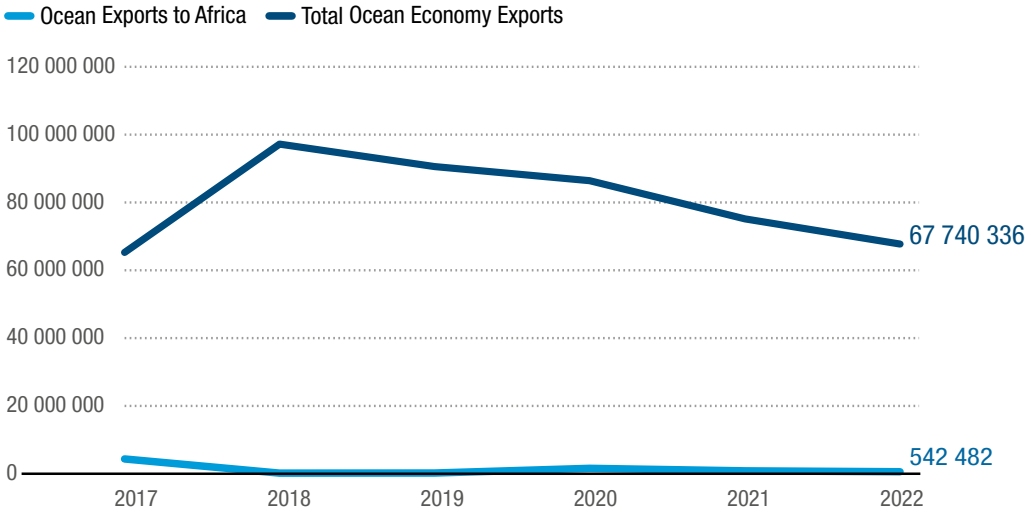
Figure 28 shows that there has been a sharp increase in imports by Cabo Verde from the rest of Africa since 2017 — an average increase of 162 per cent per annum. The

value of imports reached a maximum of US $154 million in 2021, before declining to US $89 million in 2022. Exports to Africa also grew over this period, but at a slower rate - by an annual average of 6 per cent and reaching a high of US $14 million in 2021.

The table in Appendix G shows Cabo Verde's exports and imports of goods with the rest of the Africa region and provides more detail on the skill and technology levels of this trade. Virtually all (93 per cent) of Cabo Verde's exports to Africa consist of either resource-intensive manufactures, mineral fuels and non-fuel primary commodities. In turn, Cabo Verde largely imports (86 per cent) medium skill- and technology-intensive manufactures and mineral fuels from Africa.

Appendix H focuses on the Cabo Verde's trade with Africa in terms of ocean economy goods, as per UNCTAD's Ocean Economy Classifications and UNCTADstat Ocean services trade[33]. Figure 29 indicates that the share of Cabo Verde's ocean economy exports is even lower than the total export share going to Africa, at 0.8 per cent of total ocean economy exports in 2022.

Figure 29
Cabo Verde's ocean economy exports to Africa, 2017–2022
(US dollars)



Source: UNCTAD, compilation based on CEPII/ BACI data. Available at: https://www.cepii.fr/cepii/en/bdd_modele/bdd_modele_item.asp?id=37.

Table 4 shows that, in 2023, the main export destinations for Cabo Verde were Spain, Italy, the United States, Cuba, Nigeria, and Portugal. Like most other SIDS, Cabo Verde trades very little with other SIDS, and mainly trades with a large continental partner that is geographically close and where there are historical and linguistic/cultural ties. In 2023, the only African countries that Cabo Verde exported to in 2023 were Nigeria, the State of Libya and Algeria — all fish products. If one considers the current total pattern of Cabo Verde's trade with other African countries — in light of the AfCFTA and in order to identify possible opportunities for greater participation in RVCs — then Table 5 summarises the most recent export and imports of goods (at the 4-level HS code) between Cabo Verde and the rest of Africa.

[33] See https://unctadstat.unctad.org/datacentre/reportInfo/US.OceanServices.

Table 4
Destination of Cabo Verde's exports of fish, 2023

Importing country	Prepared or preserved fish exports Thousands of US dollars, 2023	Share (%)	Average tariff faced by Cabo Verde (%)
Spain	25,686	77.7	0
Italy	6,217	18.8	0
United States of America	851	2.6	0
Cuba	99	0.3	14
Nigeria	87	0.3	0
Portugal	53	0.2	0
Libya, State of	41	0.1	0
Algeria	17	0.1	30

Source: UNCTAD, compilation based on data from the ITC's Trade Map.

In 2023, the total share of Cabo Verde's exports destined for other African countries was only 0.4 per cent (US $173,000). The main destination was Nigeria (US $115,000). While Cabo Verde exports only a very small amount to the rest of Africa, it imports substantially more. In 2023, total imports of goods from Africa amounted to around US $47 million, representing about 5 per cent of Cabo Verde's total imports that year.

Table 5 also shows that in 2023, the major African countries from which Cabo Verde imported goods were: Togo (US $31 million or 67 per cent of total imports from Africa), Senegal, Morocco and Ghana. The main import from Togo was mineral fuels, mineral oils and products of their distillation (HS 27). In short, Cabo Verde imports energy from Togo. Similarly, the Cabo Verde's sole import from Ghana was mineral fuels, mineral oils and products of their distillation (HS 27).

In 2023, the total share of Cabo Verde's exports destined for other African countries was only 0.4 per cent.

Table 5
Cabo Verde's total goods trade with Africa, 2023

(Thousands of US dollars)

Country	Exports	Imports
Algeria	17	0
Angola	0	1
Burkina Faso	0	15
Cameroon	0	27
Central African Republic	0	116
Côte d'Ivoire	0	150
Egypt	0	521
Eswatini	0	11
Ethiopia	0	33
Ghana	0	2,169
Guinea-Bissau	0	84
Kenya	0	62
Libya	41	0
Mauritania	0	18
Morocco	0	3,886
Mozambique	0	2
Namibia	0	26

Country	Exports	Imports
Nigeria	115	390
Senegal	0	7,043
South Africa	0	148
Togo	0	31,717
Tunisia	0	453
Uganda	0	121
AFRICA TOTAL	**173**	**46,993**

Source: UNCTAD, compilation based on data from the ITC's Trade Map.

Cabo Verde imports a broader range of goods from Senegal than it does from Togo or Ghana. Appendix I lists Cabo Verde's total imports from Senegal in 2023, showing that while Cabo Verde did not export any goods to Senegal that year — and is unlikely to export tuna, given that Senegal is one of the major fishing hubs[34] in West Africa with a tuna fleet and industry going back to the early 1980s — it imported over US $7 million worth of goods across more than 60 distinct products. The three main imports were:

- Electrical machinery and equipment and parts thereof; sound recorders and reproducers, televisions;
- Essential oils and resinoids; perfumery, cosmetic or toilet preparations; and
- Tobacco and manufactured tobacco substitutes; products, whether or not containing nicotine.

Cabo Verde also imported almost US $10,000 in art and antiques from Senegal in 2023, some of which were perhaps destined to be sold to tourists. In short, Cabo Verde's main imports from Senegal consist of electronic devices (TVs), perfumes and cigarettes.

Regarding imports from Morocco, Appendix J lists Cabo Verde's total imports from Morocco in 2023. The main imports from Morocco were:

- Mineral fuels, mineral oils and products of their distillation;
- Sugars and sugar confectionery; and
- Salt; sulphur; earths and stone; plastering materials, lime and cement.

One way to assess the potential for greater trade between Cabo Verde and the West African region, is to consider both the export opportunities for Cabo Verde in West Africa, and the opportunities for Western Africa countries to export to Cabo Verde. In this respect, the ITC's Export Potential Map indicates that the total value of additional exports to Cabo Verde is quite small, estimated at less than US $3 million. The products with greatest export potential from Western Africa to Cabo Verde are Portland cement; soups, broths and preparations; and sawn or chipped wood,. Portland cement shows the largest absolute difference between potential and actual exports in value terms, leaving room to realize additional exports worth US $1.6 million.

As previously indicated, these figures are based on directly reported export statistics. However, due to the large "missing" export data, it is necessary to reconsider this data using the mirror data (see Appendix B).

[34] Senegal is the 23rd largest exporter of non-fillet frozen fish in the world.

3.6 Trade with the Economic Community of West African States (ECOWAS)

Table 6 shows that Cabo Verde's goods trade with the other 14 members of ECOWAS was negligible over the 2021—2023 period, amounting to just over US $4 million in combined exports and imports. For 8 of the 14 countries, no trade flows were recorded. Among ECOWAS countries, Senegal was by far Cabo Verde's largest trading partner. Overall, Cabo Verde imported more from ECOWAS than it exported to them during the period.

Table 6
Goods trade between Cabo Verde and ECOWAS, 2021–2023

(Thousands of US dollars)

Country	Imports from Cabo Verde	Exports to Cabo Verde
Benin	0	1
Burkina Faso	6	0
Côte d'Ivoire	21	184
Gambia	0	0
Ghana	31	463
Guinea	0	0
Guinea-Bissau	0	0
Liberia	18	0
Mali	0	0
Niger	0	0
Nigeria	58	0
Senegal	4,165	4,029
Sierra Leone	0	0
Togo	7	11
Total	**4,306**	**4,688**

Source: UNCTAD, compilation based on data from the ITC Trade Map.

Table 7 provides more detail on the goods trades between Cabo Verde and ECOWAS over the 2021–2023 period, focusing on the six countries with which positive trade was recorded.

Table 7
Details of goods traded between Cabo Verde and ECOWAS, 2021–2023

Country	Main imports from Cabo Verde	Main exports to Cabo Verde
Côte d'Ivoire	Articles of iron or steel; Furniture	Pasta; Wood; Petroleum oils
Ghana	Hand tools; Meat and edible offal; Rubber tyres	Wood; Spirits, liqueurs; Petroleum oils
Liberia	Electric instantaneous or storage water heaters	
Nigeria	Residues and waste from the food industries; Fish; Optical, photographic, cinematographic tools	
Senegal	Petroleum gas; Pharmaceutical products	Cigars and cigarettes; Frozen fish; Mineral waters; Cotton
Togo	Monitors and projectors; Reception apparatus for radio-broadcasting; Refrigerators	Calendars of any kind, printed, incl. calendars; Orthopaedic appliances, incl. crutches; Petroleum oils

Source: UNCTAD, compilation based on data from the ITC Trade Map.

Table 7 shows that during the period 2021–2023, Cabo Verde exported a diverse range of goods to ECOWAS countries – but only exported fish to Nigeria. Apart from the fish exports to Nigeria, none of the goods exported to the rest of ECOWAS were goods in which Cabo Verde currently has a revealed comparative advantage (RCA).

Cabo Verde's imports from ECOWAS between 2021 and 2023, was largely wood – likely used for construction and furniture production – as well as other diverse articles for consumption, such as pasta, spirits, liqueurs, cigars, cigarettes, mineral water, calendars and orthopaedic appliances. It can also be seen that Cabo Verde imports fish from Senegal, which has a rather large and established fishing fleet. This imported fish would be for local consumption, but also for processing and re-export, mostly on the island of Mindelo, which provides Cabo Verde with its current position as a small downstream producer in the tuna value chain.

Finally, to evaluate possible opportunities for expanding trade between Cabo Verde and the ECOWAS region – and to provide some explanation for the low levels of trade, Table 8 lists the main imports and exports of each of Cabo Verde's ECOWAS trading partners.

Table 8
Main import and export products of Cabo Verde's ECOWAS trading partners, 2021–2023

Country	Main imports, 2022	Main exports, 2022
Benin	Cereals (rice and wheat); Petroleum oils	Cotton; Oil seeds and oleaginous fruits
Burkina Faso	Petroleum oils and gas; Electrical energy	Natural or cultured pearls, precious or semi-precious stones; Cotton; Fruits
Côte d'Ivoire	Mineral fuels, mineral oils and products; Cereals (rice and wheat)	Cocoa beans; Petroleum oils; Gold
Gambia	Petroleum oils; Motor cars	Petroleum oils; Machine tools; Nuts
Ghana	Petroleum oils; Motor cars and vehicles; Cement	Gold; Petroleum oils; Cocoa beans and paste; Nuts
Guinea	Petroleum oils; Rice and wheat; Cigars and cigarettes	Aluminium ores; Gold; Nuts
Guinea-Bissau	Petroleum oils; Bars and rods of alloy steel; Rice; Mineral waters	Nuts; Frozen fish; Fats and oils and their fractions of fish or marine mammals
Liberia	Petroleum oils; Rice; Motor vehicles; Cement	Natural rubber; Fuel wood; Palm oil
Mali	Petroleum oils; Medicaments; cement; Gold; Rice	Gold; Cotton; Live bovine animals
Niger	Rice; Cement; Aircraft	Uranium or thorium ores; Petroleum oils; Gold; Onions
Nigeria	Petroleum oils; Wheat; Motor cars; Sugar; Fish	Petroleum oils and gas; Nitrogenous fertilisers; Light-vessels, fire-floats, dredgers, floating cranes
Senegal	Mineral fuels; Cereals (rice and wheat); Broilers	Petroleum oils; Gold; Phosphoric acid; Frozen fish
Sierra Leone	Rice; Petroleum oils; Cement	Iron ores and concentrates; Titanium ores and concentrates; Diamonds; Wood
Togo	Petroleum oils; Polymers of ethylene; Medicaments	Natural calcium phosphates; Articles for the conveyance or packaging of goods, of plastics; Stoppers, lids, caps; Petroleum oils

Source: UNCTAD, compilation based on data from the ITC Trade Map.

Table 8 shows that the main imports of the ECOWAS countries are goods that Cabo Verde does not export, or does not have an RCA in. This includes, most notably, petroleum oils – perhaps the single most important import across

ECOWAS – and cereals (mainly rice and wheat), the second most important import in ECOWAS. Cabo Verde is not a notable exporter of either product and has little potential to produce cereals at significant scale, given land and water scarcity.

Several other ECOWAS countries do produce and export petroleum oil, including the Gambia, Ghana, Niger, Nigeria, Senegal and Togo. As a result, intra-ECOWAS trade will likely be dominated by petroleum trade between all petroleum oil-exporting and petroleum oil-importing countries. Cabo Verde can participate in this trade as an importer. In 2023, petroleum oil was also Cabo Verde's single largest goods import, valued at US $124 million. During this period, the ECOWAS countries from which Cabo Verde imported petroleum oils was from Togo, Ghana and Côte d'Ivoire; Most of the remainder came from Portugal, France the Netherlands and the United Arab Emirates. Given the geographic proximity of ECOWAS, and provided that port handling and transport costs can be efficient and done at competitive costs, there is potential for Cabo Verde's petroleum needs that may be satisfied by regional trade.

Regarding the exports of Cabo Verde's ECOWAS partners, apart from petroleum oil, ECOWAS countries are notable exporters of cotton, nuts, cocoa and fruits. Cabo Verde could explore additional opportunities to import more of these goods from ECOWAS. For instance, cotton could be an important input for the clothing and textile manufacturing industry – a sector where it has shown a comparative advantage and where exports have increased in recent years. In 2023, Cabo Verde imported around US $150,000 worth of cotton, mostly from China, Portugal and France. Senegal was the only ECOWAS country from which Cabo Verde imported cotton from during this period. Again, if ECOWAS countries can provide these inputs competitively, more of Cabo Verde's trade could be diverted to the region.

Finally, table 8 explains why current trade between Cabo Verde and ECOWAS remains limited. Countries tend to export and import roughly similar products – particularly those tied to major global value chains and dominated by buyers and producers located outside of Africa, such as petroleum, cereal, gold, and fish. Cabo Verde is currently unable to provide the major import needs of most ECOWAS countries.

However, in the future, if the benefits of the AfCFTA are manifested – such as through reduced intra-region tariffs, improvements in transport, and more efficient port handling – then the market for Cabo Verde's comparative advantages, such as fish, tourism, clothing, recycled metals and wastes will present opportunities for increased exports at the intensive margin. Over the longer term, exports on the extensive margin may also benefit. For example, several ECOWAS countries import mineral water and electricity. If Cabo Verde's investments in renewable energy and desalinated water prove successful, future exports of energy and water to ECOWAS should not be ruled out.

Cabo Verde's comparative advantages such as fish, tourism, clothing, recycled metals present export opportunities to Africa.

Chapter 4

Identifying opportunities for export expansion

4.1 Revealed comparative advantage

To consider any further opportunities for expanding Cabo Verde's exports – both at the intensive and extensive margins – it is useful to evaluate the consistency of the opportunities discussed in this section and to consider the Revealed Comparative Advantage (RCA) of Cabo Verde.

The Balassa Index is a common method for calculating RCA. It compares a country's share of world exports in a specific product to its overall share of world exports. As explained by UNCTADStat, Country A is said to have a revealed comparative advantage in a given product i when its ratio of exports of product i to its total exports of all goods (products) exceeds the same ratio for the world as a whole:

$$RCA_{Ai} = \frac{\frac{X_{Ai}}{\sum_{j \in P} X_{Aj}}}{\frac{X_{wi}}{\sum_{j \in P} X_{wi}}} \geq 1$$

Where P is the set of all products (with $i \in P$), X_{Ai} is the country A's exports of product i, X_{wi} is the worlds's exports of product I, $\Sigma_{j \in P} X_{Aj}$ is the country A's total exports (of all products j in P), and $\Sigma_{j \in P} X_{wj}$ is the world's total exports (of all products j in P).

If RCA >1, a country is a competitive producer and exporter of that product, "and is considered to have an export strength in that product. The higher the value of a country's RCA for product i, the higher its export strength in product i" (UNCTADStat). Table 9 lists all products – at the one-digit HS level – for which Cabo Verde has a RCA (i.e. RCA>1).

Table 9
Revealed comparative advantage, Cabo Verde, 2022

Product	RCA	Export value, 2022 Thousands of US dollars
Food and Live Animals:		
• Fish, aqua-preparerd and preserved	275.3	24,322
• Crustaceans, mollusks	35.4	2,737
• Fish, fresh, chilled or frozen	9.5	1,541
• Feeding stuff for animals	5.1	1,176
• Other cereal meals and flour	3.9	17
• Fruit and vegetable juices	2.1	67
• Cereal preparations	1.3	192
• Spices	2.4	60
Miscellaneous Manufacturing:		
• Men's or boy's Clothing	12.5	943
• Footwear	5.0	1,696
• Articles of apparel or textile fabrics	3.1	1,171
• Men's clothing of textile fabrics, knitted	3.9	650
• Measuring, analysing and controlling apparatus	1.9	895
• Baby carriages, toys, games, sporting goods	3.3	1,114
Crude Materials:		
• Ferrous waste, scrap	17.9	1,822
• Non-ferrous base metal waste and scrap	10.8	1,326
• Worn clothing and other worn textiles	9.8	121
• Pulp and waste paper	2.4	269
• Other crude minerals	1.6	97
Beverages and Tobacco:		
• Alcoholic beverages	1.7	332
• Tobacco, manufactured	1.3	87
Other products:		
• Aircraft and associated equipment	1.6	458
• Insecticides & similar for retail	1.3	124
• Animal oil & fats	5.1	91
• Liquified propane and butane	10.8	2,314

Source: UNCTAD, compilation based on UNCTADStat.

As shown in table 9, the top 10 products for which Cabo Verde has the highest RCA are:

1. Fish, aqua - prepared and preserved
2. Crustaceans and mollusks
3. Ferrous waste and scrap
4. Men's or boy's clothing
5. Non-ferrous base metal waste and scrap
6. Liquified propane and butane (not currently exported, but exported in 2022 – see table 9)
7. Worn clothing and other worn textiles
8. Fish, fresh, chilled or frozen
9. Animal oils and fats
10. Footwear

These are the products that currently constitute the bulk of Cabo Verde's goods exports. The analyses in the previous section has shown that there is still scope for expansion of these exports, i.e. for export growth at the intensive margin.

4.2 Export opportunities by relatedness

Given that Cabo Verde is not a strong goods exporter – and mainly exports fish to a few countries in Europe and the United States – the question is: Where is the scope to grow Cabo Verde's exports, and, moreover, to what extent can this growth be driven by utilising opportunities in Africa?

According to the Observatory of Economic Complexity (OEC)[35], the top merchandise export opportunities for Cabo Verde, based on the Relatedness Index are:

- Non-fillet fresh fish
- Fish: dried, salted, smoked or in brine
- Tropical fruits
- Knit men's shirts
- Processed Crustaceans

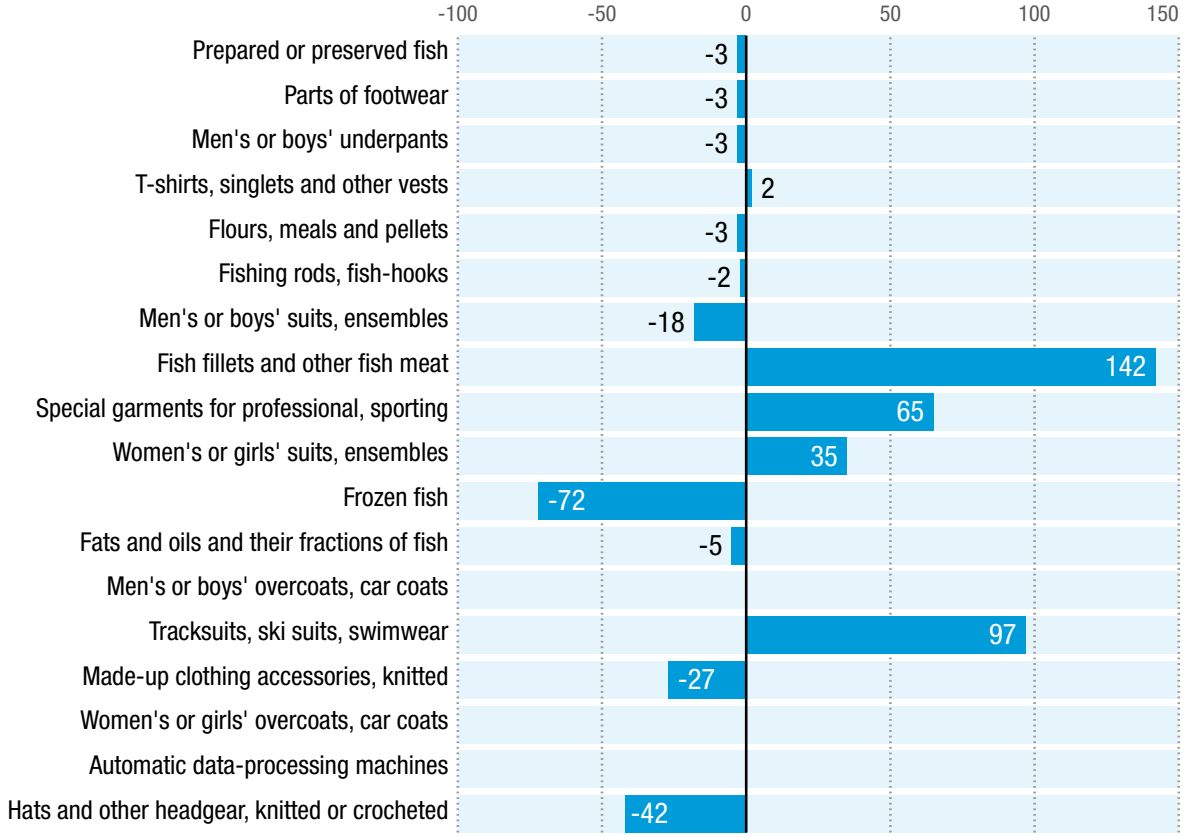
The OEC identifies an opportunity for service exports, namely in sea transport services. These are all opportunities for export expansion on the extensive margin. It is evident that these opportunities relate closely to current export patterns, which are fish and textile dominated (with perhaps the exception of tropical fruits). Whether the latter is indeed an export opportunity is doubtful, as a result of the arid climate, limited arable land and distance from major tropical fruit importers.

4.3 Export opportunities by achieved growth

Another view on potential export opportunities is to consider trends in exports, as reflected in the growth rates over the past five years. Figure 30 shows the growth rates in exported products from Cabo Verde.

[35] https://oec.world/en/profile/country/cpv#latest-data.

Figure 30
Growth exports per HS codes from Cabo Verde, 2019-2023
(Percentage of annual growth, average 2019-2023)



Source: UNCTAD, compilation based on data from the ITC's Trade Map.

Figure 30 shows that there were four goods where exports achieved rather high growth rates (albeit from a small base), namely fish fillets, sporting garments, tracksuits, ski suits and swimwear, and women's or girl's suits.

4.4 Global export opportunities according to the International Trade Centre (ITC) Export Potential Map

Another source to investigate new export opportunities for Cabo Verde is the International Trade Centre (ITC) Export Potential Map[36]. According to this map, Cabo Verde has an estimated US $54 million in unutilized export opportunities to the rest of the world.

However, this estimate is based on the direct method of valuation, which does not take into consideration the potential under-reporting of actual exports that have been revealed when considering the mirror-exports of Cabo Verde.

Table 10 below presents the estimated total market potential for Cabo Verde's main products according to the direct method, the estimated unrealized export potential, and

[36] See https://exportpotential.intracen.org/.

also, as a check for the total exports of the good according to the mirror-exports data.

The data confirms that the main export opportunities are still tuna and mackerel, but not prepared fish, line fishing tackles and flours. The opportunities for items such as men's trousers, footwear and mackerel may be somewhat greater when using mirror exports, rather than directly reported exports.

Table 10
Unrealized export potential to the rest of the world for Cabo Verde

HS Code	Product	Export potential according to the ITC (Millions of US dollars)	Estimated unrealised export potential (Millions of US dollars) by the ITC	Exports per mirror-estimates (Millions of US dollars)
160414	Tunas, prepared/preserved	53	35	29.9
160415	Mackerel, prepared/preserved	18	5,2	12.2
160419	Fish, prepared and preserved	7.7	3.7	8.0
640610	Footwear uppers and parts	5.1	2.1	2.9
610990	T-shirts & vests knit	2	1.9	1.1
610711	Men's underpants & briefs of cotton	2	1.8	1.1
620342	Men's trousers and shorts of cotton	1.9	1.7	0.6
950790	Line fishing tackle	1.6	0.6	2.2
230120	Flours and pellets of fish	1.4	0.3	2.1
610910	T-shirts & vests of cotton	1.4	1.3	0.9

Source: UNCTAD, based on data from the ITC Export Potential Map and CEPII.

These considerations suggest that, in order to answer the question if whether Cabo Verde can diversify its exports, one would have to analyse opportunities in fish production, aquatic trade, related sea transport services and textiles (clothing, footwear). These sectors are where Cabo Verde has access to a resource base, has experience, and existing production systems and networks, and where adjacent opportunities, such as sea transport, are possible.

4.5 Conclusions

In conclusion, there appears to be little scope for a sustainable increase in exports of raw tonnes of fish from Cabo Verde. The key challenges are finite marine resources and the increased material and ecological footprint with intensified fishing. Efforts by the Cabo Verde government to be involved in various regional and international fisheries management organizations, and sustainable ocean bodies, such as the West African Regional Fisheries Commission (WAFRO), are all laudable and promote regulation fishing activities, more sustainable resource management and a relative decoupling of resource use from economic growth by obtaining more efficiencies in fish production. These activities and their efficiency gains should be intensified.

Another perspective is useful. Although skipjack tuna – the main fish export from Cabo Verde – is not threatened by overfishing, the margin of safety is low. Moreover, tuna has an important value when it is left in its natural environment, which is unfortunately not monetized. This is because tuna plays an ecological stabilising role in open ocean ecosystems as both predator and prey (e.g. for sharks).

Refraining from expanding tuna fishing clearly has much value for Cabo Verde.

Furthermore regulating a fisheries industry to achieve both high growth and job creation while maintaining fishing stocks is extremely complex. As Évora (2016:6) discusses, the complexities are:

- Fishing stocks suffer from "commons" problems, leading to overfishing;
- Different fishing vessels and catching methods affect stocks differently;
- Different species and differently aged fish have different implications; and
- The capital embodied in fishing tends to be non-malleable, creating lock-in effects.

Given these complexities, further research is needed to assess the feasibility and sustainability of exporting more raw fish material from Cabo Verde. Most of the scope for generating more exports from Cabo Verde's aquatic resources will be to increase the value added from their fisheries products – through supporting more local processing, canning and other value-added activities. This can enhance export earnings and create additional employment opportunities. Supplying more processed fish to the local tourism industry (e.g. hotels and restaurants) will also provide a, lower carbon footprint – alternative, as most of the current tuna markets are around 3,000 km from Cabo Verde.

Other opportunities for export expansion include Cabo Verde's geographical location, positioned between Europe, Africa and the Americas. This strategic location has made it a crucial stopover for maritime trade routes. After its discovery around 1620, the islands have served as a stage post, a trade hub with West Africa, and later, the slave trade. This facilitated the island's early economic development, as discussed in section 2.

The island's location is still advantageous for maritime trade, although its role as a major shipping hub has been diminished. However, the archipelago's strategic position could still be leveraged for developing logistics and transportation services, and is important, in terms of tourism – it is only a four-hour flight from Portugal[37]. Also, the geographical location of the islands could be leveraged for maritime surveillance, monitoring maritime traffic and security, and serving as a potential base for counter-terrorism operations in the region.

Furthermore – as elaborated more below – Cabo Verde's geography offers abundant solar and wind resources, which could form the basis of local renewable energy production and export sector. Cabo Verde will require 150 megawatts-peak (MWp) of new solar projects and more than 60 MW of new wind farms to achieve the government's objective of generating 50 per cent of its energy from renewables by 2030[38]. The islands have seen the development of several large-scale solar power plants since 2010, including one of the first, the Praia Solar Farm, which was at the time the largest in Africa[39]. Additionally, in 2021, the government of Cabo Verde commissioned a feasibility study into green hydrogen production.

Most scope for generating more exports from aquatic resources will be through value addition to fisheries products.

[37] There are four international airports on the islands: Amílcar Cabral International Airport, Nelson Mandela International Airport, Aristides Pereira International Airport and Cesária Évora Airport.

[38] https://www.trade.gov/country-commercial-guides/cabo-verde-renewable-energy.

[39] It started in 2010 covering an area of 13 hectares, producing 5 MW of power. See https://www.gn-sec.net/news/largest-solar-pv-africa-inaugurated-praia.

Chapter 5

The blue economy entrepreneurial ecosystem approach

Sustainable Development Goal 8: Decent Work and Economic Growth aims to promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all. Export growth can contribute to these objectives by creating jobs, generating foreign exchange for investment, and improving living standards. Exports are important to Cabo Verde's economy for all of these reasons.

5.1 The need for and limitations of export growth on the intensive margin

Further growth in exports on both the intensive and extensive margins are required in Cabo Verde in order to contribute to the government's development goals and progress towards the Goals. SMEs in the ocean economy have an important development contribution to make:

1. Food and nutrition: help feed the local population. "Achieving SDG 2 (Zero hunger) will [...] not be possible in many places without sustained or strengthened contributions from aquatic foods, for which small-scale fisheries will have to play a prominent role" (FAO et al., 2023:XL).
2. Creators of jobs and incomes to sustain livelihoods and the local economy.
3. Earners of essential foreign exchange.
4. Catalysts for economic diversification and reduced macro-economic vulnerability.
5. Critical agents for the protection, recovery and respect of ecological boundaries, and land and marine ecosystems.

In each of these areas, Cabo Verde faces significant challenges and threats that will require entrepreneurial actions to overcome. Such actions may be more likely found within the SME sector, in collaboration with dedicated and strategic government support, rather than in large firms.

Further export growth on the intensive margin will mainly have to come from higher spending and value added in the tourism industry, rather than an increase in tourism numbers. With more than 750,000 tourists visiting a year, the total pressure is bound to further exceed ecological boundaries. The islands are already in ecological overshoot, meaning that its utilization of ecological resources is exceeding the biocapacity of the country.

Similarly, most of the current merchandise exports consists of fish exports (skipjack tuna) to a small number of countries in Europe – primarily Spain, Italy and Portugal. The total physically sustainably available catch in the Cabo Verde EEZ is approximately 33,000 tonnes of fish, and current exploitation is rapidly approaching this ecological limit.

Thus, there is some scope for expanding exports on the intensive margin in tourism and fish exports, but ultimately, over the medium- to long-term, these are limited sources of export growth. Most of Cabo Verde's future export growth should be on the extensive margin, since the country is vulnerable given its dependence on just two key exports (tourism and tuna). The COVID-19 pandemic underscored the country's vulnerability in this regard when, in 2020, total service exports declined by 60 per cent (and GDP declined by 19 per cent).

In this respect, the focus of an SME-based export strategy for Cabo Verde should be on non-traditional export growth, with most promising sectors being marine services (the ocean economy), ICT-related services (the digital economy) and merchandise trade (footwear, clothing and fishing gear).

5.2 What is an entrepreneurial ecosystem?

Entrepreneurial ecosystems are sets of actors, institutions, social networks and cultural values that produce and sustain entrepreneurial activity' (Roundy et al., 2018:1). Entrepreneurial ecosystems have also been defined as, "the set of interdependent actors and factors that are governed in such a way that they enable productive entrepreneurship within a particular territory" (Leendertse et al., 2022: 1).

They can be seen as a 'second-best' type of policy, whereby governments and other agencies do not target individual firms or sectors, but foster agglomerations of enterprises and entrepreneurs, decentralizing the process through which new ventures emerge and can provide holistic, systemic support. This approach recognizes that innovation and its commercialisation comes from the interaction and collaboration amongst a range of agents (GCF, 2017).

A good entrepreneurial ecosystem strengthens all the stages in the technology-entrepreneurship chain, from opportunity recognition to invention, and eventually, successful commercialization. It sustains both new ventures (start-ups) that came up with and commercialize new technologies (these may be new to the world, or new to the specific country/market), and existing businesses. Fostering and strengthening this entrepreneurial ecosystem, for instance, through business environment reform (BER) and improved entrepreneurial finance, as well as the evolution and further development of incubators and accelerators are all steps to improve the success of export promotion.

5.3 An appropriate entrepreneurial ecosystem for a small island developing State

The Doughnut Economy framework offers an approach towards conceptualizing and elaborating a Sustainable Entrepreneurial Agenda (SEA) for Cabo Verde. This approach, proposed by Raworth (2012; 2017), defines an "ecologically safe and socially just space" for societies, where societies meet their socio-economic development needs (as reflected, for example, in the Sustainable Development Goals), but do so within planetary boundaries.

In the context of the ocean/blue economy, the Doughnut Economy approach, with its recognition of planetary boundaries, has been applied by Cook et al. (2023) and Ortega et al. (2024). An advantage of this approach is that it can help "avoid the narrative of environment versus economy, as well as the less objective-oriented sustainability narrative that considers the social, environmental, and economic perspectives in isolation. Such approaches are often found in marine political discussions. The doughnut approach can facilitate dialogue between different stakeholders, including decision makers and managers, media, researchers, and NGOs" (Ortega et al., 2024: 7).

For Cabo Verde's ocean economy, the strategic objective within the SIDS development paradigm is not the pursuit of economic growth or entrepreneurial growth, but an ecologically habitable and socially just outcome for all human and non-human life on the island. For the entrepreneurial ecosystem, this means facilitating new start-ups and scaling up of firms that address social justice and the SDGs in a manner that stays within the planetary boundaries, as they are applicable in Cabo Verde. Such an entrepreneurial ecosystem must

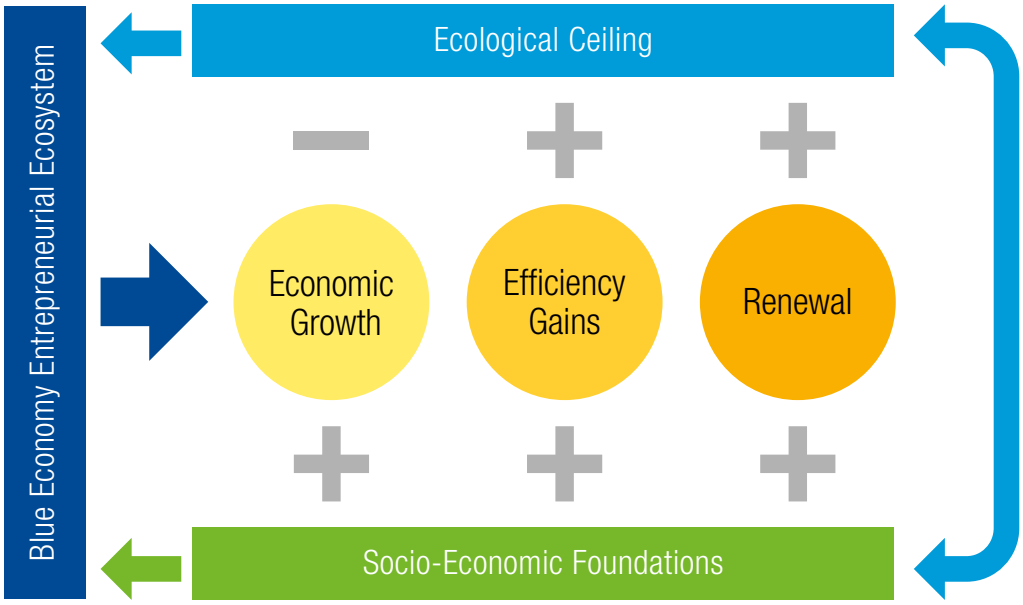
reduce social shortfalls in development and avoid ecological overshoot.

The extent to which there are social shortfalls depends on the current levels of human development, maritime (and other) natural resource use, the extent of diversification, the progress in terms of access to infrastructure and connectivity, the state of governance and freedom, and the demographic health of the population in terms of size, growth, physical health and migration dynamics. The extent of ecological overshoot depends on the islands' history (through path-dependency effects), geology and topography[40], geography, types of fauna and flora, pollution and the impacts of climate change.

Conceptually, the Doughnut Economy approach for Cabo Verde's ocean economy is depicted in diagram 2.

The term ocean (blue) economy refers to the economic activities that take place in, on, and under the ocean.

Diagram 2
Ecological boundaries and social shortfalls, Blue Economy Entrepreneurial Ecosystem for Cabo Verde



Source: UNCTAD.

Diagram 2 illustrates that excessive economic scale and consumption (the bottom panel) can lead to ecological overshoot. The extent to which this will occur will depend on the nature of the economic activities and the current context of the ecology (the top part of the panel).

To achieve a habitable ocean economy, Diagram 2 indicates that a combination of an appropriate entrepreneurial ecosystem (EES) and an effective developmental state (DS) is needed. Both the EES and the DS provide the "bookends" to reduce the impacts of society on ecological boundaries, and aims to reduce any social shortfalls. The EES requires a development state to set its mission, regulate it, and provide supportive policies and finance. A developmental state needs a EES to provide jobs, revenue, and innovative products and services that addresses both social and ecological needs. The two bookends act to ensure some form of homeostasis of the economy: if the EES overshoots ecological boundaries, the DS reigns it in, and conversely, if the DS fails to provide security and address social shortfalls, the EES stimulates it to do so.

[40] Geology explains why Cabo Verde's natural environment looks the way it does, while topography describes what Cabo Verde's natural environment looks like.

The BEE determines the nature and extent of economic growth, which results in a larger economy, improves social economic progress, but will have an adverse impact on the ecology. However, where diagram 2 differs from conventional EES approaches, it recognizes that the EES will also influence efficiency gains (e.g. through the circular economy) and contribute (or detract) from environmental renewal. The purpose of designing a BEE for Cabo Verde would be to promote efficiency gains and renewal, and minimize the impact of economic growth on the ecological boundaries.

The next section measures the BEE in Cabo Verde in terms of each of the central components relating to the ecological boundaries and social shortfalls in the country. This evaluation benchmarks Cabo Verde with other SIDS to indicate which of the pillars of the BEE — capital, market size, blue economy, governance, business environment and vulnerability/ resilience — would most assist SMEs in sustainable export expansion.

Chapter 6

The Cabo Verde Blue Economy Entrepreneurial Ecosystem

This section of the report proposes and measures Cabo Verde's Blue Economy Entrepreneurial (BEE) Ecosystem. It identifies eight components of the BEE, including financial capital, human capital, market size, ocean economy, maritime resources, business environment, governance, and resilience. The main argument is that developing a robust BEE is crucial for Cabo Verde to expand exports, especially those related to the ocean economy.

To assess the BEE, a variety of measurable indicators are used, and Cabo Verde is benchmarked against other African SIDS. It is shown that while Cabo Verde's BEE is relatively strong in some areas, such as governance and ocean economy, it faces significant challenges in terms of resilience and vulnerability to external shocks. Policies to address these weaknesses are suggested.

6.1 Purpose

For a small business in Cabo Verde to be able to utilize the opportunities for export growth and expansion identified in the previous sections of this report, they would greatly benefit from an appropriate and high-quality entrepreneurial ecosystem (EES). In this context, appropriate refers to an EES that is embedded in the ocean (blue) economy that can generate successful exporting firms without placing unsustainable pressures on fragile marine and land ecosystems. Given these considerations, the typical EES approach is not fit-for-purpose for Cabo Verde, as it does not consider the ecosystem elements of the ocean economy or the related marine resources it offers, and it does not consider the relation between the EES and environmental sustainability, being dominated by firm and economic growth imperatives.

To correct these gaps, this report proposes and measures Cabo Verde's Blue Economy Entrepreneurial (BEE) Ecosystem. It must be emphasised at the outset that the aim is not to construct a global BEE Index or to rank Cabo Verde or other countries. Rather, the aim is to consider each of the pillars of the BEE Index in Cabo Verde and ask two questions:

1. Where can the BEE be improved to increase exports?
2. What will be the likely impact of such an increase on the ecological boundaries of the islands?

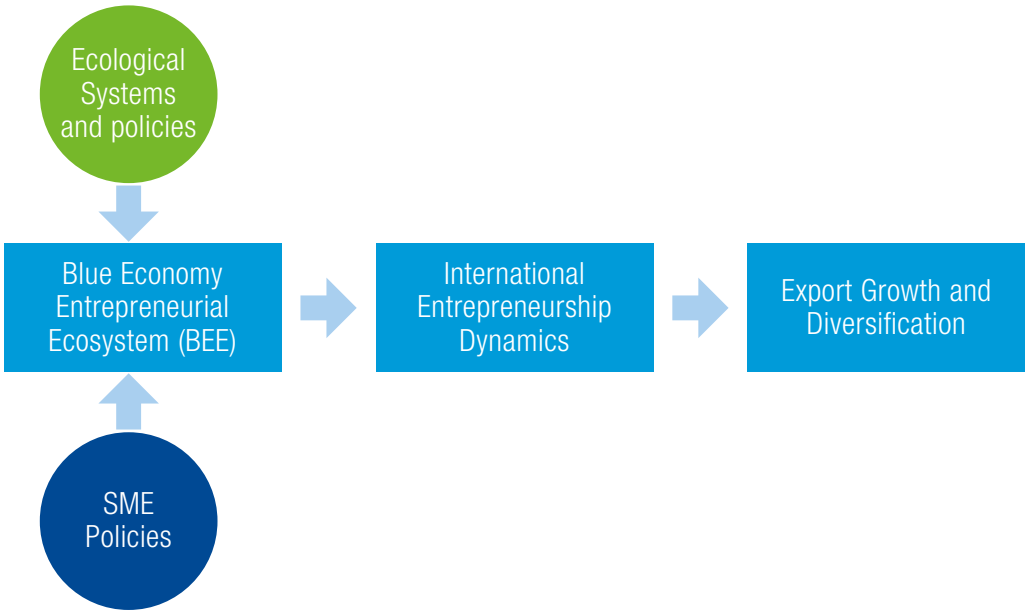
6.2 Methodology

This subsection outlines the theory of change underlying the approach to be followed. It also describes the components of the proposed BEE and explains how the Cabo Verde BEE will be evaluated in the rest of the report.

6.2.1 Theory of change

The theory of change underlying the BEE approach is shown in Diagram 3.

Diagram 3
Theory of change: From BEE to export expansion



Source: UNCTAD compilation.

Diagram 3 indicates that the BEE has an impact on the dynamics of international entrepreneurship in Cabo Verde, which can lead to export growth and diversification as eventual outcomes. It also indicates that the BEE is shaped by SME policies, as well as the ecological systems and policies towards these.

Like any entrepreneurial ecosystem, the BEE consists of a set of interconnected individuals, organizations and institutions that work together to assist, motivate and enable entrepreneurs, the majority of whom are SMEs, to achieve their objectives. These objectives can include firm growth, making it sustainable, improving exports, etc. A well-functioning entrepreneurial ecosystem creates a supportive environment where entrepreneurs can thrive and turn their ideas into successful, new SMEs, and where existing entrepreneurs or SME-owners can reach whatever firm-level objectives they aspire to.

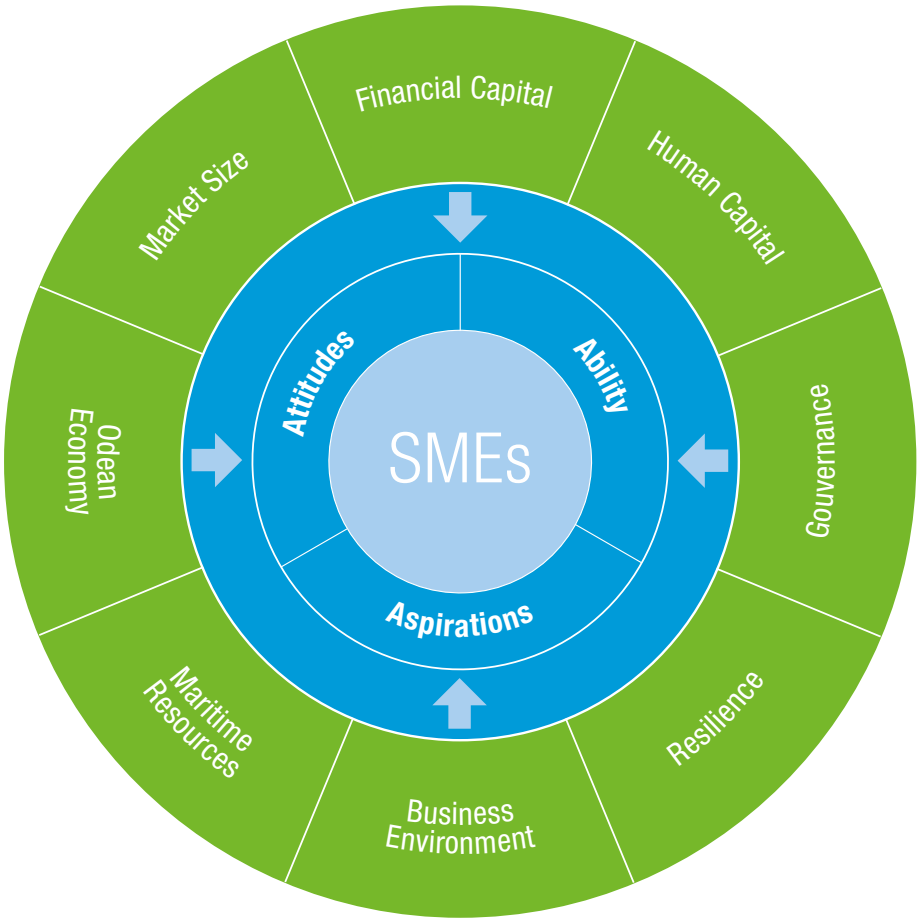
The supportive environment that an EES approach attempts to create and improve typically focuses on financial support; access to human capital; a conducive business environment, including good infrastructure; connectivity and ICT; good governance; a large enough market or access to global markets; and social networking, social capital and other sources of resilience. In other words, for Cabo Verde to develop a vibrant SME sector that pivots towards international entrepreneurship and, hence, expand exports, the SMEs and their entrepreneurs need access to finance, labour and skills, infrastructure, networks, and markets, and must also be in a stable, well-governed business environment.

6.2.2 Components of the BEE

In the case of a BEE — a model particularly relevant for the needs of SIDS, given the importance of the ocean economy — it is important to add the components or elements of typical EESs. The BEE should also account for the extent to which the ocean economy is being harnessed, as well as the quality and extent of marine resources available. As such, the BEE extends the traditional EES approach by considering explicitly the elements that constitute the so-called Blue Economy.

Diagram 4 is a representation of the components or elements of the BEE.

Diagram 4
The Blue Economy Entrepreneurial Ecosystem



Source: UNCTAD, adapted and extended from Acs et al., 2018.

Diagram 4 puts the SMEs and entrepreneurs at the centre of the BEE, who can be described (in the second ring) by their heterogeneous attitudes, aspirations and abilities.

- Attitudes include beliefs, values and perspectives that influence how individuals approach opportunities and challenges. Entrepreneurial attitudes often involve risk-taking, perseverance, creativity, and a growth mindset.
- Aspirations are the goals and ambitions that drive individuals to start and develop their own business. They may involve financial success, personal fulfillment, making a positive impact, or achieving independence.
- Abilities are the skills and competencies essential for entrepreneurial success. They may include problem-solving, decision-making, leadership, communication and adaptability.

The outer ring in Diagram 4 indicates that in the blue economy, SMEs and their attitudes, aspirations and abilities, even if ideal, critically depend on their context, which is defined by the (sometimes overlapping) elements identified in the outer rings. These are:

- **Financial capital**: Small businesses require financial capital for a variety of reasons, including startup costs, growth and expansion, international trading (export credits), and working capital and debt repayment. The best source of finance for a small business depends on various factors, such as the nature of the business, the business stage, financial needs, and risk tolerance. It is often a combination of multiple sources that

SMEs are very vulnerable due to their small size and high dependency on a few niche markets.

can provide the necessary capital for a business to succeed. Hence, the ideal BEE provides a well-developed financial system that provides a broad range of services that are accessible to SMEs. A financial system that is diversified and obtains funds from foreign investors and dedicated finance sources are better. Also, in the context of a blue economy, the extent to which a SIDS can access climate finance (green funding) is also a useful characteristic of a BEE.

- **Human capital**: Small businesses need a variety of able and healthy "human capital" to succeed, including entrepreneurs, employees, mentors, investors and partners. Therefore, a strong BEE provides deep labour markets and opportunities for education and skills formation (for example, linking with universities, incubators and accelerators), networking, and equal labour market opportunities for women. It is also an ecosystem where the government invests in education and health.
- **Market size**: A larger market means more potential customers, and a greater opportunity to sell products or services, for expansion and increased market share, and makes it easier to find and acquire new customers. And while a larger market may have more competition, it also offers more opportunities for differentiation and innovation, spurring on productivity gains.
- **Governance**: Refers to the rules, institutions and processes that shape how decisions are made and how resources are allocated within a country and its entrepreneurial ecosystems. Sound governance supports SME functioning, as it provides for greater investment certainty. The Ibrahim Index of African Governance (IIAG) measures the quality of governance in African countries, considering essential reflections of governance, such as safety, security, and the rule of law; participation and rights; economic opportunity; and the extent of human development.
- **Resilience**: Refers to a country's ability to withstand, adapt to, and recover from shocks and stresses, both natural and human induced. It encompasses a country's capacity to cope with challenges, maintain its essential functions, and continue its development path, even in the face of adversity. SMEs, in particular, are very vulnerable due to their small size, and often high dependency on a single (or few) entrepreneurs and a few niche markets. If the context in which these SMEs operate are vulnerable to external perturbations, that will raise the total risk that SMEs face. For instance, if an EES is vulnerable to natural hazards, such as droughts, the SMEs that depend on agricultural inputs and markets may face additional risks. Resilience is the inverse of vulnerability, and the ability to recover from shocks, such as the occurrence of a natural hazard, once it has happened. Since these hazards often cannot be avoided, it is essential that a BEE fosters resilience.
- **Ocean economy profile**: A unique component in the Blue Economy Entrepreneurial (BEE) Ecosystem is the extent of development of the ocean economy. In the case of SIDS, the ocean is an essential and dominant source of life and economic activity, and the extent that it is developed and harnessed provides vital opportunities for the SME sector. Generally, the term ocean economy refers to the economic activities that take place in, on, and under the ocean. It encompasses a wide range of industries and sectors, including fishing and aquaculture, maritime transport, exploration, extraction, and production of oil, gas, and renewable energy sources, such as wind and wave power; marine biotechnology; tourism and recreation; and the extraction of minerals from the seabed, such as manganese nodules and cobalt crusts. In all of these activities, SMEs are involved to a lesser or greater extent.
- **Maritime resources**: Another unique component in the Blue Economy Entrepreneurial (BEE) Ecosystem is the availability and quality of maritime resources. Maritime resources refer to the

natural resources found in the ocean and its coastal areas. These resources consist of living resources, mineral resources and energy resources. The ocean economy is built on these resources, and in the process, these resources may be depleted or overexploited. Hence, it is important to consider, together with the development of the ocean economy in SIDS, the situation characterising their available maritime resources. SMEs' sustainability depend on this, and moreover, SMEs can contribute to the protection and enrichment of SIDS' maritime resources.

- **The business environment**: Refers to the economic, legal, political, social, technological, and cultural factors that influence SMEs and other firms' operations. It encompasses the conditions under which businesses operate, including access to financial capital, human capital and market size, governance and socio-political factors determining resilience, as discussed previously. However, there are also very specific inputs that businesses need: infrastructure, electricity, water, and ICT.

Together, these eight components of the Blue Economy Entrepreneurial Ecosystem (BEE) will determine how internationally entrepreneurial the country's SME sector is. International entrepreneurship is the process of identifying opportunities for cross-border business. It involves businesses — SMEs and larger firms — that seek to capitalize on opportunities beyond their domestic borders.

In previous sections of this report, various potential opportunities for Cabo Verde's SME sector were identified. For the SMEs to capitalise on these opportunities, it requires a fit-for-purpose BEE. In the case of international trade, the risks and stakes are much higher and different than in businesses within the borders of the country. SMEs wanting to export for the first time or expand exports face unique challenges, such as cultural differences, language barriers, and regulatory complexities. The BEE plays an important supporting role, particularly with the components finance, business environment, and governance to provide SMEs with the necessary resources to overcome cultural differences and regulatory complexities. The components relating to the ocean economy and maritime economy are vital for SMEs to understand the extent of their comparative and competitive advantages, and how to best integrate into global value chains.

6.3 Measuring and benchmarking the BEE

To assess and evaluate the Cabo Verde BEE, it is useful to identify suitable, measurable indicators for each of the components. These indicators should reflect the underlying component as an input to the entrepreneurial process adequately, be readily available over time, and be available for a large number of countries, so as to facilitate comparison. Where ideal indicators are not available, say due to lack of data, it is necessary to use the best proxies that are available. The measurement of an EES is not an exact science; it is as much an art in the selection and interpretation of available data.

The various indicators for each of the components, and their sources and current values in Cabo Verde are set out below in table 11.

Once these indicators have been identified, their interpretation can a threefold approach is required:

1. Understanding how the literature on this component in Cabo Verde have already addressed and assessed it. Various assessments, both directly and indirectly, that have been made relating to components of the Cabo Verde BEE needs to be scrutinised. These include government documents, reports by agencies of the United Nations, the World Bank, the IMF and the FAO, among others. This analysis is

necessary because not all aspects of the BEE can be quantified.

2. Compare the indicators of Cabo Verde with that of other similar economies. In the present case, Cabo Verde's BEE will be benchmarked against the other African SIDS. This will include constructing a BEE Index for the African SIDS. The purpose is not to identify which African SIDS have the best BEE, but rather to make a prognosis of why Cabo Verde differs from other SIDS, and what can be learned from this to improve the BEE.
3. The indicators of the BEE can be correlated with the performance of Cabo Verde in terms of a) the ecological boundaries (environmental ceiling); and b) progress in terms of the SDGs (social floor). An appropriate BEE should be positively correlated with better environmental performance and performance, in terms of the SDGs.

The evaluation of the Cabo Verde BEE following this threefold approach is in the next section.

6.4 Evaluation of the Cabo Verde BEE

This subsection evaluates the Cabo Verde BEE using the threefold approach explained previously. First, the various components of the BEE are measured using a parsimonious indicator selection approach, and constructing a simple BEE Index for African SIDS. Next, the relationship between the BEE and ecological and social outcomes is analysed.

The BEE consists of eight components, as shown in Diagram 4: Financial capital, human development, market size, ocean economy, maritime resources, business environment, governance and resilience. In the remainder of this subsection, each of these components will be measured using several indicators. After which, the indicators will be used to compile a BEE Index for African SIDS.

For the purpose of this report, the African SIDS consist of all the members of the African Islands States Commission,[41] namely Cabo Verde, Comoros, Equatorial Guinea, Guinea-Bissau, Madagascar, Mauritius, Sao Tome and Principe and Seychelles. Zanzibar (Tanzania) is also a member of this Commission; however, not enough separate data is available to include it in the quantitative analysis. Furthermore, it should be noted that Madagascar is not a small island, but a rather large island. It is included in the analysis as an African SIDS, as many of the challenges it faces are similar to that of the smaller islands. These shared challenges are the motivation behind the creation of an African Island States Commission.

In the following sections, each component of the BEE will be presented in a table detailing the indicators and their data sources, followed by analysis of these indicators for Cabo Verde and the other islands states.

Table 11 shows the measurement of the BEE component of financial capital.

[41] See https://www.uneca.org/eca-events/sites/default/files/resources/documents/ACPC/cop/cop28/Presentations/aiscc_ministerial_meeting.pdf.

Table 11
Financial capital component, indicators and data sources

BEE Component	Indicators	Data Sources
Financial Capital	Financial Development Index score 2021	IMF's Financial Development Index (FinIndex)
	FDI, net inflows (percentage of GDP), av 2018—2022	World Bank's Development Indicators Online
	Green Development Finance per km^2 Thousands of US dollars, 2013—2021, constant 2021 values	OECD's Creditor Reporting System (CRS)
	Net ODA received (percentage of GNI) average 2018—2022	World Bank's Development Indicators Online

Source: UNCTAD.

Table 11 presents the indicators used to measure the financial capital component of the BEE index. It draws on four data sources: the IMF's Financial Development Index, the OECD's Creditor Report System data on climate finance flows to developing countries, as well as FDI and ODA inflows. As such, the indicators measure the BEE's financial strength according to both private financial institutions, as well as foreign flows, aid flows and green financial flows.

The IMF's Financial Development Index (FinIndex) is a composite index that measures the development of financial systems in individual countries. It assesses various aspects of financial development, including:

- Depth: the size of the financial sector relative to the economy;
- Access: the availability of financial services to the population; and
- Efficiency: the capacity of financial institutions to intermediate funds and allocate capital.

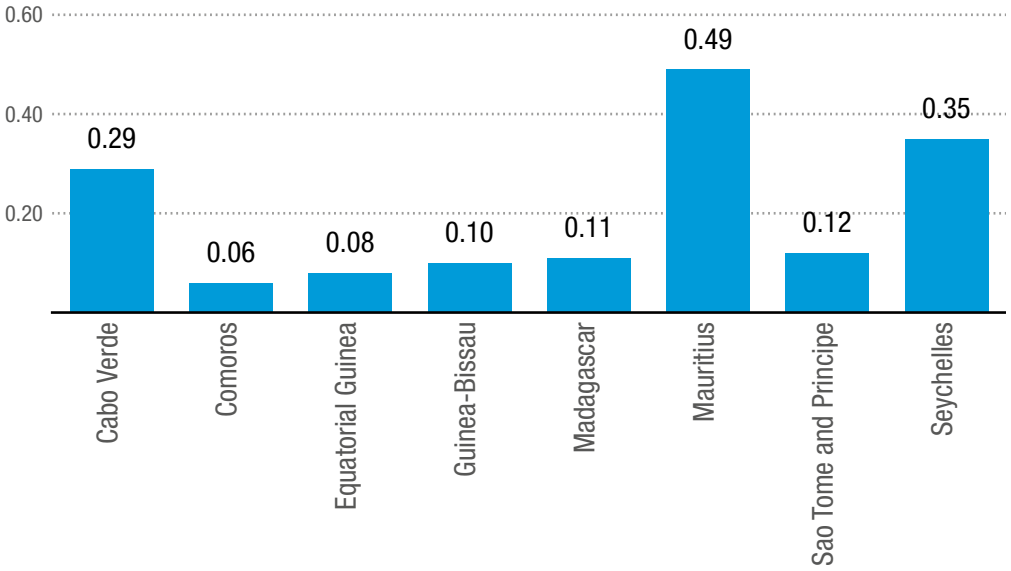
The FinIndex, ranging between 0 and 1, is calculated by the IMF using a range of indicators, such as the ratio of domestic credit to GDP, the number of bank branches per capita, and the interest rate spread. A higher score indicates a more developed financial system.

According to the IMF's Financial Development Index, Cabo Verde's score in 2021 was a modest 0.29[42], reflecting improvement from 0.16 in 1980s. The country's scores are 0.72 for depth, 0.19 for access and 0.67 efficiency. This indicates that Cabo Verde scores best on depth of its financial system (which is relatively important in GDP), moderately on efficiency and weakest in terms of access. The latter, however, is important for SME development, as they most often complain about lack of access to finance as a constraining factor.

In the context of other African SIDS, figure 31 allows a comparison.

[42] In comparison, the Financial Development Index score of South Africa, the most advanced financial sector in Africa, is 0.84.

Figure 31
Financial Development Index, African Island States, 2021

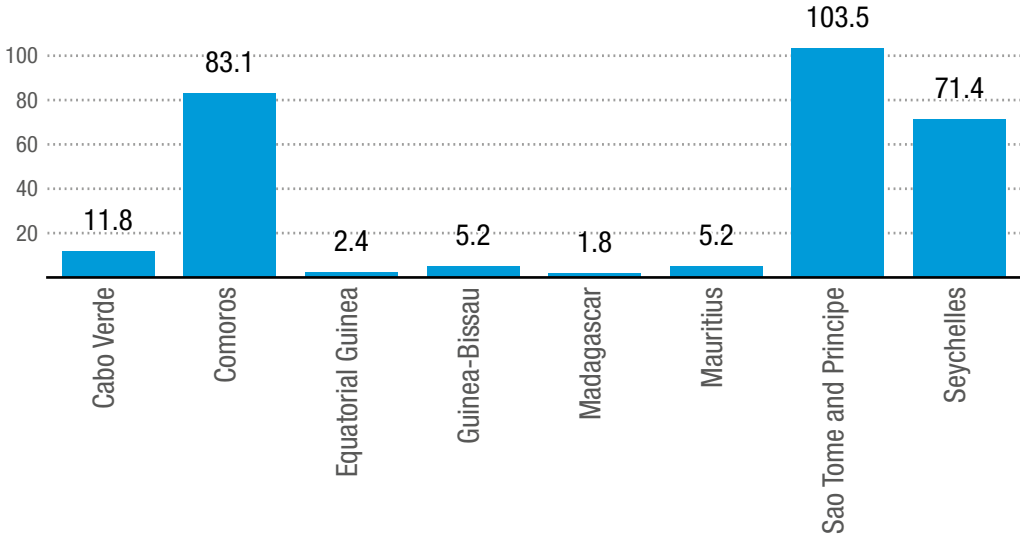


Source: UNCTAD, compilation based on IMF data, see https://www.imf.org/external/pubs/ft/wp/2016/wp1605.pdf.

Figure 31 shows that, after Mauritius and Seychelles, Cabo Verde has the most developed financial sector amongst African SIDS. However, it also highlights that it is more than just depth, access and efficiency of the domestic financial sector that matters. Foreign capital — through FDI inflows — are also important, particularly, those often associated with greater know-how, technological transfers, linkages with GVCs and increased domestic competition and productivity.

Furthermore, in an ecological fragile context where climate change impacts are significant, flows of climate finance from donor countries can be of valuable assistance to provide for investments in green technologies and sustainable business practices. Therefore, consideration of climate finance commitments, as recorded by the OECD's Creditor Reporting System, needs to be considered. Figure 32 shows the green finance commitments to the African Islands States since 2013 (following the Rio+20 commitment) per km^2 land area — this reflects countries with a large land area will face more significant challenges in adapting to and mitigating climate change.

Figure 32
Green development finance per km^2 of land area, 2013–2021
(Thousands of US dollars, constant values)



Source: UNCTAD, compilation based on OECD data.

Figure 32 illustrates that, between 2013 and 2021, Cabo Verde received green finance commitments worth almost US $12,000 per km2 of land – a total of US $48 million. This is the fourth most in effective terms. It suggests that there is potential for Cabo Verde to obtain additional green climate funding from DAC countries. This is consistent with UNDP's assessment[43] that Cabo Verde is on-track to achieve target 17.9 of the SDGs – enhance international support for implementing effective and targeted capacity-building in developing countries to support national plans to implement all the Sustainable Development Goals, including through North-South, South-South and triangular cooperation.

As developing countries, all the African island States receive ODA. However, there is a negative association between the extent of financial development and ODA – the more a country's entrepreneurial ecosystem can leverage finance and credit, the lower its need for ODA. Hence, in the calculation of a BEE index, the inverse value of ODA share of GDP will be used as an indicator.

Table 12 shows the measurement of the BEE component of human capital.

Table 12
Human capital component, indicators and data sources

BEE Component	Indicators	Data Sources
Human Development	Human Development Index Score, 2022	UN Human Development Index, 2022
	Gini-coefficient (average) over past decade	UN Sustainable Development Report 2024
	Youth and children not in school, latest year, share of population	UN Sustainable Development Report 2024
	Government spending on health and education (percentage of GDP, 2021)	World Bank's Development Indicators Online

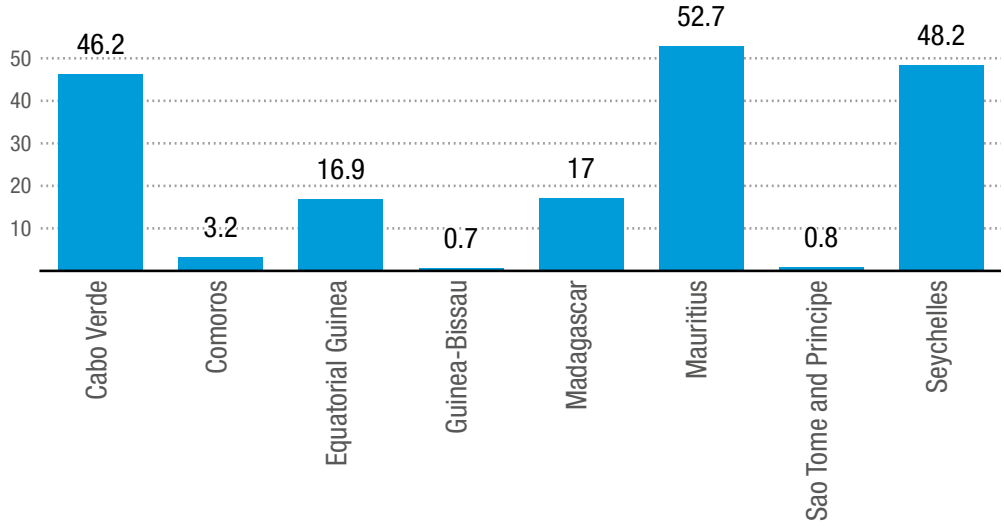
Source: UNCTAD.

[43] See https://sdgdiagnostics.data.undp.org/CPV/sdg-trends.

The human capital component of the BEE Index is measured using the Human Development Index (HDI), the Gini-coefficient, the share of youth and children not in school, and government spending on health and education. The HDI is an overall index of human development that includes income per capita, life expectancy and literacy. As such, it captures important dimensions of the quality of human capital in a country. However, one needs to add the degree of income inequality in a country, as this largely determines access to education and health development. Inequality, in terms of income, is measured with the Gini-coefficient. Another more indirect measure of inequality is to consider the share of youth and children not attending school, which reflects access to education. As such, the inequality measures – both the Gini-coefficient and youths and children not in school – will enter an inverse manner in the calculation of the BEE Index and will it detract from the strength of the ecosystem. Countering the effects of inequality on education and health is government expenditure on these vital aspects for human capital.

From the indicators listed in table 12, a Human capital Score can be calculated for countries by first, normalising the data – inverting the indicators so that the directionality of all indicator values are similar (i.e. a higher value indicates a better outcome) – and taking the geometric mean of the indicators to obtain a single score. The Human capital Score for the African island States are shown in figure 33.

Figure 33
Human Development Scores for African Island States



Source: UNCTAD, compilation based on data from various sources (see Table 12)

Figure 33 shows that based on the most recent data, Cabo Verde has a Human capital score of 46.2, the third highest amongst African Island States, following Mauritius and Seychelles. The country had an HDI of 0.66 in 2022 (also the third highest), a Gini-coefficient of 47.4 (the third highest), and approximately 4 per cent of its population are youth and children out of school (the 4th highest in the sample). Over the past five years, the government of Cabo Verde has spent on average, about 11 per cent of GDP on education and health, the highest of any African Island State. Additionally, in 2024, Cabo Verde had the highest share of women in parliament, with women holding almost 39 per cent of all seats.

This suggests that Cabo Verde has made good progress in human development. However, the challenges remain in terms

of inequality — income inequality and inequality in terms of access to schooling and employment. For instance, women's labour market participation is only 78 per cent that of men, and the ratio of female-to-male mean years of education received by women is just 91 per cent of men, indicating room for improvement.

Furthermore, the exact state of human capital is not very easy to gauge, as data on educational quality and performance is not reported. The total population in Cabo Verde is fairly small, which, in the presence of inequality and the population's lack of access to health, education and finance (see the above), could imply that SMEs, new firms and foreign investors may find it difficult to obtain sufficient highly qualified labour.

Table 13 shows the measurement of the BEE component of market size.

Table 13
Market size component, indicators and data sources

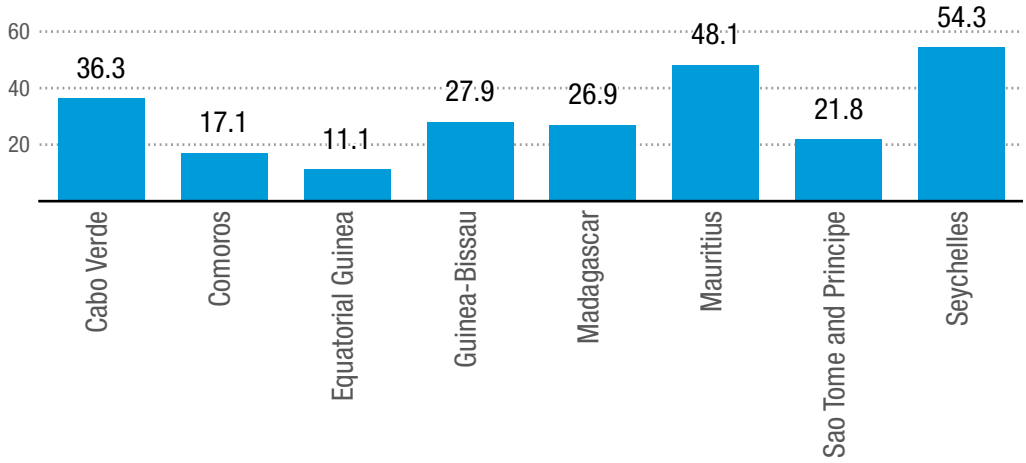
BEE Component	Indicators	Data Sources
Market Size	Lack of trade barriers -Tariff rate, applied, simple mean, all products (%) most recent	World Bank's Development Indicators Online
	Trade (percentage of GDP), average 2018—2022	World Bank's Development Indicators Online
	GDP (current US dollars), average 2019—2023	World Bank's Development Indicators Online
	Expected GDP growth, 2025—2029	IMF World Economic Outlook, April 2020
	Lack of poverty -Poverty headcount ratio at $2.15/day (2017 PPP, %, 2024)	United Nations (2024), The Sustainable Development Goals Report 2024

Source: UNCTAD.

Table 13 shows the components used to measure market size: GDP (the size of the economy); the openness of the economy to foreign markets (the share of trade in GDP); expected future growth (how much potential there is in the market); and lack of poverty (how much effective demand can the economy provide). Finally, the openness in terms of trade should be mediated by the extent to which there may be trade barriers, which effectively shrinks the size of the market. This measure — using the average tariff rates in place — will enter in an inverse manner in the index.

The Market Size Score for the African Island states are shown in Figure 34.

Figure 34
Market Size Scores, African Island States



Source: UNCTAD, compilation based on data from various sources (see Table 13)

Figure 34 shows that in terms of market size scores, Cabo Verde has the third highest score (36.3), after the Seychelles and Mauritius. This score is determined by the relatively small absolute size of the economy (US $1.26 billion), which is around 10 times smaller than that of Mauritius. While the poverty rate in relation to a poverty line of US $2.15-a-day is very low in Cabo Verde at 1.94 per cent, its poverty at more stringent poverty lines is still fairly high, suggesting a break on the extent of aggregate consumer demand in the market.

Over the past five years, Cabo Verde's average share of trade in GDP was 93 per cent, compared to 99 per cent for Mauritius and 180 per cent for Seychelles. It suggests that there is indeed further possibilities for export expansion, and that policies aimed at expanding trade is advised.

One policy in this regard is the relative high tariff barriers that importers in Cabo Verde face — the average tariff rate is 13.6 per cent, which is the second highest (after Equatorial Guinea's 18 per cent) amongst the peer group. While it is recommended that the government considers further tariff reform, so as to facilitate greater global value chain participation by Cabo Verde firms by being able to access cheaper imports, it is likely that government revenue depends on import taxes, and that given high demands on government services and high government debt, the government may not want to reduce or abolish import tariffs.

Table 14 shows the measurement of the BEE component of business environment.

Table 14
Business Environment Component, indicators and data sources

BEE Component	Indicators	Data Sources
Business Environment	Access to electricity (% of population) average 2018—2022	World Bank's Development Indicators Online
	Energy use (kg. of oil equivalent per capita), average 2004—2014	World Bank's Development Indicators Online
	Ease of doing business score (0=lowest performance to 100=best performance) 2019	World Bank's Development Indicators Online
	Remoteness Index, Overall, 2021	UNCTAD's Remoteness Index
	Africa Infrastructure Development Index (AIDI) Index 2022	African Development Bank
	Internet penetration rate (%), 2024	We Are Social & Meltwater (2024) Digital 2024 Global Overview Report
	Social Media Users, 2024, % of population	We Are Social & Meltwater (2024) Digital 2024 Global Overview Report
	Drinking water quality score, EPI 2023	Environmental Performance Index (EPI) Yale University
	Artisanal Fishing Opportunity Score, 2023	Ocean Health Index data

Source: UNCTAD.

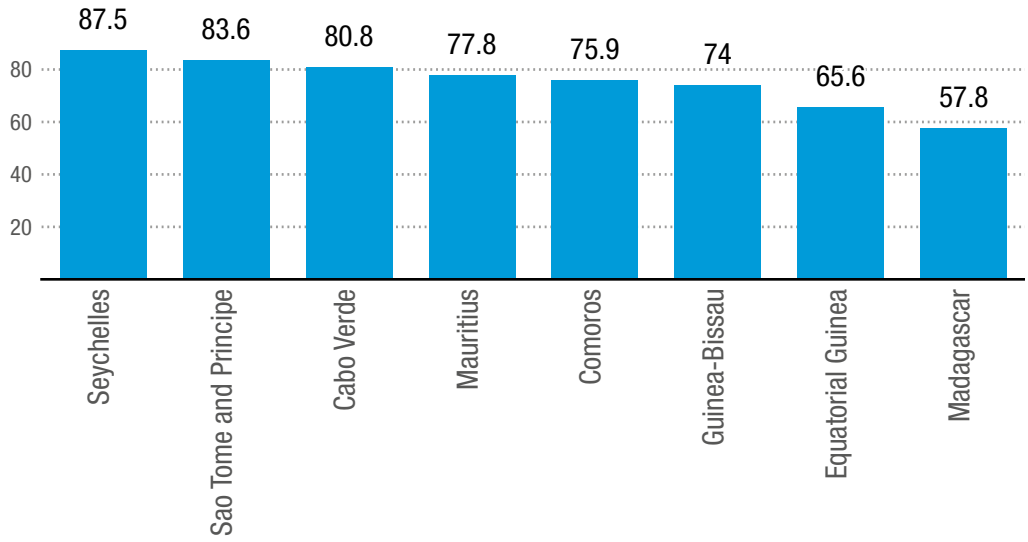
Table 14 indicates that the measurement of the Business Environment Score for the African island States requires a wide range of indicators. The reasons are that a useful single measure — such as the Financial Development Index for financial capital score and the HDI for the human capital score — is lacking. As a result, the business environment needs to be measured from various angles to obtain an accurate reflection of its strength.

The most important reflections are in terms of energy, water, infrastructure, distance from markets and ICT. The World Bank's Ease of Doing Business Score (though discontinued and only available up to 2019) can also be used, as it reflects much about the regulatory

environment in a country. Other dimensions of the business environment, such as financial and human capital and market size, have already been addressed.

A unique indicator to the BEE Index is the Artisanal Fishing Opportunity Score, given its Blue Economy focus. It assesses the extent to which artisanal fishing communities can sustainably harvest marine resources without compromising the health of the ocean ecosystem. A high score indicates that artisanal fishing communities can sustainably harvest marine resources, contributing to both healthy ocean ecosystems and thriving local economies. Conversely, a low score suggests that artisanal fishing is unsustainable and may be harming the ocean or negatively impacting local communities. According to the Ocean Health Index[44], Cabo Verde's score in 2023 was 80.77. Comparative scores for other African Island States are shown in figure 35.

Figure 35
Artisanal Fishing Opportunities in African Island States, 2023



Source: UNCTAD, based on data from the Ocean Health Index.

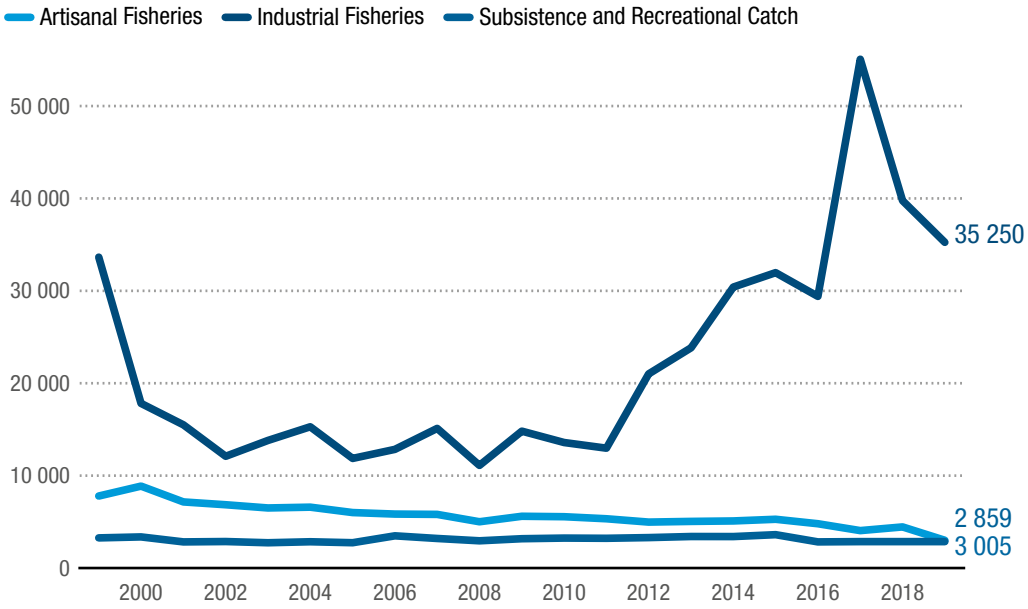
As shown in figure 35, the Artisanal Fishing Opportunity scores are highest in Seychelles and Saõ Tomé and Principe, followed by Cabo Verde in third place. Cabo Verde's rather strong score is consistent with the earlier conclusion that there is still scope for expansion of fisheries and fish exports. Also, artisanal fishing in Cabo Verde is still sustainable, according to the Ocean Health Index.

However, a key challenge in expanding the opportunities and ability of artisanal fisheries in Cabo Verde is the structure of the fishing industry, which is dominated by industrial fishing, many operated by foreign fleets. Figure 36 shows the tonnage of fish caught in Cabo Verde's EEZ by artisanal fisheries industrial fisheries, as well as by subsistence and recreational fisheries.

A high score in Artisanal Fishing Opportunity indicates scope for expansion of fish exports.

[44] See https://oceanhealthindex.org.

Figure 36
Total marine fisheries catch in Cabo Verde's EEZ between 1999 and 2019
(Tonnes)



Source: UNCTAD, based on data from SeaAroundUs, extracted from the Food and Agriculture Organization of the United Nations (FAO) FishStat database.

The challenges faced by the artisanal fishing fleet in Cabo Verde include (FAO, 2021):

- Low productivity due to limited fishing grounds: Cabo Verde's small continental shelf, a mere 5,394 km^{2,} compared to its vast 734,265 km^2 Economic Exclusive Zone (EEZ), restricts fishing grounds for the artisanal fleet. This limited area, primarily concentrated around the eastern islands, leads to the over-exploitation of resources, and consequently, reduced catches for artisanal fishermen.
- Inadequate vessels and equipment: The artisanal fishing fleet comprises of mainly small, wooden boats (averaging 3—5 meters), often lacking essential equipment, such as onboard ice. This lack of proper storage facilities compromises the quality and freshness of the catch, hindering its marketability, particularly to higher-paying segments, like the hospitality industry.
- Informal and inefficient supply chain: The absence of organized systems for selling and distributing catches poses a significant hurdle for artisanal fishermen. The prevalent practice of selling through informal fishmongers in local markets results in:
  - Poor handling and storage: Lack of proper handling and storage facilities at landing sites and during transportation further diminishes the quality of the catch.
  - Limited market access: Reliance on informal channels restricts artisanal fishermen from accessing potentially lucrative markets, such as hotels and restaurants, which demand consistent quality and reliable supply.
  - Price fluctuations: Absence of structured trading mechanisms exposes fishermen to fluctuating prices and exploitation by intermediaries, impacting their income stability.
- Limited vertical integration and value addition: The current setup lacks initiatives for processing, packaging, or value-adding activities within the artisanal fishing sector. In other words, there are limited opportunities to add value to the artisanal catch, which is increasingly used for subsistence purposes. These limit earning

potential and confines fishermen to selling primarily low-value, unprocessed catches.

- Lack of inspection and enforcement: While regulations exist for product handling and safety within the fisheries sector, inadequate enforcement and inspection allow for non-compliant practices to thrive. This creates an uneven playing field, disadvantaging those who adhere to standards, and perpetuating the cycle of low quality and limited market access for compliant fishermen.
- Dominance of industrial fisheries: The industrial and semi-industrial fishing industry, primarily focused on supplying the export-oriented canning industry, exerts considerable influence over the sector. This dominance creates challenges for artisanal fishermen in terms of:
  - Access to resources: Industrial fleets, with their larger vessels and greater capacity, often outcompete artisanal fishermen for prime fishing grounds and resources.
  - Pricing power: The concentrated purchasing power of large companies like Frescomar dictates prices, leaving artisanal fishermen with limited bargaining power.
- Climate change vulnerability: As an archipelago, Cabo Verde is highly susceptible to climate change impacts, their fisheries are threatened by rising sea temperatures, ocean acidification and extreme weather events. These factors disrupt fish populations and create uncertainty for the artisanal fishing fleet, further impacting their livelihoods.

These challenges highlight the need for comprehensive interventions in Cabo Verde's artisanal fishing sector and BEE. Addressing these issues will require a multi-faceted approach that includes improving infrastructure, promoting sustainable fishing practices, fostering greater organization and cooperation among fishermen, and enhancing their access to markets and financing.

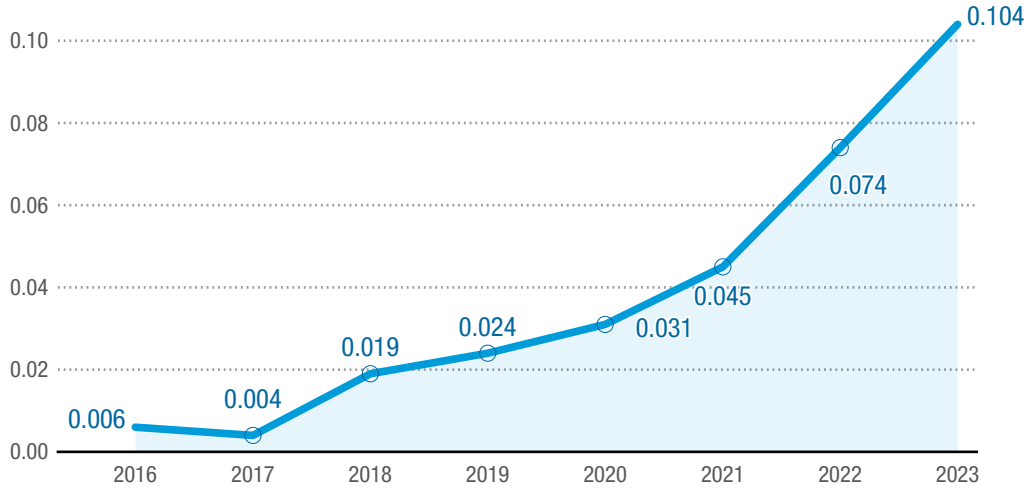
An emerging critical dimension of the business environment and the development of entrepreneurship, in addition to the artisanal fishing sector, is the development of digital entrepreneurship.

The incorporation of several indicators in the BEE Index is to reflect the state of the digital economy to allow evaluation of the progress that has been made in new technology adoption in Cabo Verde and to gauge the digital entrepreneurial ecosystem that is required to underpin the government's ambitions for developing the digital economy of Cabo Verde further. Also, and importantly, access to digital technology and infrastructure is becoming more and more important for integration in global value chains and for finding and capitalising on export opportunities.

The digital economy profile of Cabo Verde can be summarised as follows. As of 2024, the internet penetration rate was 77.9 per cent, the second highest after Seychelles and Mauritius amongst the peer group. This translates into roughly 434,000 internet users in the country. Internet usages are estimated to grow by about 15 per cent annually. In addition to more internet users, the quality (e.g. broadband use) of internet connections and the intensive use thereof has also increased. Figure 37 shows the sharp increase in fixed-broadband internet traffic (in exabytes) in Cabo Verde since 2016. Only Mauritius and Madagascar have a higher amount of broadband internet traffic than Cabo Verde, amongst the peer group.

There is need for promoting sustainable fishing practices, fostering greater cooperation and enhancing access to markets and financing.

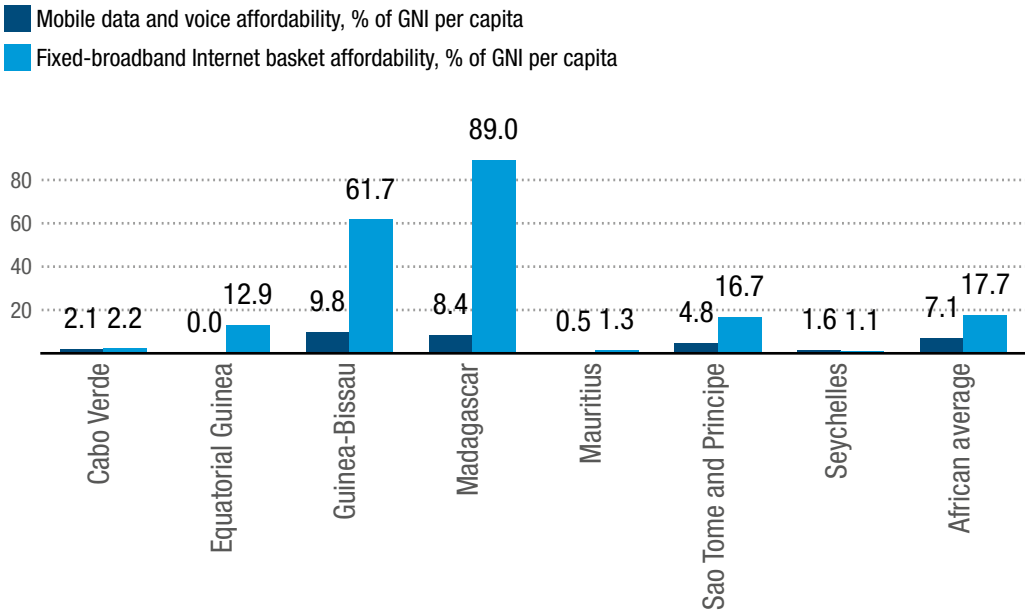
Figure 37
Cabo Verde: Fixed-Broadband Internet Traffic in Exabytes, 2016–2023



Source: UNCTAD, compilation based on data from the *Digital 2024 Global Overview Report*.

Further expansion of internet use and broader digitalization in Cabo Verde is supported by the relatively low cost of ICT. Figure 38 shows the ICT affordability in Cabo Verde in 2023, expressed as a percentage of GNI per capita.

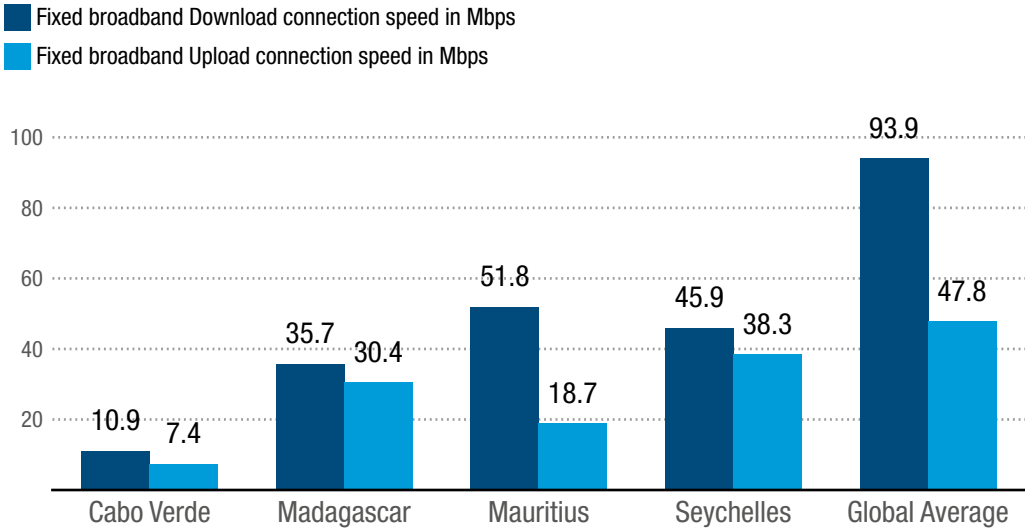
Figure 38
Information and communications technology affordability in Cabo Verde and African Island States, 2023
(Percentage of gross national income per capita)



Source: UNCTAD, compilation based on data from the *Digital 2024 Global Overview Report*.

While the increasing use and growing affordability of the internet strengthens the BEE, a lingering constraint that remains and needs to be addressed by policy is the relatively slow connection speeds. Figure 39 shows the internet connection speeds in Cabo Verde and selected African SIDS in 2024 and compares them to global averages.

Figure 39
Internet connection speeds in Cabo Verde and selected African Island States, compared to the global average, 2024

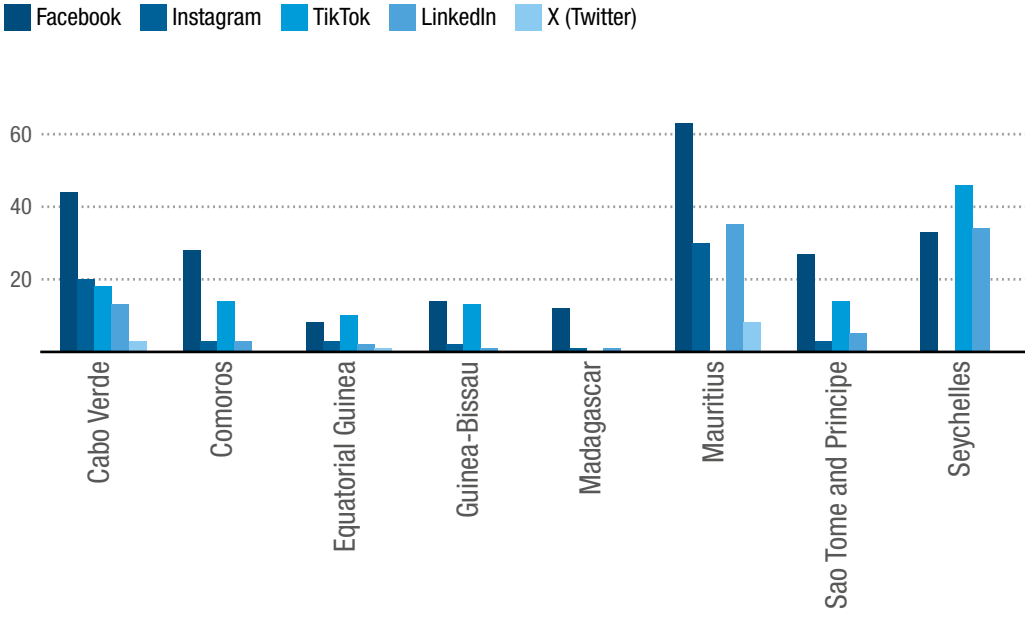


Source: UNCTAD, compilation based on data from the *Digital 2024 Global Overview Report*.

As shown in figure 39, average global internet connection speeds are 5–10 times faster than those in Cabo Verde.

One dimension of the digital economy that has become most pronounced globally in recent years is the rise of social media, which has opened new channels for marketing, sales and connectivity. In Cabo Verde, around 44 per cent of the population uses social media. Figure 40 shows the share of the population using social media, as well as the types of platforms most commonly used in Cabo Verde and the African Island States.

Figure 40
Percentage of the population using social media in Cabo Verde and other African Island States in 2024



Source: UNCTAD, compilation based on data from the *Digital 2024 Global Overview Report*.

As shown in figure 40, Mauritius and Seychelles have the largest proportions of their populations using social media, followed by Cabo Verde in the third place. The most popular social media platform is Facebook (except in Seychelles, where it is TikTok). Notably, LinkedIn, a social media site for professional networking and human resources, is the second most-used social media site in both Mauritius and Seychelles.

As Cabo Verde's SME sector moves into the digital economy, one would expect greater shares of people using Facebook (e.g. as a marketing channel that can be important in the tourism industry) and LinkedIn (for networking and labour market matching).

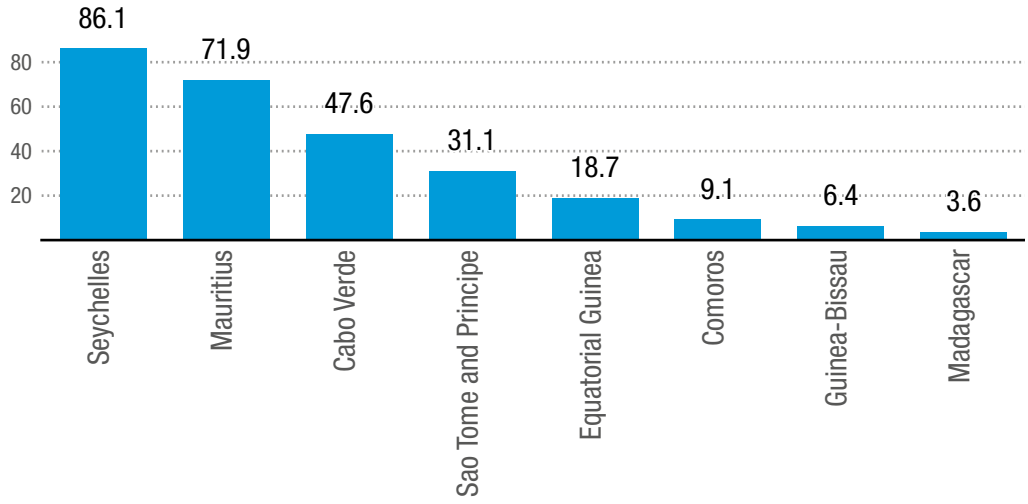
In terms of doing business in Cabo Verde, the 2016 Global Competitiveness Report identified two of the most problematic factors for firms and investors: access to financing, and taxation and bureaucracy.

For instance, the *2016 Global Competitiveness Report* ranked Cabo Verde 129th out of 190 economies in terms of financial market development. The Report repeatedly identifies access to financing, particularly for SMEs, as a major constraint for businesses in Cabo Verde. Businesses face challenges related to the limited availability of credit, high interest rates, and the lack of financial products tailored to their specific needs. The financial market in Cabo Verde is characterized by a limited range of financial products and services, with a heavy reliance on "classic" banking products that often fail to meet the diverse needs of businesses, especially SMEs. Even when credit is available, the high cost of borrowing can be prohibitive for many businesses, particularly in sectors like agriculture and tourism.

The Global Competitiveness Report also highlighted concerns related to taxation and bureaucracy as major impediments to doing business in Cabo Verde. While Cabo Verde ranks relatively well in areas like starting a business and enforcing contracts, the persistence of bureaucratic hurdles and administrative complexities hinder business operations. This is particularly evident in sectors such as agriculture, where farmers face challenges related to land access, obtaining permits, and navigating complex regulations.

Following this discussion on the business environment in Cabo Verde from a BEE perspective, figure 41 presents the total business environment score for the African Island States. It shows that their business environment score is 47.55, placing it in third place, after Seychelles and Mauritius.

Figure 41
Business environment scores, African Island States



Source: UNCTAD, compilation based on data from various sources (see Table 14).

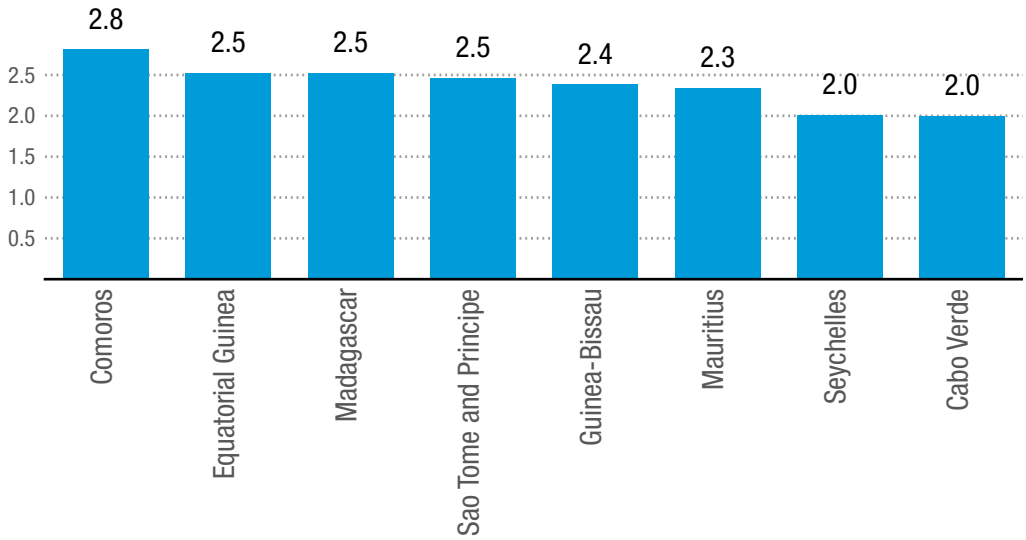
Table 15
Governance component, indicators and data sources

BEE Component	Indicators	Data Sources
Governance	IIAG Overall Governance Score 2021	Ibrahim Index of African Governance (IIAG)
	Civil society participation index, 2021	Food Systems Dashboard
	IUU Fishing Risk Governance	IUU Fishing Risk Index 2024

Source: UNCTAD.

Table 15 shows that only a few indicators are needed here. This is because the Ibrahim Index of African Governance (IIAG) score captures a rather broad number of governance indicators. To complement this, the Civil Society Participation Index is included to capture the extent of non-governmental "good" governance. Another indicator is the IUU Fishing Risk Index's Governance score[45], which is measures the governance towards the ocean economy and maritime resources. This fishing governance score measures how effectively a country is combatting Illegal, Unreported and Unregulated (IUU) fishing. The scores range between 1 to 5, with a higher score denoting a higher risk. Figure 42 shows the IUU Fishing Risk Governance score for Cabo Verde and the other African Island States.

Figure 42
IUU Fishing Risk Governance Score, African Island States, 2024

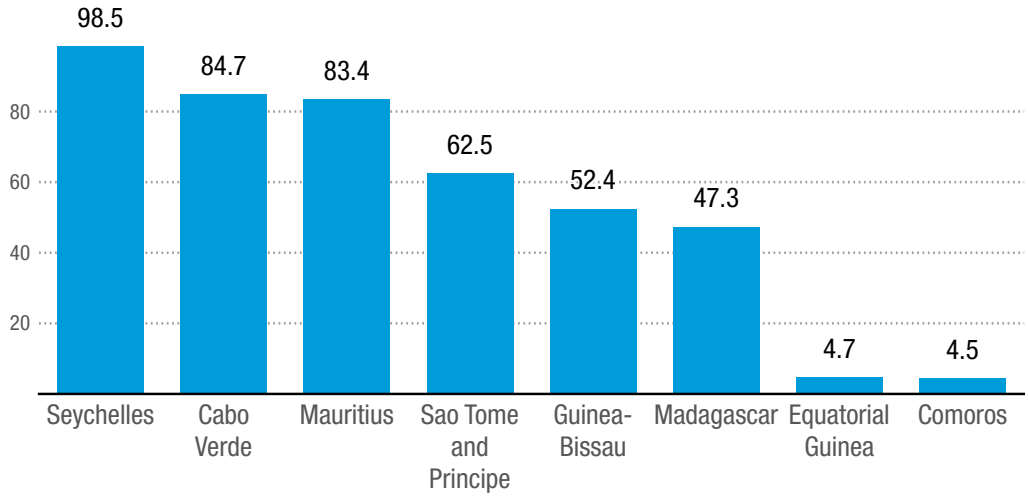


Source: UNCTAD, compilation based on data from the IUU Fishing Risk Index 2024.

Cabo Verde has the strongest fishing governance score among the African Island States. Because the country also does well in terms of the other two governance indicators, its final governance score for the BEE Index is 84.7. These scores are shown in Figure 43.

[45] See https://www.iuufishingindex.net.

Figure 43
Governance scores, African Island States



Source: UNCTAD, compilation based on data from Ibrahim Index of African Governance (IIAG), Food Systems Dashboard and IUU Fishing Risk Index 2024.

As shown in figure 43, Cabo Verde has the second highest governance score amongst African Island States, after the Seychelles. The most notable area for improvement is in civil society participation, where it scores 0.60, which is amongst the lowest in the peer group.

Table 16 outlines the measurement of the BEE component of the ocean economy. These indicators reflect the three key activities in an ocean economy, namely marine resource use (fishing and its exports), ports and ships (reflected in container port throughput) and tourists.

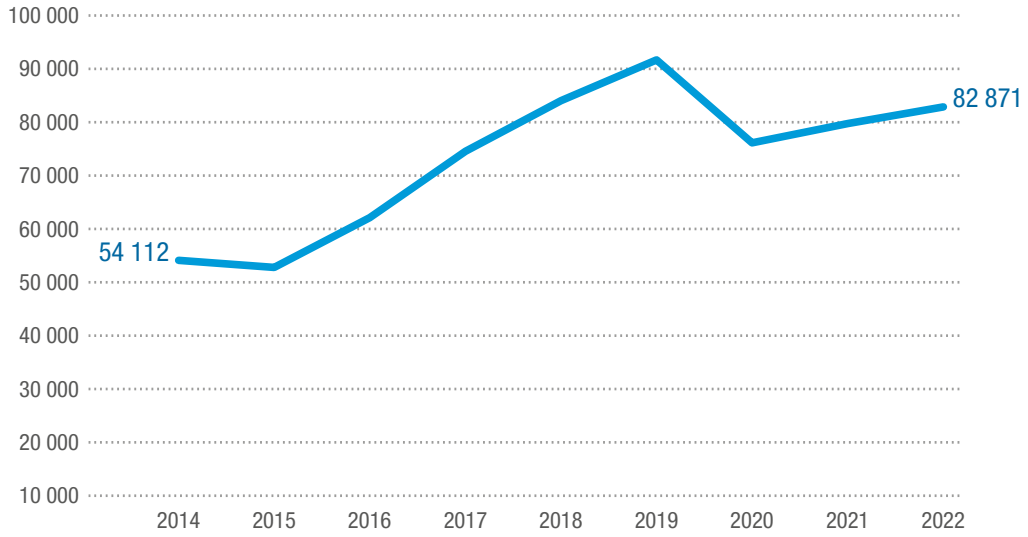
Table 16
Ocean economy component, indicators and data sources

BEE Component	Indicators	Data Sources
Ocean Economy	Container port throughput (TEU) average 2014–2022	UNCTADStat's Maritime Profiles
	Tourists per land area, average 2019–2022	World Bank's Development Indicators Online
	Ocean Goods export per capita, 2022	UNCTADstat Ocean Economy Trade

Source: UNCTAD.

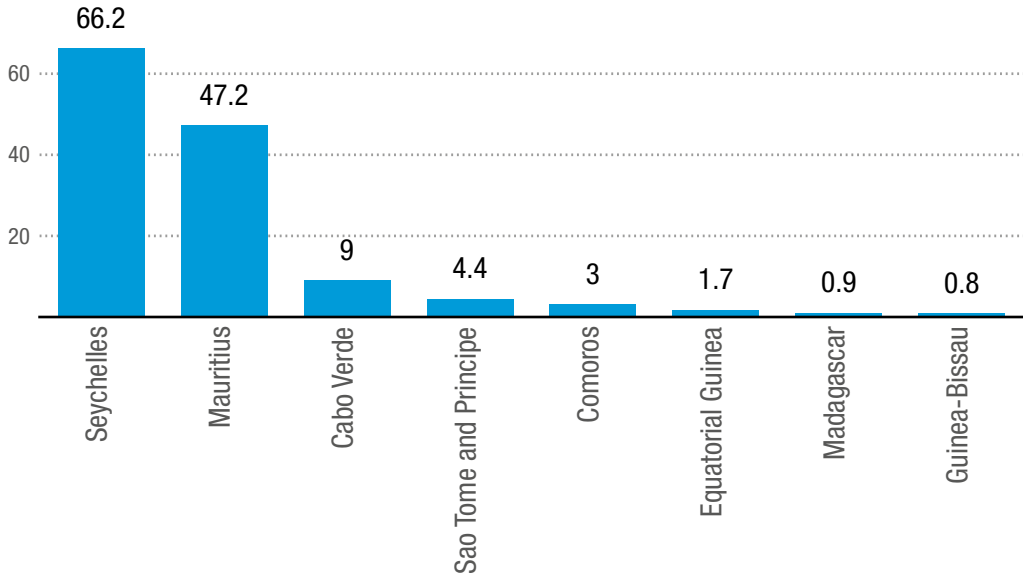
The centrality of the ocean economy to Cabo Verde is clear in the significance of each of these indicators. The vital importance of tourism for service exports and foreign exchange have already been discussed in detail earlier in this report, as well as the extent of maritime (fish) exports. As far as container port activities are concerned, there has been a 53 per cent increase since 2014 – see figure 44. The vast bulk of Cabo Verde's merchandise trade is through shipping vessels.

Figure 44
Cabo Verde: Container Port Traffic 2014-2022 in twenty-foot equivalent units



Source: UNCTAD, based on data from UNCTADStat's Maritime Profiles.

Figure 45
Ocean Economy Scores, African Island States



Source: UNCTAD, compilation based on data from various sources (see Table 16)

As shown in figure 45, Cabo Verde ranks third among its peers in terms of ocean economy capitalisation, following Mauritius and the Seychelles (amongst its peers). It lags these countries partly because its exports of ocean goods are much smaller in value than that of Seychelles and Mauritius, the latter earning around 10 times more from ocean goods exports than Cabo Verde. Whether there is indeed scope for Cabo Verde to grow its ocean goods exports may depend in part on the strength of its maritime resources.

Table 17
Maritime resources component, indicators and data sources

BEE Component	Indicators	Data Sources
Maritime Resources	Fleet national flag No of ships 2022	UNCTADStat's Maritime Profiles
	EEZ (km^2) per capita	Sea Around Us database
	Total Fishing Catch in 2019 (tonnes)	FAO FishStat
	Liner shipping connectivity index, 2021	UNCTADStat's Maritime Profiles
	Fisheries Score from the EPI, 2023	Environmental Performance Index (EPI) Yale University

Source: UNCTAD.

Table 17 shows the four key features reflecting maritime resources: the extent of a country's EEZ (its maritime resource base), the number of ships in its national fleet, the total catch that it extracts in a year in tonnes, how connected its liner shipping is, and how sustainable its fisheries resources are. The latter, measured by the *Fisheries Score from the Environmental Performance Index (EPI)* measures the health and sustainability of a country's fisheries using three indicators: fish stock status, marine trophic index, and fish caught by trawling and dredging. The stronger performance in these categories, the better the chances for Cabo Verde to increase its capitalization of its ocean economy.

Table 18
Selected maritime resources, African Island States

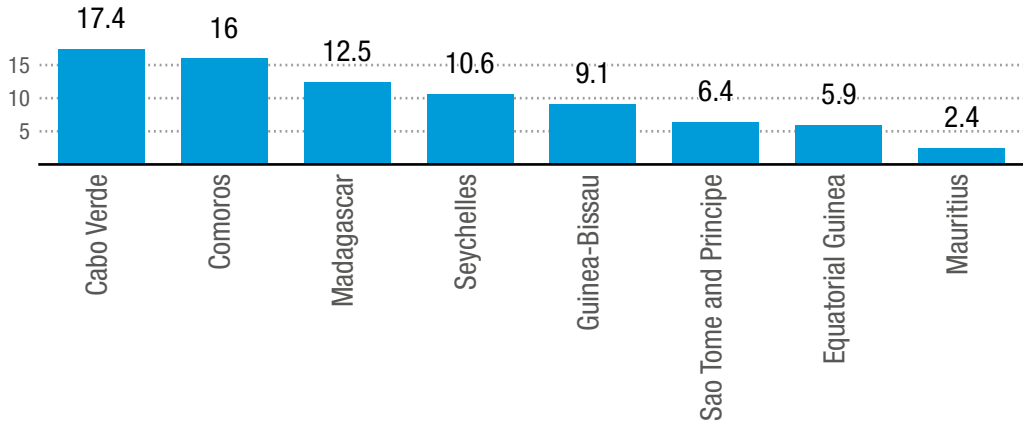
Country	Fleet national flag no. of ships 2022	EEZ (km^2)	Fisheries Score EPI	Total Fishing Catch 2019 (tonnes)
Cabo Verde	46	800,561	38.3	41,114
Comoros	253	163,752	78.40	20,260
Equatorial Guinea	47	303,509	21.9	22,750
Guinea-Bissau	8	123,725	33.0	1,133,938
Madagascar	28	1,225,259	30.2	159 990
Mauritius	33	1,284,997	18.5	15,270
Sao Tome and Principe	24	131,397	19.7	11,520
Seychelles	30	1,336,559	20.3	18,690

Source: UNCTAD, based on data from UNCTAD, FAO FishStat and EPI.

As shown in table 17, Cabo Verde has the fourth largest EEZ among African Island states, after Seychelles, Mauritius and Madagascar. It can be deduced that one reason for Seychelles high ranking and scores in most of the components of the BEE is that it has the largest EEZ of any island state in Africa. Moreover, as the previous analysis in the report has also shown, Seychelles has one of the best biocapacities of all island states. Hence, the natural environment underpinning the ocean and blue economies provides Seychelles with an advantage. By contract, Cabo Verde, however, despite being an arid archipelago with less biocapacity and smaller EEZ, still obtains a higher maritime resource score than the other African Islands States because of the sustainability of its fishing and fish stocks, and its liner shipping connectivity.

The total Maritime Resource Score for Cabo Verde and the other African Island States are shown in Figure 46.

Figure 46
Maritime resources scores, African Island States



Source: UNCTAD, based on data from various sources (see Table 18)

The final component of the BEE is the extent of resilience of the system. Table 19 shows the measurement of the BEE component of resilience.

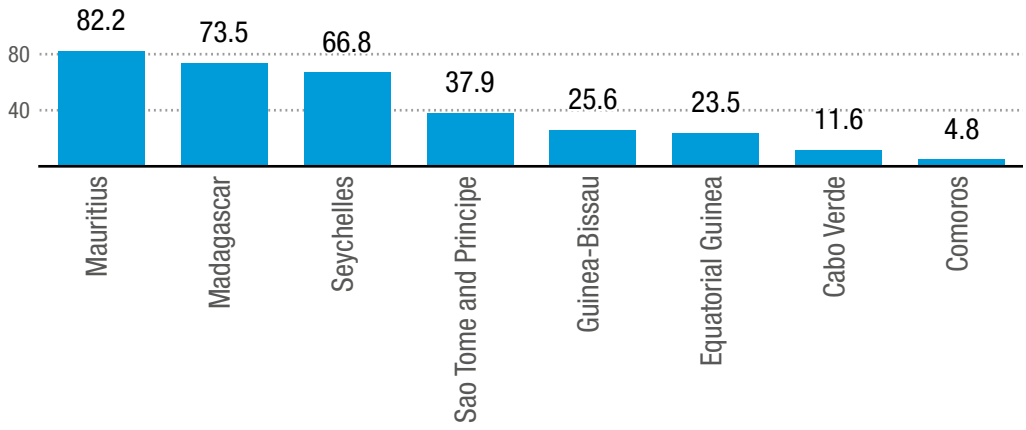
Table 19
Resilience component, indicators and data sources

BEE Component	Indicators	Data Sources
Resilience	Multidimensional Vulnerability Index (MVI) Score, 2023	United Nations
	Social Capital Index score, 2021	Legatum Prosperity Index
	Tourism resilience score, 2023	Ocean Health Index data

Source: UNCTAD.

Because of the wide scope and usefulness of the United Nation's Multidimensional Vulnerability Index (MVI), only two additional indicators were selected to construct a Resilience Score: the social capital score from the Legatum Prosperity Index and the Tourism resilience score from the Ocean Health Index. They provide information on social capital (crucial for SME's resilience) and the robustness of the tourism industry – a central industry in the blue economy – in the face of shocks.

Figure 47
Resilience scores, African Island States



Source: UNCTAD, based on data from the United Nations, Legatum Prosperity Index and Ocean Health Index.

Figure 47 suggests that Cabo Verde's BEE is highly vulnerable and has low resilience in the face of external shocks. In fact, in terms of the MVI, Cabo Verde is the most vulnerable of all the African Island States. Its social capital index and tourism resilience scores are also relatively low, accounting for its low overall score – the second lowest amongst African Island States.

Cabo Verde's vulnerability stems from climate change – droughts and biodiversity loss – as well as external economic shocks, such as the COVID-19 pandemic and the global financial crisis. Additionally, credit and financial shocks related to high government foreign debt can further exacerbate its vulnerability. To reduce these vulnerabilities, an expansion and diversification of goods exports and the promotion of climate robust SME development should be essential policy objectives.

6.5 Linking the BEE to ecological and social outcomes

In this section, the BEE Index will be correlated with the performance of Cabo Verde in terms of a) the ecological boundaries (environmental ceiling), and b) progress in terms of the SDGs (social floor). An well-functioning BEE should be positively correlated with both stronger environmental performance and better performance in terms of the SDGs.

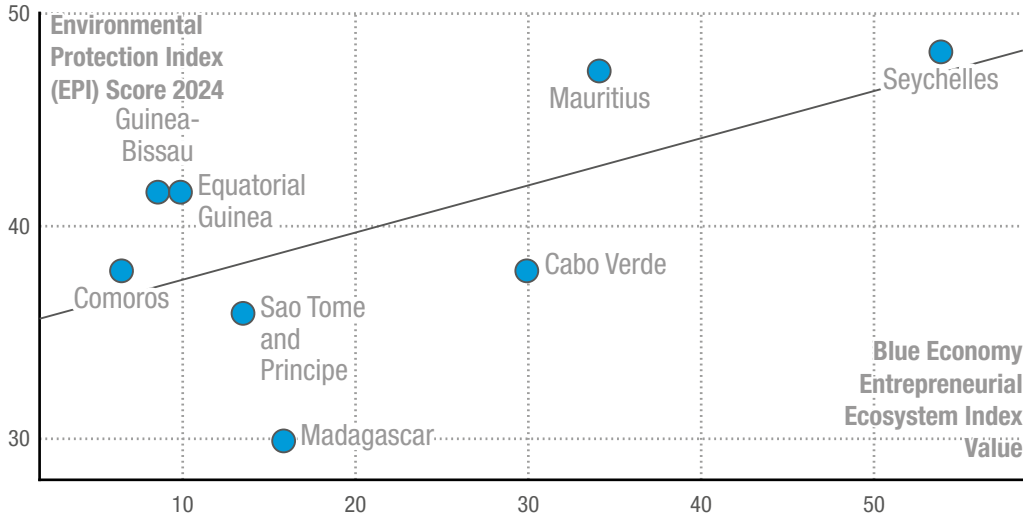
At the outset, it must be clearly stated that the analysis in this section is tentative and intended for purposes of illustrating the concept and policy relevance of the BEE and indicators. Two key limitations apple:

- The analysis is applied to a small sample of countries, specifically eight African Island States. This limits the generalizability.
- The use of correlations (rather than causation) means that standard caveats apply, including the potential for omitted variables and risk of spurious associations.

Nevertheless, the value is that, for illustration purposes, we would expect that improvements in the BEE, as reflected in the chosen indicators, will be associated with improvements in both environment/ecology and social outcomes. To the extent that these associations are lacking, it points in the direction of supplementary policies to change qualitatively the functioning of the BEE.

Figure 48 shows the correlation between countries' BEE Index scores and their scores on the Environmental Protection Index (EPI). Its shows a positive, though somewhat modest correlation.

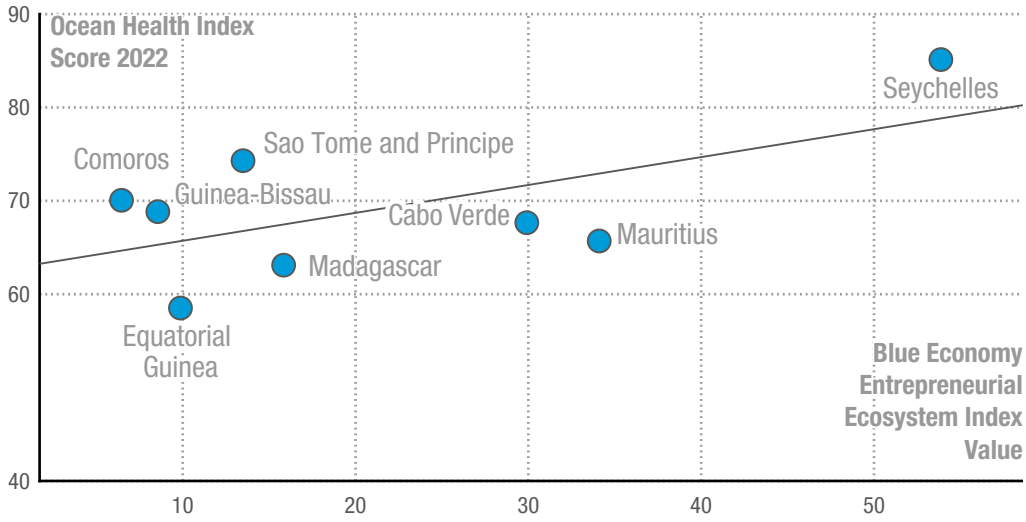
Figure 48
Correlation between BEE Index scores and Environmental Protection Index scores



Source: UNCTAD.

To further investigate the correlations between the BEE and ecological impacts, figure 49 shows the correlation between countries' BEE Index scores and the health of the oceans, as measured by the Ocean Health Index (OHI).

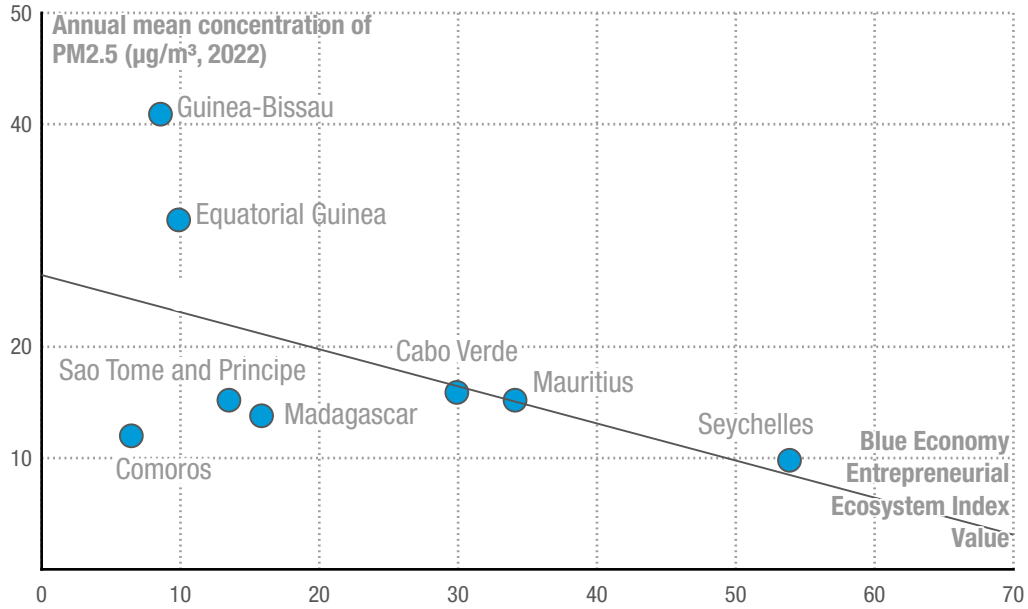
Figure 49
Correlation between BEE Index scores and the health of oceans



Source: UNCTAD.

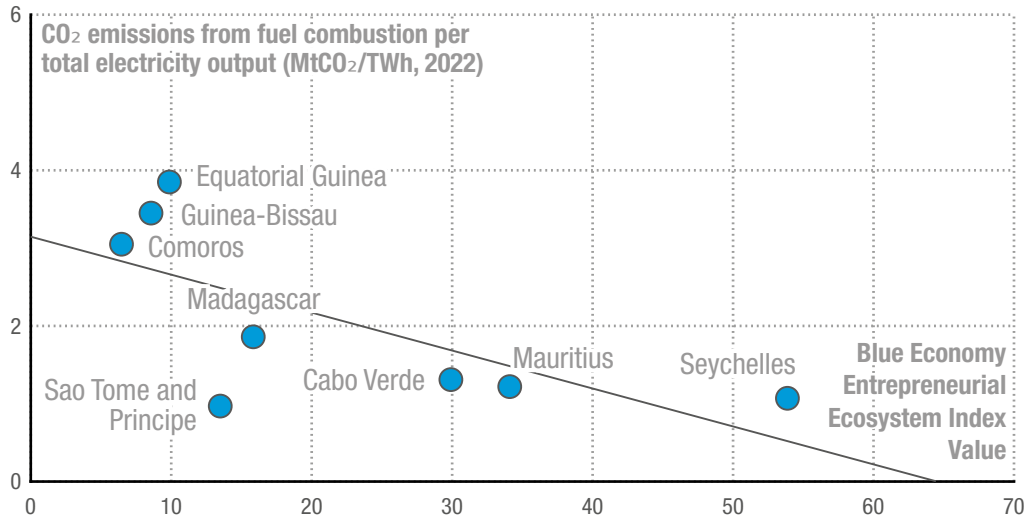
Figure 49 shows that there is a similar positive, but somewhat weak correlation, in the sample between a country's score on the BEE Index and on the Ocean Health Index. This is largely driven by the outlier of Seychelles – without which the positive correlation disappears. This implies a warning: development of the BEE Index will not automatically lead to improved ocean health. Figure 50 shows the correlation between BEE Index scores and air pollution, as measured by the annual mean concentration of PM2.5.

Figure 50
Correlation between BEE Index scores and air pollution



Source: UNCTAD.

Figure 51
Correlation between BEE Index scores and CO2 emissions from fuel combustion per total electricity output, 2022



Source: UNCTAD.

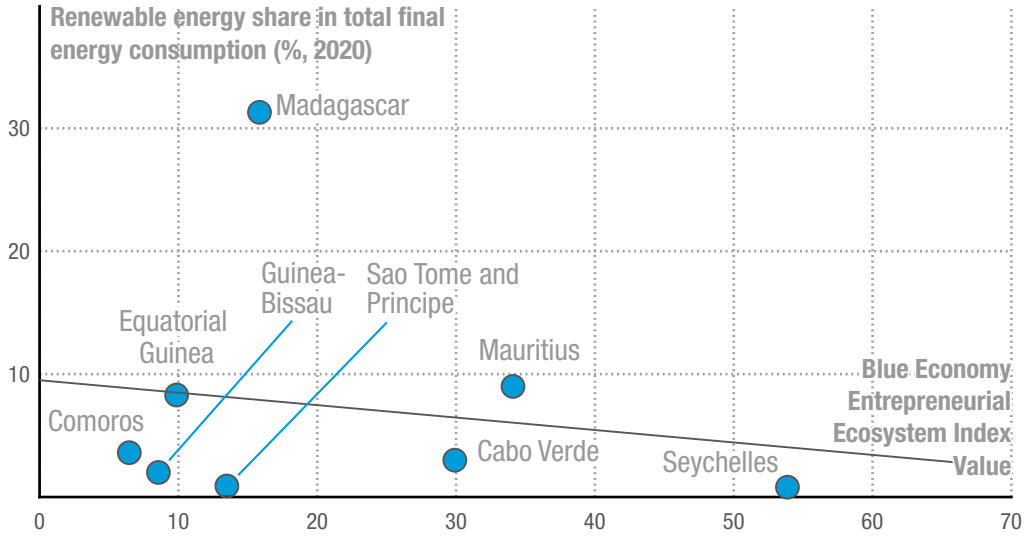
There is a positive association between the BEE and ecological outcomes.

Hence, the illustration thus far notes a positive correlation between the BEE Index and Environmental Protection and Ocean Health. It also shows a negative correlation between BEE and CO_2 emissions from electricity and air pollution. This all suggests that there is a positive association between the BEE and ecological outcomes.

However, this should not be assumed to be the case for all ecological impacts, with caution against a general trust that building the BEE following the components and indicators that have been used so far will inevitably improve the natural environmental. A major area where the BEE's impact needs closer scrutiny, is illustrated in figure 52, which shows that higher BEE scores in

African Island States are associated with reduced renewable energy share. This likely reflects legacy investments and historical dependencies on imported fossil fuels in the more developed island economies.

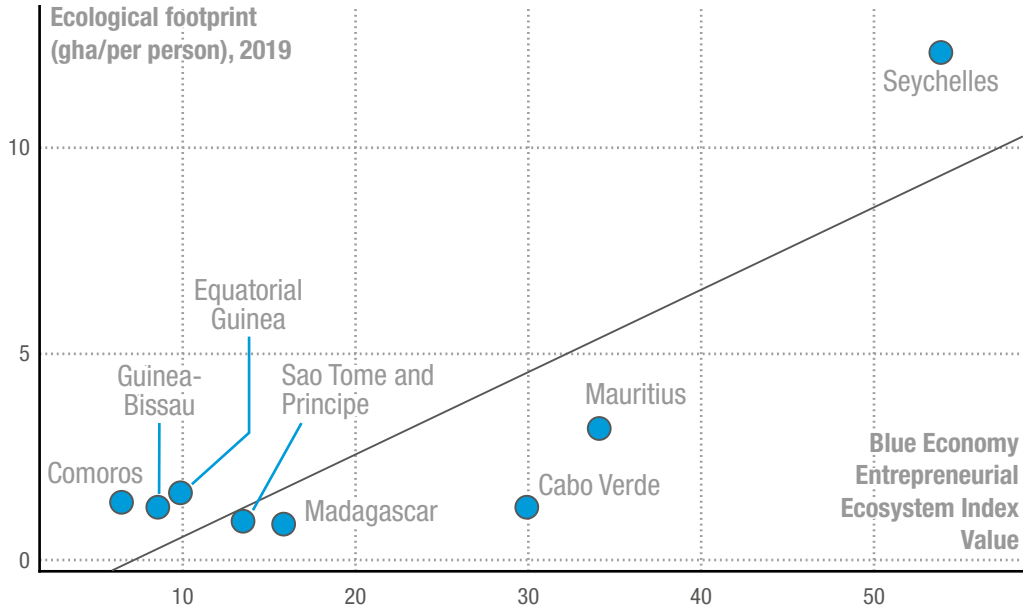
Figure 52
Correlation between BEE Index scores and renewable energy shares



Source: UNCTAD.

Moreover, as shown in figure 53, better-performing BEE in African Island States are also associated with greater ecological footprints.

Figure 53
Correlation between BEE Index scores and ecological footprints

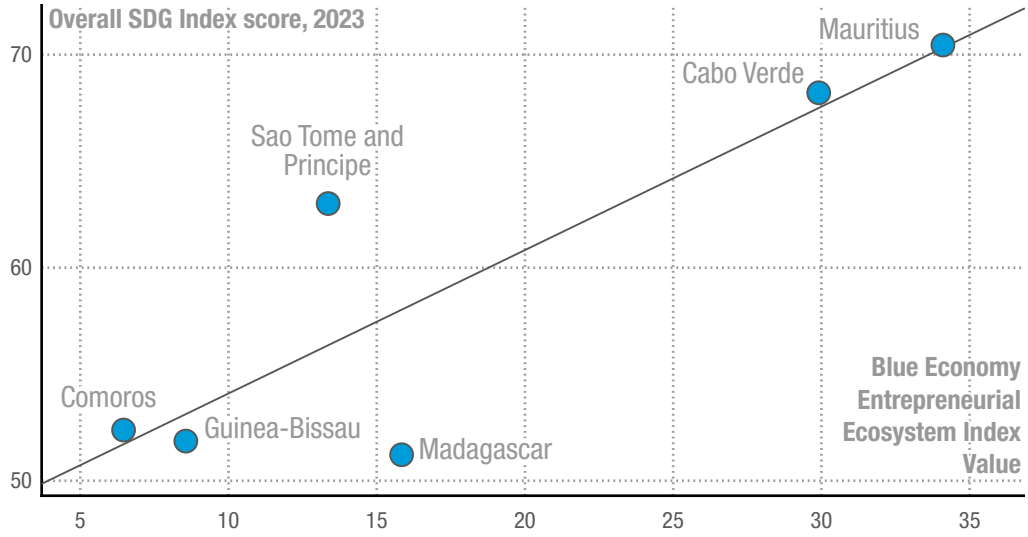


Source: UNCTAD.

Finally, the BEE also contributes to improved social outcomes, as measured for instance by progress towards the Sustainable Development Goals (SDGs).

Figure 54 shows the correlation between countries' BEE Index scores and their scores on the United Nations's SDG Index. It also shows a positive a stronger correlation: countries with a high BEE Index value also tend to have a better performance in terms of achieving the SDGs.

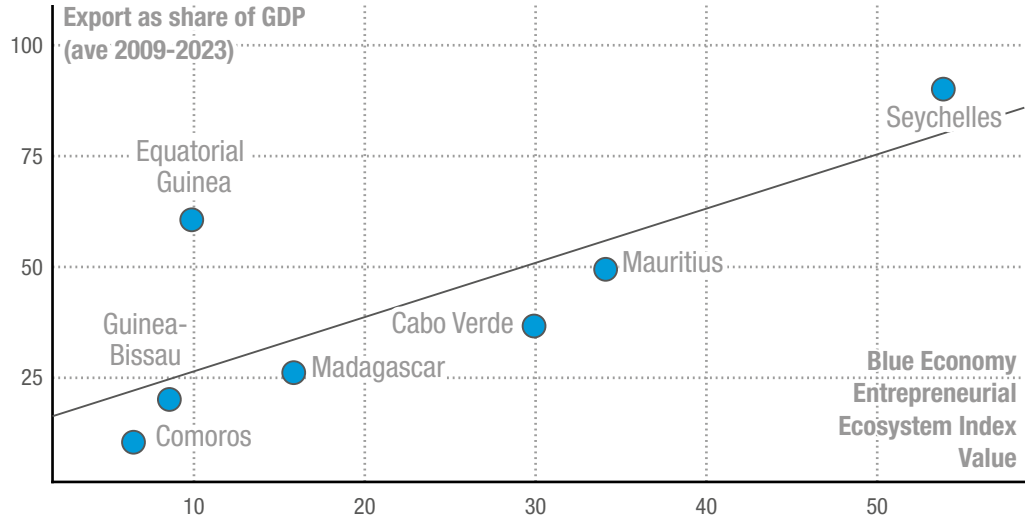
Figure 54
Correlation between BEE Index scores and SDG performance



Source: UNCTAD.

Figure 55 shows that better BEE outcomes are associated with a higher share of exports in GDP in the small sample of African Islands States. This suggests that promoting and strengthening the BEE in Cabo Verde would be consistent with an expansion of exports.

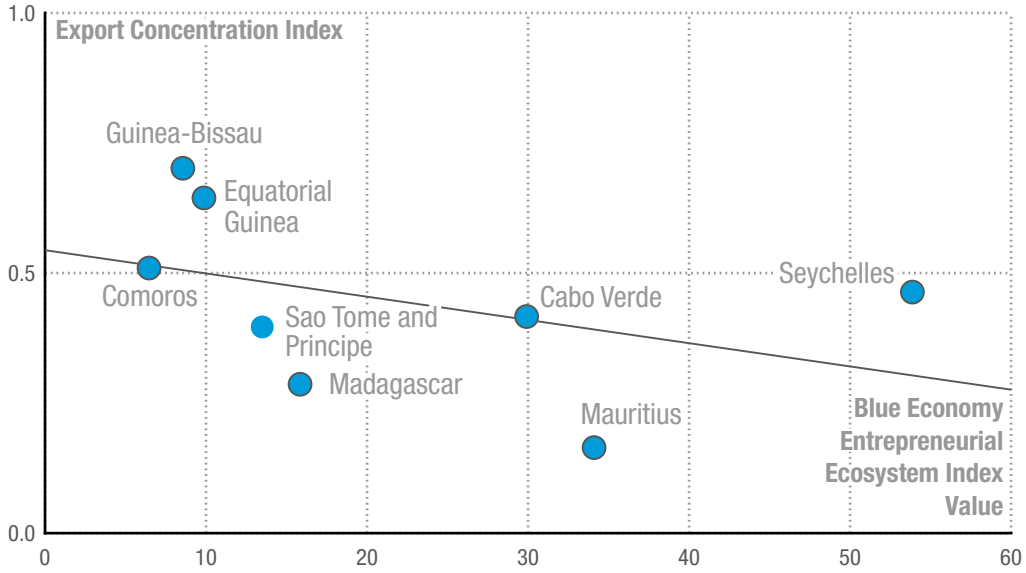
Figure 55
Correlation between BEE Index scores and export performance



Source: UNCTAD.

The positive relationship between a better BEE and export performance is further supported by figure 56, which shows a negative association between the BEE Index value and the Export Concentration Index (as reported by UNCTADStat). Thus, countries with a better BEE have less concentrated export basket.

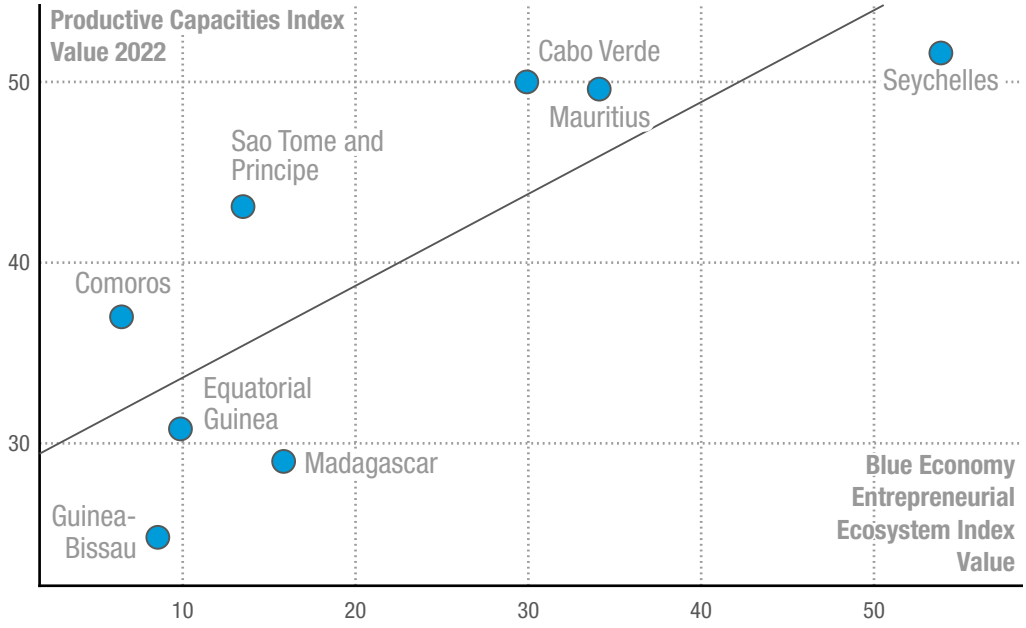
Figure 56
Correlation between BEE Index scores and export concentration



Source: UNCTAD.

Figure 57 indicates that countries with a higher BEE Index generally tends to have better overall productive capacities, as measured by UNCTADStat's Productive Capacities Index (PCI). This is not surprising, as the PCI includes many similar indicators as the BEE. For example, the PCI measures the levels of productive capacities across eight categories: natural capital, human capital, energy, institutions, the private sector, structural change, transport, and information and communication technologies[46].

Figure 57
Correlation between BEE Index scores and productive capacities



Source: UNCTAD.

[46] Seehttps://unctadstat.unctad.org/datacentre/reportInfo/US.PCI.

6.6 BEE policy recommendations

Before detailing the policies to improve the BEE in Cabo Verde, is it useful to spell out the opportunities and challenges that it presents. Policies should aim to help the system capitalise on the opportunities and minimise the challenges.

Several opportunities have emerged from the analysis, particularly for expanding and diversifying exports and for integrating into global value chains:

- Sustainable Artisanal Fishing: Cabo Verde has a relatively high Artisanal Fishing Opportunity score, ranking third among African Island States. This indicates the potential for sustainable growth and expansion in this sector. The Ocean Health Index suggests that artisanal fishing in Cabo Verde remains sustainable, offering opportunities for economic development and food security.
- Unexploited Ocean Economy Potential: Cabo Verde ranks third in capitalizing on its ocean economy among its peers, after Mauritius and Seychelles. However, its ocean goods exports are significantly lower. This indicates substantial untapped potential to grow its ocean-based industries, particularly in high-value sectors like fisheries, to boost exports and economic growth.
- Expanding Existing Maritime Strengths: Cabo Verde possesses the fourth largest Exclusive Economic Zone (EEZ) among African Island States and with established liner shipping connectivity. These factors provide a strong foundation for expanding its maritime industries and further developing its ocean economy.
- Improving Existing Infrastructure: Cabo Verde can build upon existing relatively well-developed infrastructure, including container port activities that have increased by 53 per cent since 2014. This growth in port capacity can support increased trade and the expansion of the Blue Economy.

Cabo Verde can build upon well-developed infrastructure, including container port activities.

The specific export/global value chain expansion opportunities that were noted, include:

- Fisheries Expansion: The report suggests there is scope for expansion of fisheries and fish exports from Cabo Verde, particularly in artisanal fishing. It highlights the sustainability of artisanal fishing practices as a significant advantage.
- Value-Added Fish Products: While the report doesn't explicitly mention it, the emphasis on improving artisanal fishing infrastructure, including processing plants, suggests an opportunity to move beyond exporting raw fish. Developing value-added fish products could increase export earnings and create jobs in Cabo Verde.
- Ocean Goods Exports: The report notes that Cabo Verde underperforms in ocean goods exports compared to Mauritius and Seychelles. This indicates an opportunity for growth, though the specific products that could be developed are not discussed.
- Reducing tariff barriers could facilitate greater participation in global value chains for Cabo Verdean firms. It implies that easing access to cheaper imports could enhance the competitiveness of Cabo Verdean products for export.
- Digital Economy and E-commerce: The report highlights the importance of digital technologies for Blue Economy development, including promoting e-commerce platforms for SMEs. This suggests opportunities to expand exports by leveraging digital channels to reach new markets.

As far as the challenges to the success of the system is concerned, including to generate more and diverse exports, the following can be noted:

- Dominance of Industrial Fishing: The dominance of industrial fishing, often by foreign fleets, poses a significant challenge to the growth and development of the artisanal fishing sector. This

dominance limits the opportunities for small-scale fishers and can negatively impact the sustainability of fish stocks.

- Limited Financial Access for SMEs: While Cabo Verde has the third most developed financial sector among African Small Island Developing States, access to finance remains a significant challenge for SMEs, particularly for those in the blue economy. Limited access to capital hinders business growth, innovation, and competitiveness.
- High Vulnerability and Low Resilience: Cabo Verde's BEE faces high vulnerability to external shocks, ranking as the most vulnerable among African Island States according to the United Nations's Multidimensional Vulnerability Index. The country's reliance on tourism and its susceptibility to climate change impacts, such as droughts and biodiversity loss, pose significant threats to its economic stability.
- Social Inequality and Human Capital: Although Cabo Verde demonstrates good progress in human development, high levels of inequality persist. This inequality limits access to education and skilled labor, potentially hindering the growth of SMEs in the blue economy that require a qualified workforce.
- Sustainability Concerns and Environmental Impacts: While a positive correlation exists between a strong BEE and positive environmental outcomes in some areas, there are concerns. Notably, better-performing BEEs in African Island States correlate with reduced renewable energy shares and larger ecological footprints. This highlights the need for careful consideration of sustainable practices within Cabo Verde's BEE to ensure its long-term viability and minimize negative environmental consequences.

Given the above opportunities and challenges, the following six broad concrete policy recommendations follow from the analysis in this section of the report, as set out in Table 20.

Table 20
Key Broad Policy Recommendations for the BEE

Policy thrust	Key Action Steps
Empowering Artisanal Fisheries and Ensuring Sustainable Fishing Practices	• Manage Industrial Fishing to allow for more sustainability, local value added and linkages to the SME sector. • Invest in Artisanal Fishing Infrastructure • Strengthen Monitoring and Enforcement: Promote Sustainable Fishing Practices
Improving Access to Finance for Blue Economy SMEs	• Develop Specialized Financial Products • Establish a Blue Economy Investment Fund • Facilitate Access to (more) Climate Finance
Strengthening Human Capital and Addressing Social Inequality	• Investments in Targeted Education and Skills Development • Promote Equal Opportunities for women and youth • Improve Access to Education and Healthcare
Enhancing Resilience and Mitigating Vulnerability	• Continue the existing strategies aiming at diversifying the economy, especially towards diversifying trade towards West Africa. • Investing more in Climate Change Adaptation also through seeking out more climate funding • Continue to strengthen Social Safety Nets and reduce inequality through transfers
Promoting Sustainable Practices and Environmental Protection	• Integrate Sustainability into BEE Policies • Increase Renewable Energy Use • Promote Sustainable Tourism Practices
Leveraging Digital Technologies	• Improve Internet broadband speed • Integrate digital into government and port management • Promote E-commerce and Digital Marketing

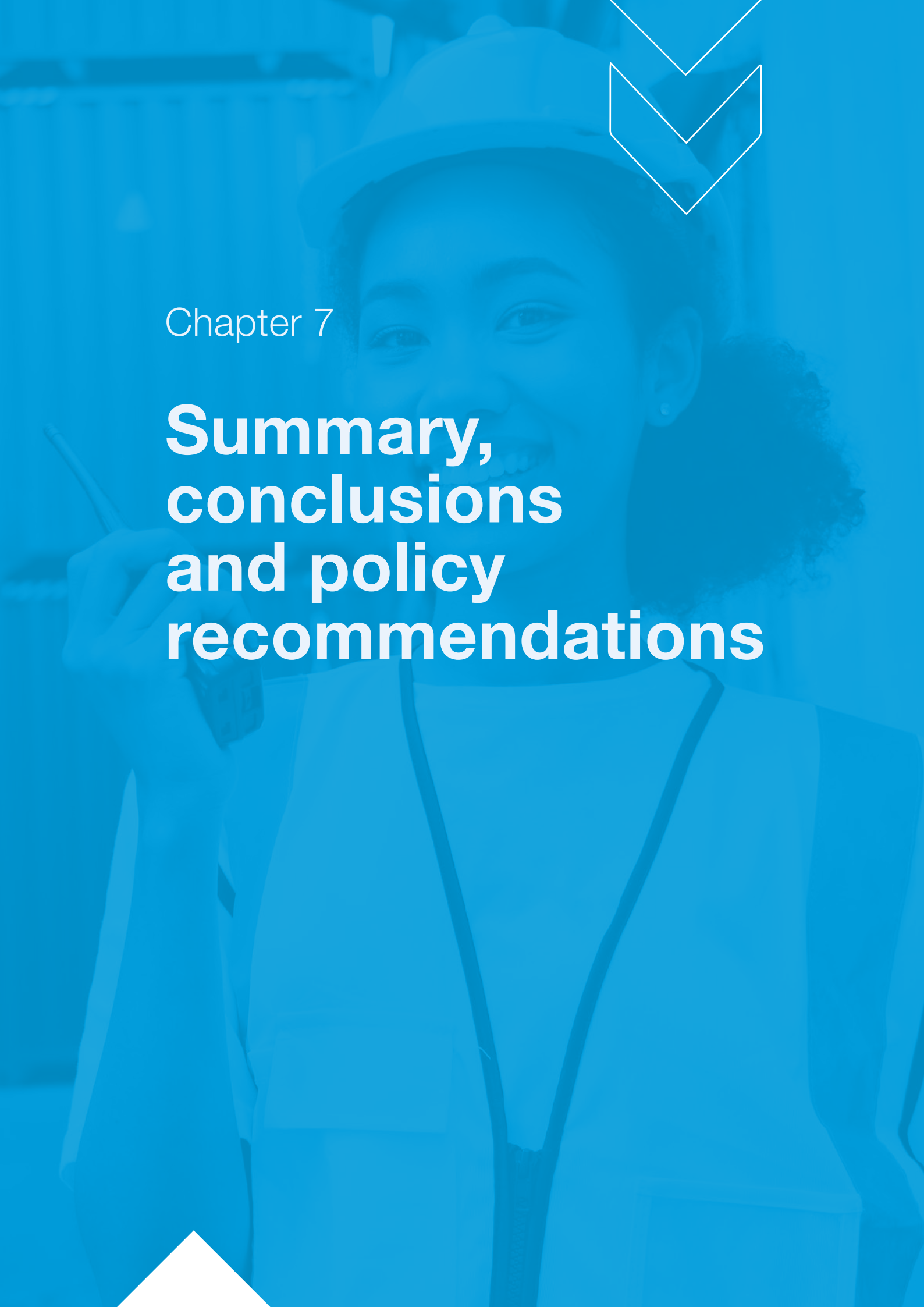
Source: UNCTAD.

6.7 Summary and conclusions regarding the BEE

Key findings from the assessment of Cabo Verde's BEE:

- Financial Capital: Cabo Verde has a relatively developed financial sector compared to other African SIDS. However, access to finance remains a challenge for SMEs, particularly those in the blue economy. The report highlights the need for improved access to climate finance to support sustainable development in this sector.
- Human Capital: Cabo Verde demonstrates progress in human development, ranking third among African Island States in the Human Development Index. However, high levels of inequality persist, potentially hindering access to education and skilled labor. The report emphasizes the need for investments in targeted education and skills development to support the growth of the blue economy.
- Market Size: Cabo Verde's market size is relatively small compared to other African SIDS, but the country benefits from a low poverty rate and high trade openness. However, high tariff barriers may hinder further integration into global value chains.
- Business Environment: Cabo Verde scores relatively well in terms of its business environment, with good access to electricity and a decent infrastructure score. The report emphasizes the importance of internet connectivity and the adoption of digital technologies to further strengthen the BEE. It also highlights the sustainable nature of artisanal fishing in Cabo Verde, presenting an opportunity for growth.
- Governance: Cabo Verde demonstrates strong governance, particularly in managing its fisheries, ranking second in the Governance Score among African Island States. There is, however, room for improvement in civil society participation.
- Ocean Economy: While Cabo Verde has capitalized on its ocean economy to some extent, it lags behind Mauritius and Seychelles, particularly in the value of ocean goods exports. This suggests significant untapped potential for growth in this sector.
- Maritime Resources: Cabo Verde possesses the fourth largest EEZ among African Island States and benefits from excellent liner shipping connectivity. The sustainability of its fisheries further strengthens its maritime resource score.
- Resilience: Cabo Verde's BEE faces high vulnerability to external shocks, including climate change impacts and economic crises. The country's reliance on tourism exacerbates this vulnerability. The report stresses the need to enhance resilience through economic diversification, climate change adaptation, and strengthening social safety nets.

Six broad concrete policy recommendations were made for improving and fine-tuning the BEE.



Chapter 7

Summary, conclusions and policy recommendations

Cabo Verde has potential to expand its exports, particularly through leveraging its ocean-based resources and strengthening its engagement with African markets. However, this expansion requires careful consideration of the country's ecological boundaries and a strategic approach to developing a robust and sustainable Blue Economy Entrepreneurial (BEE) Ecosystem and linking it to the African (ECOWAS) region. This report investigated how it can best be done, considering the ecological fragility, trade and value chain fragility, export opportunities, and Blue Economy Entrepreneurial Ecosystem of Cabo Verde. The following section summarises the key findings.

7.1 Ecological fragility of the blue economy

Section 2 of the report examines the ecological boundaries within Cabo Verde, focusing on the ocean (blue) economy perspective and highlighting the vulnerabilities the islands face.

Cabo Verde's geographical location classifies it as having a hot desert or hot semi-arid climate, making it part of the Sahara/Sahel region. The geographic position and climate create unique ecological challenges for the country. While temperatures are moderated somewhat by the ocean, the islands are exposed to extreme weather events, including desertification, droughts, heavy rains, and sea-level rise.

Analysis of historical rainfall data from 1910 to 2022 indicates a long-run declining trend, further emphasizing the challenges posed by climate change. This decreasing rainfall, coupled with limited freshwater availability, puts a significant strain on water resources, impacting livelihoods, infrastructure, and agricultural productivity. Data from the World Bank reveals that a substantial 35 per cent of Cabo Verde's renewable water resources are withdrawn annually for agriculture, significantly higher than the median for other African SIDS.

Cabo Verde's ecological footprint exceeds its biocapacity, leading to a biocapacity deficit**.** In 2019, the country's ecological footprint per person was 1.3 global hectares, while its biocapacity was only 0.4 global hectares per person. This deficit suggests that Cabo Verde's resource use is unsustainable, exceeding the capacity of its ecosystems to regenerate. Comparing Cabo Verde with other African SIDS reveals that it has one of the lowest biocapacities in the group, further emphasizing its ecological vulnerability.

The report underscores the importance of the ocean economy for Cabo Verde, but it also acknowledges its vulnerability**.** The global ocean economy is facing threats from over-fishing, pollution, and climate change, raising concerns about its long-term sustainability. While Cabo Verde has designated some (too small) portion of its territorial waters as Marine Protected Areas, it still faces challenges from plastic pollution and the impacts of climate change on marine ecosystems.

7.2 Trade profile fragility

Section 3 of the report examines Cabo Verde's trade and integration into global value chains (GVCs), particularly within the context of regional integration, especially in ECOWAS.

Cabo Verde's trade is characterized by structural trade deficits, with imports significantly exceeding exports. In 2022 and 2023, Cabo Verde exported total products worth US $42 and US $54 million, respectively, while importing goods worth US $910 and US $980 million, respectively. This trade imbalance highlights the country's reliance on imports and the need to increase export earnings.

Cabo Verde's exports are heavily concentrated in a few sectors, primarily tourism and fisheries. Tourism accounts for the majority of service exports, while fish (tuna) exports, mainly tuna and mackerel, constitute a significant portion of merchandise exports. This dependence on primary commodities makes Cabo Verde vulnerable to global price fluctuations and economic shocks.

Cabo Verde's trade is primarily oriented towards Europe, with limited trade with other African countries. On average, 86 per cent of the country's goods exports are destined for Europe, while only 4.3 per cent go to the rest of Africa. Similarly, 74 per cent of imports originate from Europe, while only 7 per cent are sourced from Africa. This limited regional integration presents a challenge for Cabo Verde to benefit from the AfCFTA and expand trade within the African continent.

Participation in GVCs can offer opportunities for increased exports, job creation, and technological upgrading. However, Cabo Verde's participation in GVCs has declined since the late 1990s, and it remains concentrated in low value-added activities, such as seafood processing and textile manufacturing.

The findings of Section 3 highlight the fragility of Cabo Verde's trade profile and its limited integration into regional and global value chains. The section emphasizes the need for policies that promote export diversification, strengthen regional trade ties, and enhance participation in GVCs, particularly in higher value-added activities. Addressing these challenges is crucial for Cabo Verde to achieve sustainable economic growth and reduce its vulnerability to external shocks and a structural trade deficit.

7.3 Export opportunities

Section 4 of the report centers on identifying new opportunities for export expansion for Cabo Verde, particularly within the African region. It examines existing export patterns, analyzes potential unrealized export opportunities, and explores the extent to which these opportunities are located in Africa.

It is found that the top 10 short-term export products from Cabo Verde in 2022 include a mix of primary commodities and manufactured goods, indicating some progress in diversification beyond fish and tourism. These products are:

1. Prepared or preserved fish
2. Non-fillet frozen fish
3. Fish fillets
4. Ships, port equipment and parts, and port services
5. Non-ferrous base metal waste and scrap
6. Liquified propane and butane
7. Worn clothing and other worn textiles
8. Fresh, chilled, or frozen fish
9. Animal oils and fats
10. Footwear

Despite this diversification, there is limited scope for sustainable increases in raw fish exports. The key constraints are the finite nature of marine resources and the potential negative ecological consequences of intensified fishing. This also implies the need to prioritize sustainable fishing practices, particularly for the dominant export species, skipjack tuna, which faces a low margin of safety despite not being currently threatened by overfishing.

There are several potential long-run export opportunities for Cabo Verde, particularly

within the context of its Blue Economy and regional integration with Africa. These are in value-added fish products, artisanal fishing. Moreover, Cabo Verde has significant untapped potential in its ocean economy, particularly in high-value sectors beyond fisheries. This includes opportunities to develop into maritime services. The country could develop logistics and transportation services, potentially serving as a regional hub for maritime trade.

Furthermore, Cabo Verde has abundant solar and wind resources, offering potential for developing a renewable energy production and export sector. The country has already made progress in solar power development, and a feasibility study for green hydrogen production has been commissioned. Exporting renewable energy to other African countries could be a viable long-term opportunity, particularly as demand for green energy increases.

In addition to energy, Cabo Verde could potentially export desalinated water to other African countries facing water scarcity. This could become a viable opportunity in the long run, given increasing demand due to climate change and the growing importance of West African water supply chains.

This section also highlights the importance of the digital economy for Cabo Verde's development and its potential role in expanding exports. This could involve promoting digital entrepreneurship, developing e-commerce platforms for SMEs, and leveraging digital channels to reach new markets.

Overall, Cabo Verde has a range of potential long-run export opportunities, primarily linked to its Blue Economy and its strategic location within Africa. However, realizing these opportunities requires a focus on sustainable development, investment in key sectors like renewable energy and ICT, and a strategic approach to regional integration through the AfCFTA.

The country could develop logistics and transportation services, potentially serving as a regional hub for maritime trade.

7.4 Building a Blue Economy Entrepreneurial Ecosystem

Section 5 of the report introduces the concept of a Blue Economy Entrepreneurial Ecosystem (BEE) as a strategic framework for Cabo Verde to expand its exports, particularly in the context of the African Continental Free Trade Agreement (AfCFTA). This section argues that a robust BEE is essential for Cabo Verdean SMEs to capitalize on the country's export potential while respecting its ecological boundaries.

Simply increasing production and exports of existing products, referred to as growth on the intensive margin, is not a sustainable approach for Cabo Verde. This is because intensive growth, such as increasing fish catches, is limited by finite resources and the potential negative environmental consequences, as noted in the analysis of Cabo Verde's fishing industry in earlier sections of the report. Cabo Verde's reliance on primary commodities makes its economy vulnerable to external shocks, such as price fluctuations and demand shifts. Thus, the need is for a more sustainable model, emphasizing that the challenge for Cabo Verde is not to achieve traditional economic growth, but rather to support an ecosystem of eco-entrepreneurs who can find innovative solutions for a post-growth society.

The BEE is a solution that can address these challenges and promote sustainable economic development. The BEE as a network of interconnected elements that support entrepreneurial activity. This ecosystem includes financial capital, human capital, market size, the ocean economy, maritime resources, the business environment, governance, and resilience. SMEs are particularly well-suited to capitalize on opportunities within the Blue Economy due to their adaptability,

specialized knowledge, and ability to create jobs and foster sustainable livelihoods.

Section 6 of the report proposes and measures Cabo Verde's Blue Economy Entrepreneurial Ecosystem (BEE). It identifies eight components of the BEE, including financial capital, human capital, market size, ocean economy, maritime resources, business environment, governance, and resilience.

The key argument is that developing a robust BEE is crucial for Cabo Verde to expand exports, especially those related to the ocean economy. To assess the BEE, in this section a variety of measurable indicators are used, and Cabo Verde is benchmarked against other African Small Island Developing States (SIDS).

It is shown that while Cabo Verde's BEE is relatively strong in some areas, such as governance and ocean economy, it faces significant challenges in terms of resilience and vulnerability to external shocks. As far as these are concerned, the following was noted:

The dominance of industrial fishing poses a significant challenge to the growth and development of the artisanal fishing sector.

- Dominance of Industrial Fishing: The dominance of industrial fishing, often by foreign fleets, poses a significant challenge to the growth and development of the artisanal fishing sector. This dominance limits the opportunities for small-scale fishers and can negatively impact the sustainability of fish stocks.
- Limited Financial Access for SMEs: While Cabo Verde has the third most developed financial sector among African Small Island Developing States, access to finance remains a significant challenge for SMEs, particularly for those in the Blue Economy. Limited access to capital hinders business growth, innovation, and competitiveness.
- High Vulnerability and Low Resilience: Cabo Verde's BEE faces high vulnerability to external shocks, ranking as the most vulnerable among African Island States according to the UN's Multidimensional Vulnerability Index. The country's reliance on tourism and its susceptibility to climate change impacts, such as droughts and biodiversity loss, pose significant threats to its economic stability.
- Social Inequality and Human Capital: Although Cabo Verde demonstrates good progress in human development, high levels of inequality persist. This inequality limits access to education and skilled labor, potentially hindering the growth of SMEs in the Blue Economy that require a qualified workforce.
- Sustainability Concerns and Environmental Impacts: While a positive correlation exists between a strong BEE and positive environmental outcomes in some areas, there are concerns. Notably, better-performing BEEs in African Island States correlate with reduced renewable energy shares and larger ecological footprints. This highlights the need for careful consideration of sustainable practices within Cabo Verde's BEE to ensure its long-term viability and minimize negative environmental consequences.

Given the above opportunities and challenges, six broad concrete policy recommendations are made.

7.5 Strategy towards AfCFTA

Finally, this report comes to one of the central questions that it set out to answer: how can Cabo Verde best position itself so that its private sector, in particular the SME sector, can expand the country's exports through trade integration with other African countries, in light of the African Continental Free Trade Agreement (AfCFTA)?

To put the answer in perspective, the following profile of Cabo Verde's trade with Africa was sketched:

- Only around 4 per cent of Cabo Verde's exports are to other African countries – the country is very dependent on only three export markets – Spain, Italy and Portugal, which are, on average, more than 3,000 km away in distance.
- Even less is traded with the closest African region, ECOWAS, where over the last three years, total exports and imports amounted to US $4 million each, approximately.
- Exports to other African countries have been declining since 2018.
- Cabo Verde runs a trade deficit with the rest of Africa – importing more from the continent than exporting to it.
- Cabo Verde's main goods exports to African countries are heterogenous, consisting largely of goods in which the country does not have a comparative advantage. Less than 1 per cent of Cabo Verde's fish exports, for example, is destined for the continent.
- Over the past three years, the single largest Africa trade partner has been Senegal, from which Cabo Verde also imports fish for local consumption and processing for re-export.
- The main reasons for the low levels of trade between Cabo Verde and the rest of Africa, particularly the ECOWAS region, is that countries' trade is very similar: most countries' imports are dominated by petroleum (energy) imports and natural resource and petroleum exports, such as minerals, gold, fuel, and cocoa, cotton and fruit and nuts. Relatedly, high transaction (and transport) costs within the region, and lack of knowledge of trade opportunities and effective trade facilitation mechanisms, are inhibiting growth of trade where possibilities exist.

As far as the possibilities or opportunities for increased trade between Cabo Verde and the rest of Africa (ECOWAS) is concerned, it was noted in this report that there are opportunities for Cabo Verde to export more fish, clothing, and recycled metals and waste to the ECOWAS countries. These are opportunities that corresponds to the revealed comparative advantage of Cabo Verde. It was also noted that the opportunity to export ICT and port services, and port services that are based on ICT improvements (e.g. digital port management) may not only provide an export opportunity directly for these industries, but also help to increase transport efficiency and hence open up possibilities for other trades to take place.

It was also noted that, over the longer term, given the fact that several ECOWAS countries import mineral water, and some import electricity, that Cabo Verde's investments in renewable energy and desalinated water may open up opportunities for the country to export energy and water to ECOWAS in the future. Given climate change and global green industrial policies, the demand for these and the importance of West African green energy and water supply chains, are set to increase in importance.

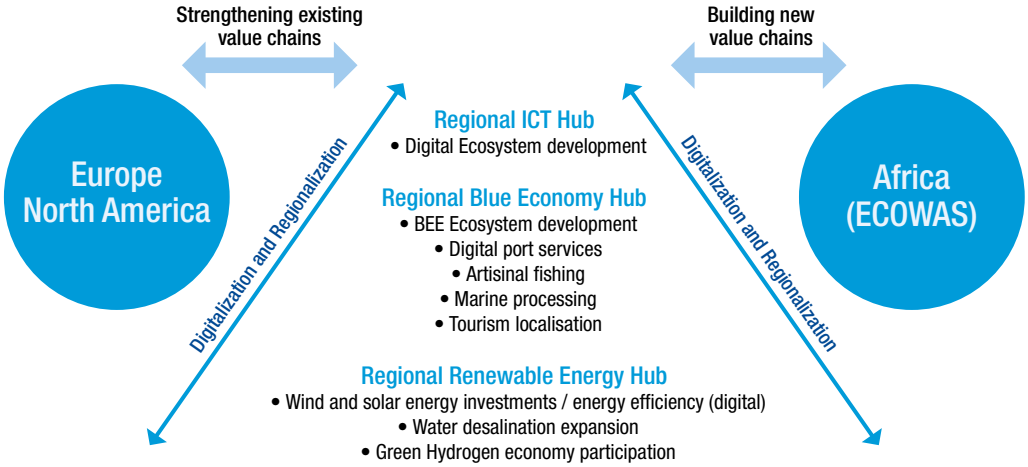
It was also noted that there are opportunities for Cabo Verde to import more from Africa (ECOWAS), and thus, potentially shorten and de-risk its supply chains in certain areas. It was noted that, again under the provision that trade and transport costs in ECOWAS decline, that there are opportunities to shift imports of petroleum oil and cotton, nuts, cocoa, and fruits from Europe and elsewhere to African sources, as all of these goods are exported by many ECOWAS countries.

Finally, given that trade levels are so low, and has been low for decades, it would be unreasonable to expect that Cabo Verde would, over the short term, significantly change its trade patterns. This will only happen, over the medium to longer term, if the benefits from AfCFTA start to materialize, and if the Cabo Verde government adopts a deliberate strategy of export diversification and AfCFTA integration. Diagram 5 proposes the outlines of such a strategy, which represents a regional diamond strategy.

Main reasons for the low levels of trade between Cabo Verde and the rest of Africa is that countries' trade is very similar.

Opportunities for increased trade between Cabo Verde and the rest of Africa include fish, clothing, and recycled metals.

Diagram 5
Proposed outlines for a regional diamond strategy towards AfCFTA



Source: UNCTAD.

Diagram 5 shows that. regional export strategy towards AfCFTA should consist of three integrated layers: the foundation in energy and water, the centre built around the blue economy and the blue economy entrepreneurial ecosystem (as described and measured in this document), and the top, or spearhead – the ICT/ digitalization of the economy. The diagram suggests that the integration of digital all through these layers, as well as the regionalization of all layers. As such, the strategic aim should be to establish Cabo Verde as a regional hub for ICT, the blue economy and renewable energy.

The analysis in this report has shown that this is feasible, and that Cabo Verde is likely to possess a latent and dynamic comparative advantage in the region in these three areas. For instance, it has one of the most affordable, accessible and developed ICT sectors in the ECOWAS region, as well as the highest level of marine resources and the best fisheries governance, and its renewable energy potential is acknowledged. Moreover, in ICT, renewable energy and tourism, Cabo Verde has strong historical ties with the European Union, from which it can access know-how, finance and FDI in these areas and leverage these to expand access and value added to the regional ECOWAS economy.

The immediate short-term actions to turn this strategy into results will be to:

- Build strong trade facilitation institutions and support, specifically for SMEs, who find it difficult and expensive to export
- Invest in ICT, especially fast broadband access, which is crucial for business performance in the digital economy
- Expand access to finance, again especially for SMEs
- Focus more on artisanal fishing, as a sustainable, poverty-reducing and job-creating local SME sector.
- Adopt and promote the framework of the BEE as set out in this report.

Appendices

Appendix A
Methodological note

In the first part of section 3, the trade statistics used for Cabo Verde are reported by the WTO, IMF, the World Bank, as well as the ITC Trade Map, which uses also the COMTRADE data. These are the recognised international sources of trade data. However, it must be stressed that international data are subject to various measurement problems and inconsistencies. This includes lack of statistical reliability and capability between countries, as well as the occurrence of informal, illegal and unrecorded trade, and the difference between reporting standards (for instance, exporting countries report their exports FOB while importing countries report it CIF). Furthermore, an exporting country will register an export the moment goods are loaded in a port, but the importing country registers it once it lands – which can be in a different year from when the goods left.

Due to these measurement issues, many agencies try to reconcile international trade – such as CEPII/BACI. The approach of CEPII/BACI is to make use of so-called mirror data as a check on what countries report as their exports. This is based on the accounting principle that one country's exports are another country's imports, and therefore, what one country reports as its total exports in a year must be equal to what the rest of the world reports importing from it. CEPII/BACI reconciles these reported statistics.

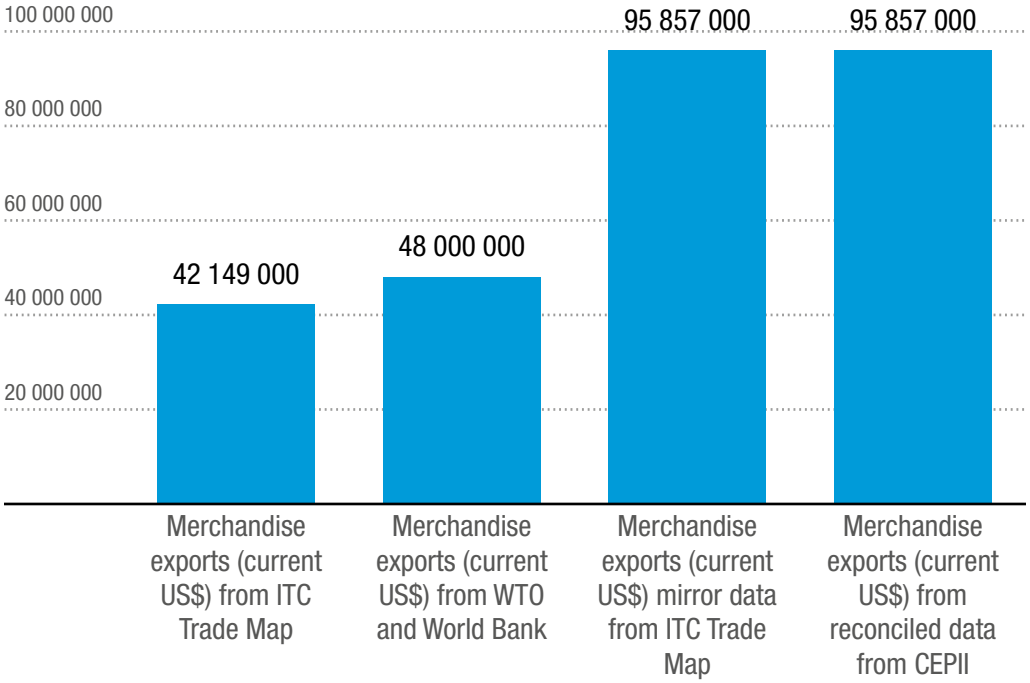
The implication for the present is that when analyzing Cabo Verde's trade data based on the direct reported statistics coming from Cabo Verde's government, there may be – due to these measurement problems – an undercount. Indeed, as analyzed in Appendix B, there is likely a significant undercount of Cabo Verde's exports in the standard numbers. The size and implications of these "missing exports" are analyzed in Appendix B.

Appendix B
Missing exports?

The value and volume of goods exported from Cabo Verde needs to be critically considered. How many goods does Cabo Verde export annually? As shown here, available trade statistics provide different perspectives.

Figure B1 shows three estimates for 2023: a) Merchandise exports published by the ITC in its ITC Trade Map statistics; b) Merchandise exports reported by the World Bank, and based on WTO data; and c) Merchandise exports reported by CEPII/ BACI, also based on UN COMTRADE data.

Figure B1
Different estimates of Cabo Verde's merchandise exports, 2023
(US dollars)



Source: UNCTAD compilation.

Figure B1 shows that, for 2023, the estimates of Cabo Verde's exports differ substantially between sources. The ITC Trade Map's direct method and the WTO/ World Bank numbers are not too far apart – US $43 million and US $48 million, respectively. However, the ITC's mirror method provides an estimate of Cabo Verde's exports that are almost double that of the World Bank and the WTO – around US$ 96 million. This is, however, close to the BACI- CEPII reported merchandise exports for 2023 – around US $92 million.

The differences are thus due to different methods of estimating exports. The BACI-CEPII and ITC mirror method is based on the fact that all exports of goods in the world must equal, as an accounting identity, all imports of goods. Thus, whereas Cabo Verde reports exporting US $43 million in 2023 as per the ITC Trade Map, the rest of the world reports imports from Cabo Verde of US $101 million. It would seem then that there is US $58 million in "missing" exports from Cabo Verde.

To investigate the source of these "missing exports" further, it is instructive

to focus on the exports of Cabo Verde to its major export destinations, such as Spain, Italy, Portugal and the United States, and consider how much Cabo Verde reported exporting to these, and how much these countries reported importing from Cabo Verde in 2023. Such a comparison could be made in both value and volume (quantity) terms.

In 2023, Cabo Verde only exported to 10 countries. Table B1 shows the exports from Cabo Verde to these countries, and the imports by these countries from Cabo Verde. In principle, these should be comparable, with the only difference being the CIF margin, as exports are reported FOB and imports CIF. Major deviations would signal either under-or-over reporting, for various reasons.

Table B1
Cabo Verde's exports, as reported by Cabo Verde and by importing countries, 2023

(Thousands of US dollars)

Export Destination	Cabo Verde's Reported Export Value (thousands US dollars)	Destination's Reported Import Value (thousands US dollars)
Spain	28,894	60,257
Portugal	7,487	11,266
Italy	6,217	11,140
United States	890	6,028
Nigeria	115	58
Cuba	99	99
Malaysia	76	89
Ecuador	48	0
Libya	41	41
Algeria	17	17
Other countries		12,091
TOTAL	**43,884**	**101,086**

Source: UNCTAD compilation.

What can be seen from Table B1 is that all of Cabo Verde's export destinations in advanced economies report importing much larger values of goods than Cabo Verde reports exporting. In the case of the United States, around a third of its imports from Cabo Verde are reported under HS product codes beginning with 99, which are often where confidential trade transactions are recorded. For the developing countries, this is not the case, with the exception of Nigeria, which reports much fewer imports from Cabo Verde than Cabo Verde reports exporting to Nigeria. Moreover, the ITC Trade Map mirror values indicate that there are also "missing countries" in Cabo Verde's reported exports. Around 66 countries reported importing goods from Cabo Verde (total amount US $12 million). However, Cabo Verde did not report exporting to them. These countries, many of them African, are listed in Appendix K. Most notable amongst the missing export countries are India (reporting US $5 million of exports from Cabo Verde) and African countries, as showed in table B2 (which shows missing exports to 16 African countries, worth US $1.3 million).

Table B2
Cabo Verde's Missing African Exports, as Reported by Importing Countries, 2023

(Thousands of US dollars)

African Country	Imports from Cabo Verde
Djibouti	527
South Africa	395
Morocco	144
Ghana	94
Congo, DR	42
Kenya	38
Egypt	20
Namibia	15
Côte d'Ivoire	14
Senegal	14
Gabon	11
Burkina Faso	9
Sao Tome and Principe	5
Gambia	4
Mauritius	2
Zambia	2
TOTAL	1,336

Source: UNCTAD, compilation from ITC Trade Map data.

Most notable in table B1 is the discrepancies in the bilateral trade reported between Cabo Verde and Spain in terms of its sheer size. According to Spain, it imported US $60 million worth of goods from Cabo Verde, although Cabo Verde reports only exporting almost US $29 million to Spain. Hence, about half of Cabo Verde's trade with Spain seems "missing". To consider this further, it is useful to look at physical quantities of goods trade. In this respect, table B3 shows the quantity/volumes of bilateral trade between Cabo Verde and its top three trading partners in 2023.

Table B3
Quantities of exports from Cabo Verde to its top three destinations, 2023

(Tonnes)

	Tonnage Exported to Destination as Reported by Cabo Verde	Tonnage Exported to Destination as Reported by Destination
Spain	7,612	10,367
Italy	465	504
Portugal	504	1,730

Source: UNCTAD, compilation from ITC Trade Map data.

Table B3 shows that in the case of Cabo Verde and Spain, and also with respect to Italy, the differences in exports reported in terms of tonnage is much less than in terms of values - around 2,700 and 39 tonnes, respectively – which translated in value is a US $30 million and US

Appendix C
Cabo Verde's exports and imports per world region, 2017–2022

(US dollars)

	2017	2018	2019	2020	2021	2022
Exports	**94,611,304**	**120,455,211**	**113,526,164**	**105,487,875**	**123,609,402**	**91,929,416**
Africa	4,125,114	412,198	1,681,414	2,268,571	14,316,221	5,271,135
Asia	4,460,114	5,601,886	3,635,745	3,114,462	6,456,972	5,484,134
Caribbean	45,141	10,136	21,982	98,718	43,026	220,063
Central America	18,884	5,164	7,48	511	93,651	264,589
Europe	81,702,955	108,235,298	103,905,631	94,055,754	96,760,612	74,603,154
Middle East	57,366	293,377	357,026	221,474	451,474	288,265
North America	3,689,348	3,687,928	3,763,424	5,334,238	5,340,505	5,581,747
Oceania	240,487	84,564	57,446	50,417	85,809	129,334
South America	271,895	2,124,660	96,016	343,73	61,132	86,995
Import	703,014,839	780,430,581	967,590,054	1,247,824,772	991,422,024	974,320,984
Africa	9,775,957	19,738,198	57,033,769	75,077,390	154,947,829	89,083,267
Asia	101,362,708	114,439,248	113,832,447	140,104,600	138,604,885	115,963,379
Caribbean		2,056,173	538,84	501,618	690,475	571,289
Central America			7,39	581,697	12,533	7,998
Europe	558,198,627	608,199,591	739,873,999	951,302,736	626,200,593	681,074,646
Middle East	422,64	1,738,190	2,946,477	2,050,594	2,139,878	12,084,707
North America	8,915,988	9,191,999	16,401,187	38,987,157	26,574,746	21,790,308
Oceania	74,812		559,738	239,904	8,429,836	139,436
South America	24,264,107	25,067,182	36,396,207	38,979,076	33,821,249	53,605,954
Grand Total	**797,626,143**	**900,885,792**	**1,081,116,218**	**1,353,312,647**	**1,115,031,426**	**1,066,250,400**

Source: UNCTAD, compilation based on CEPII-BACI data. Available at: https://www.cepii.fr/cepii/en/bdd_modele/bdd_modele_item.asp?id=37.

Appendix D
Total exports and imports of Cabo Verde by the skills and technology intensity of the products traded, 2017–2022

(US dollars)

	2017	2018	2019	2020	2021	2022
Export	**94,611,304**	**120,455,211**	**113,526,164**	**105,487,875**	**123,609,402**	**91,929,416**
High skill- and technology intensive manufactures	8,345,787	1,621,905	3,687,387	2,869,580	17,406,413	4,635,513
Low skill- and technology-intensive manufactures	469,407	359,14	754,48	481,042	1,217,988	662,757
Medium skill- and technology intensive manufactures	3,757,903	2,193,614	2,612,493	1,767,159	2,098,964	1,565,893
Mineral fuels	507,268	332,684	746,754	618,947	3,028,210	3,674,609
Non-fuel primary commodities	68,407,929	98,614,603	91,732,639	87,578,744	79,019,814	69,590,635
Resource-intensive manufactures	12,964,356	17,281,561	13,879,519	12,016,290	20,465,266	11,649,845
Unclassified products	158,654	51,704	112,892	156,113	372,747	150,164
Import	**703,014,839**	**780,430,581**	**967,590,054**	**1,247,824,772**	**991,422,024**	**974,320,984**
High skill- and technology intensive manufactures	103,817,797	101,195,958	111,063,223	115,521,256	119,856,793	104,550,784
Low skill- and technology-intensive manufactures	62,598,090	72,454,855	87,118,638	112,233,959	68,704,983	74,307,944
Medium skill- and technology intensive manufactures	141,903,872	173,532,609	215,157,082	236,452,795	287,629,910	158,892,301
Mineral fuels	67,282,991	51,839,912	133,205,774	361,542,475	114,929,661	182,291,154
Non-fuel primary commodities	225,997,722	262,059,984	285,436,626	277,905,592	273,181,156	323,556,489
Resource-intensive manufactures	95,595,210	112,155,750	121,100,084	128,403,714	114,467,291	118,724,664
Unclassified products	5,819,157	7,191,513	14,508,627	15,764,981	12,652,230	11,997,648
Grand Total	**797,626,143**	**900,885,792**	**1,081,116,218**	**1,353,312,647**	**1,115,031,426**	**1,066,250,400**

Source: UNCTAD, compilation based on CEPII-BACI data.Available at: https://www.cepii.fr/cepii/en/bdd_modele/bdd_modele_item.asp?id=37.

Appendix E
Total exports and imports by stage in production, Cabo Verde, 2017–2022

(US dollars)

	2017	2018	2019	2020	2021	2022
Export	**94,611,304**	**120,455,211**	**113,526,164**	**105,487,875**	**123,609,402**	**91,929,416**
Capital goods	9,888,947	2,288,970	3,825,154	3,239,611	18,565,363	5,065,052
Consumer goods	47,242,042	75,212,170	61,129,514	60,206,186	72,635,777	62,033,150
Intermediate goods	28,873,616	35,482,314	41,045,127	35,975,331	21,735,836	13,607,030
Raw materials	8,606,699	7,471,757	7,526,369	6,066,747	10,672,426	11,224,184
Import	**703,014,839**	**780,430,581**	**967,590,054**	**1,247,824,772**	**991,422,024**	**974,320,984**
Capital goods	170,545,759	186,262,479	233,252,911	291,313,686	300,630,325	159,058,831
Consumer goods	259,943,481	307,470,154	318,929,875	293,771,206	298,062,143	319,676,782
Intermediate goods	221,629,707	222,413,630	333,360,077	589,581,686	310,709,046	401,736,939
Raw materials	50,895,892	64,284,318	82,047,191	73,158,194	82,020,510	93,848,432
Grand Total	**797,626,143**	**900,885,792**	**1,081,116,218**	**1,353,312,647**	**1,115,031,426**	**1,066,250,400**

Source: UNCTAD, compilation based on CEPII-BACI data.Available at: https://www.cepii.fr/cepii/en/bdd_modele/bdd_modele_item.asp?id=37.

Appendix F
Cabo Verde's ocean goods trade per UNCTAD's Ocean Economy Classifications, 2017–2022

(US dollars)

	2017	2018	2019	2020	2021	2022
Export	**65,262,824**	**97,205,182**	**90,582,403**	**86,424,992**	**75,154,445**	**67,740,336**
A, Marine fisheries	29,770,143	30,348,367	36,234,984	33,336,512	17,045,798	9,666,918
A, Marine fisheries + B, Aquaculture and hatcheries	24,099				10,479	11,646
A, Marine fisheries + C, Seafood processing						18
C, Seafood processing	34,284,192	63,294,826	51,092,300	49,065,965	54,273,557	52,591,378
D, Sea minerals	3,36	111	28	2,299	416	3,005
E, Ships, port equipment and parts thereof	265,336	828,06	724,179	1,518,204	1,005,172	2,556,868
F, High-technology and other manufactures not elsewhere classified	915,694	2,733,818	2,530,912	2,502,012	2,819,023	2,910,503
Import	99,424,766	108,947,083	130,751,351	166,742,472	94,845,088	99,555,231
A, Marine fisheries	27,394,547	25,179,119	23,934,569	39,983,686	18,713,701	30,404,820
A, Marine fisheries + B, Aquaculture and hatcheries	799,011	1,065,717	1,591,450	355,806	340,851	1,703,956
A, Marine fisheries + B, Aquaculture and hatcheries + C, Seafood processing	89,811	101,487	177,026	67,794	127,194	98,503
A, Marine fisheries + C, Seafood processing			216	443	505	1,405
C, Seafood processing	6,528,555	14,825,523	13,895,656	12,431,841	18,688,311	13,531,550
D, Sea minerals	74,318	291,37	627,276	577,948	325,575	421,74
E, Ships, port equipment and parts thereof	28,134,738	33,352,761	45,812,284	73,182,282	23,932,230	21,982,913
F, High-technology and other manufactures not elsewhere classified	36,403,786	34,131,106	44,712,874	40,142,672	32,716,721	31,410,344
Grand Total	**164,687,590**	**206,152,265**	**221,333,754**	**253,167,464**	**169,999,533**	**167,295,567**

Source: UNCTAD, compilation based on CEPII-BACI data.Available at: https://www.cepii.fr/cepii/en/bdd_modele/bdd_modele_item.asp?id=37.

Appendix G
Cabo Verde's total exports and imports with the Africa region, 2017–2022

(US dollars)

	2017	2018	2019	2020	2021	2022
Exports	**4,125,114**	**412,198**	**1,681,414**	**2,268,571**	**14,316,221**	**5,271,135**
High skill- and technology intensive manufactures	63,412	224,648	195,569	119,269	446,554	1,293,139
Low skill- and technology-intensive manufactures	15,444	5, 077	7,508	4,233	11,504	30,080
Medium skill- and technology intensive manufactures	2,663	28,800	592,041	59,750	20,613	35,829
Mineral fuels	71,579		395,476	443,277	2,844,683	3, 576, 720
Non-fuel primary commodities	3,956,926	142,401	456,763	1,456,778	836,106	303, 411
Resource-intensive manufactures	15,090	11,272	28,549	185,167	10,022,283	31, 064
Unclassified products			5,508	97	134,478	892
Imports	**9,775,957**	**19,738, 198**	**57,033, 769**	**75,077, 390**	**154,947, 829**	**89, 083, 267**
High skill- and technology intensive manufactures	343,650	146,431	3,470,581	3,984,114	4,893,851	4, 083, 347
Low skill- and technology-intensive manufactures	5,578	85,716	388,628	1,220,104	775,628	1, 710, 611
Medium skill- and technology intensive manufactures	7,598, 072	17, 051, 384	41, 099, 292	61, 575, 752	114, 112, 025	4, 879, 106
Mineral fuels	451,024	568, 990	4,483,754	2,530,922	28, 917,111	65, 605, 962
Non-fuel primary commodities	1,120,000	573, 863	3, 844, 669	4, 025, 561	3,168,173	10, 736, 793
Resource-intensive manufactures	257,633	1, 221, 517	3, 710, 490	1, 703, 666	3,074,448	2, 043, 012
Unclassified products		90, 297	36,355	37,271	6,593	24, 436
Grand Total	**13, 901,071**	**20,150, 396**	**58,715, 183**	**77,345, 961**	**169,264, 050**	**94, 354, 402**

Source: UNCTAD, compilation based on CEPII-BACI data. Available at: https://www.cepii.fr/cepii/en/bdd_modele/bdd_modele_item.asp?id=37.

Appendix H
Cabo Verde's ocean goods trade with Africa, as per UNCTAD's Ocean Economy Classifications, 2017–2022

(US dollars)

	2017	2018	2019	2020	2021	2022
Exports	**3,979,754**	**168, 488**	**195,220**	**1,458, 699**	**782, 135**	**542, 482**
A. Marine fisheries	3,956,142	89,368	26,997	874,865	375, 412	60, 140
C. Seafood processing	722	38,979	102,667	465 550	398, 408	94, 947
E. Ships, port equipment and parts thereof	15,253	2,885	54,000	16,188	690	13, 317
F. High-technology and other manufactures not elsewhere classified	7,637	37,256	11,556	102,096	7, 625	374, 078
Imports	**101, 068**	**374, 352**	**1,567, 836**	**2,938, 859**	**1, 445, 926**	**8, 792, 341**
A. Marine fisheries		149, 105	241, 805	971,117	72, 614	6, 516, 407
A. Marine fisheries + B. Aquaculture and hatcheries			49, 266	28,647	3, 787	4, 057
A. Marine fisheries + B. Aquaculture and hatcheries + C. Seafood processing					805	
C. Seafood processing			3,455	1,351	6, 078	14, 396
D. Sea minerals			353,101	356,525	217, 028	277, 048
E. Ships, port equipment and parts thereof		77,903	418,401	1,185, 632	750, 767	1, 435, 851
F. High-technology and other manufactures not elsewhere classified	101,068	147, 344	501, 808	395,587	394, 847	544, 582
Grand Total	4,080,822	542, 840	1,763, 056	4,397, 558	2, 228, 061	9, 334, 823

Source: UNCTAD, compilation based on CEPII-BACI data.Available at: https://www.cepii.fr/cepii/en/bdd_modele/bdd_modele_item.asp?id=37.

Appendix I
Cabo Verde's imports from Senegal, 2023

Product (HS 4)	Value in 2023 US dollars, thousands	Annual growth in value between 2019—2023, %, p.a.
Electrical machinery and equipment and parts thereof; sound recorders and reproducers, television ...	1,021	8
Essential oils and resinoids; perfumery, cosmetic or toilet preparations	1,013	95
Tobacco and manufactured tobacco substitutes; products, whether or not containing nicotine, ...	1,009	2
Wood and articles of wood; wood charcoal	482	83
Beverages, spirits and vinegar	417	62
Nuclear reactors, boilers, machinery and mechanical appliances; parts thereof	406	-15
Coffee, tea, maté and spices	320	147
Vehicles other than railway or tramway rolling stock, and parts and accessories thereof	270	24
Miscellaneous chemical products	226	151
Plastics and articles thereof	202	10
Fish and crustaceans, molluscs and other aquatic invertebrates	181	0
Optical, photographic, cinematographic, measuring, checking, precision, medical or surgical ...	158	21
Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral ...	141	-25
Soap, organic surface-active agents, washing preparations, lubricating preparations, artificial ...	116	74
Products of the milling industry; malt; starches; inulin; wheat gluten	104	-5
Articles of iron or steel	88	2
Footwear, gaiters and the like; parts of such articles	83	34
Prepared feathers and down and articles made of feathers or of down; artificial flowers; articles ...	81	2
Rubber and articles thereof	79	8
Miscellaneous manufactured articles	60	18
Articles of stone, plaster, cement, asbestos, mica or similar materials	57	54

Product (HS 4)	Value in 2023 US dollars, thousands	Annual growth in value between 2019—2023, %, p.a.
Articles of apparel and clothing accessories, not knitted or crocheted	53	27
Articles of apparel and clothing accessories, knitted or crocheted	51	34
Miscellaneous edible preparations	47	51
Edible fruit and nuts; peel of citrus fruit or melons	44	13
Preparations of cereals, flour, starch or milk; pastrycooks' products	40	79
Edible vegetables and certain roots and tubers	31	134
Paper and paperboard; articles of paper pulp, of paper or of paperboard	24	161
Furniture: bedding, mattresses, mattress supports, cushions and similar stuffed furnishings; ...	24	91
Other made-up textile articles; sets; worn clothing and worn textile articles; rags	22	-2
Sugars and sugar confectionery	22	57
Tools, implements, cutlery, spoons and forks, of base metal; parts thereof of base metal	18	59
Articles of leather; saddlery and harness; travel goods, handbags and similar containers; articles ...	17	26
Printed books, newspapers, pictures and other products of the printing industry; manuscripts, ...	14	-28
Oil seeds and oleaginous fruits; miscellaneous grains, seeds and fruit; industrial or medicinal ...	13	84
Works of art, collectors' pieces and antiques	10	249
Toys, games and sports requisites; parts and accessories thereof	9	-1
Live trees and other plants; bulbs, roots and the like; cut flowers and ornamental foliage	8	25
Glass and glassware	8	0
Cotton	6	5
Natural or cultured pearls, precious or semi-precious stones, precious metals, metals clad ...	5	23
Railway or tramway locomotives, rolling stock and parts thereof; railway or tramway track fixtures ...	5	
Miscellaneous articles of base metal	4	5
Aluminium and articles thereof	4	85
Musical instruments; parts and accessories of such articles	4	-1

Product (HS 4)	Value in 2023 US dollars, thousands	Annual growth in value between 2019—2023, %, p.a.
Headgear and parts thereof	4	32
Cereals	4	63
Animal, vegetable or microbial fats and oils and their cleavage products; prepared edible fats; ...	4	-28
Preparations of vegetables, fruit, nuts or other parts of plants	4	-38
Albuminoidal substances; modified starches; glues; enzymes	4	9
Organic chemicals	3	51
Pharmaceutical products	3	6
Dairy produce; birds' eggs; natural honey; edible products of animal origin, not elsewhere ...	3	53
Clocks and watches and parts thereof	3	56
Umbrellas, sun umbrellas, walking sticks, seat-sticks, whips, riding-crops and parts thereof	2	153
Iron and steel	2	887
Man-made staple fibres	2	-14
Manufactures of straw, of esparto or of other plaiting materials; basketware and wickerwork	1	-19
Man-made filaments; strip and the like of man-made textile materials	1	46
Impregnated, coated, covered or laminated textile fabrics; textile articles of a kind suitable ...	1	21
Inorganic chemicals; organic or inorganic compounds of precious metals, of rare-earth metals, ...	1	99
Cocoa and cocoa preparations	1	231
Copper and articles thereof	1	2

Source: UNCTAD, compilation based on data from ITC's Trade Map.

Appendix J
Cabo Verde's imports from Morocco, 2023

Product	Value in 2023 US dollars, thousand	Annual growth in value between 2019—2023, %, p.a.
Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral ...	2,078	8
Sugars and sugar confectionery	596	128
Salt; sulphur; earths and stone; plastering materials, lime and cement	320	-8
Nuclear reactors, boilers, machinery and mechanical appliances; parts thereof	230	0
Coffee, tea, maté and spices	117	40
Optical, photographic, cinematographic, measuring, checking, precision, medical or surgical ...	91	105
Vehicles other than railway or tramway rolling stock, and parts and accessories thereof	79	2
Miscellaneous chemical products	62	2
Articles of apparel and clothing accessories, knitted or crocheted	49	63
Paper and paperboard; articles of paper pulp, of paper or of paperboard	45	-3
Electrical machinery and equipment and parts thereof; sound recorders and reproducers, television ...	37	-4
Beverages, spirits and vinegar	36	-26
Plastics and articles thereof	28	-14
Articles of apparel and clothing accessories, not knitted or crocheted	16	30
Footwear, gaiters and the like; parts of such articles	15	-7
Other made-up textile articles; sets; worn clothing and worn textile articles; rags	14	-27
Fertilisers	13	
Articles of iron or steel	9	12

Product	Value in 2023 US dollars, thousand	Annual growth in value between 2019—2023, %, p.a.
Essential oils and resinoids; perfumery, cosmetic or toilet preparations	8	-59
Preparations of cereals, flour, starch or milk; pastrycooks' products	8	-68
Edible fruit and nuts; peel of citrus fruit or melons	4	-29
Carpets and other textile floor coverings	4	-8
Albuminoidal substances; modified starches; glues; enzymes	3	-3
Articles of leather; saddlery and harness; travel goods, handbags and similar containers; articles ...	3	-9
Headgear and parts thereof	3	83
Edible vegetables and certain roots and tubers	3	100
Glass and glassware	2	-57
Aluminium and articles thereof	2	10
Tools, implements, cutlery, spoons and forks, of base metal; parts thereof of base metal	2	-32
Furniture: bedding, mattresses, mattress supports, cushions and similar stuffed furnishings; ...	2	19
Miscellaneous articles of base metal	1	182
Impregnated, coated, covered or laminated textile fabrics; textile articles of a kind suitable ...	1	154
Animal, vegetable or microbial fats and oils and their cleavage products; prepared edible fats; ...	1	-25
Tanning or dyeing extracts; tannins and their derivatives; dyes, pigments and other colouring ...	1	101
Rubber and articles thereof	1	-12

Source: UNCTAD, compilation based on data from ITC's Trade Map.

Appendix K
Missing countries: Cabo Verde's undeclared exports to countries who declared imports from Cabo Verde, 2023

(US dollars, thousand)

Country	Reported imports from Cabo Verde in 2023	Country	Reported imports from Cabo Verde in 2023
India	5,750	Côte d'Ivoire	14
Denmark	969	Senegal	14
Singapore	955	Barbados	13
Chile	617	Gabon	11
Djibouti	527	Czech Republic	10
France	504	Macao, China	10
Netherlands	419	Dominican Republic	9
South Africa	395	Japan	9
United Kingdom	334	Burkina Faso	9
Greece	249	Colombia	8
Canada	157	El Salvador	7
Morocco	144	Ukraine	6
Belgium	106	Australia	5
Ghana	94	Finland	5
Germany	77	Sao Tome and Principe	5
China	72	Korea, Republic of	4
Brazil	58	Gambia	4
Austria	57	Ireland	4
Poland	52	Pakistan	3
Congo, DR	42	Serbia	3
New Zealand	39	Slovenia	3
Kenya	38	Bahrain	2
Cyprus	36	Sri Lanka	2
Cambodia	35	Hungary	2
Slovakia	29	Iceland	2
Peru	28	Mauritius	2
Mexico	24	Zambia	2
Sweden	22	Bosnia and Herzegovina	1
Egypt	20	Costa Rica	1
Indonesia	19	Croatia	1
Luxembourg	19	Israel	1
Namibia	15	Taipei, Chinese	1
Thailand	15	Philippines	1

Source: UNCTAD compilation.

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