

Morocco's blue economy: status and prospects

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Abstract— The blue economy is an important economic and geostrategic pillar in Morocco's sustainable development. This article focuses on both a retrospective and prospective analysis of our country's blue economy. It examines key maritime and coastal activities such as fishing, aquaculture, seawater desalination, maritime tourism and maritime transport. The study describes the potential and challenges of the various sectors in question. It is important to emphasize that Morocco does not have a sustainable blue economy strategy, but rather sectoral strategies. Like other countries, the implementation of such a strategy will help boost the country's sustainable development, and enhance and further exploit the potential of key emerging sectors such as biotechnologies and marine renewable energies.

Keywords— Blue economy, Morocco, Retrospective analysis, Prospective analysis.

I. INTRODUCTION

The oceans are a treasure trove for mankind, thanks to their wealth of resources and biodiversity, as well as their contribution to many human services. They provide humanity with food security through the varied products of fishing and aquaculture. In addition, they play a central role in regulating the Earth's climate by producing oxygen for the atmosphere and absorbing carbon dioxide.

In recent decades, mankind has become increasingly aware of the need to protect the oceans from the negative externalities resulting from human activities (Golden et al., 2017). In addition, increasing importance is being attached to the economic value of the oceans and the activities of the marine industry. (Ehlers, 2016).

In this context, the concept of the « blue economy » was first developed by Gunter Pauli in 1990, at the United Nations Conference in Rio in 1992. The United Nations report integrated the sustainable development principles of the green economy in a blue world (United Nations, 1993).

The blue economy could contribute around three trillion dollars to the global economy by 2030 through appropriate strategies in emerging sectors such as offshore wind energy, aquaculture, and marine biotechnology to stimulate economic growth and generate jobs (OECD, 2016).

Thanks to its privileged geographical position, Morocco has been able to exploit the opportunities offered by its vast maritime expanses to contribute to economic growth and promote sustainable development. This is because the exploitation of ocean resources and coastal activities accounts for 59% of gross domestic product (GDP). As a result, the blue economy is an engine for sustainable growth that will continue to shape the country's future. Maritime activities such as fishing, aquaculture, coastal tourism, maritime transport and seawater desalination are key sectors in Morocco's blue economy. The latter is also concerned with protecting the marine environment and preserving biodiversity. By combining economic growth with environmental preservation, Morocco's blue economy will make a major contribution to achieving certain sustainable development goals (SDGs) by 2030.

In this article, we will attempt to analyze current trends in Morocco's blue economy through the various sectors that make it up, such as fishing and marine aquaculture, coastal tourism, maritime transport and seawater desalination. We will then examine future options for its development.

II. THEORETICAL BACKGROUND

Since the 90s, the world has seen the emergence of a new concept that has become increasingly popular as a strategy for safeguarding the oceans, known as the « Blue Economy ». The blue economy concept is linked to other concepts such as: ocean economy, sea economy, maritime economy, fishing economy, and blue growth. Its birth and evolution can be traced back to the economist Gunter Pauli, who initiated the concept of the Blue Economy (Pauli, 2010).

The « Blue Economy » concept has many definitions by different institutions, but its purpose is the same. It emerged from the United Nations Conference on Sustainable Development (UNCSD) held in Rio de Janeiro in 2012. It's a concept that aims to bring together all economic activities directly dependent on the ocean or coastal and marine resources. The United Nations has proposed a general definition of the blue economy as an ocean economy that aims to improve human well-being and social equity, while significantly reducing environmental risks and ecological scarcity (United Nations, 2014).

For example, the World Bank has defined the blue economy as the sustainable use of ocean resources for economic growth, improved livelihoods and jobs while preserving the health of the ocean ecosystem (World Bank, 2017).

The blue economy is based on the principles of the circular economy, aiming to minimize pollution, promote sustainable production and consumption patterns, and be resource-efficient (Pauli, 2019).

The blue economy is based on three lines of thought and action. First, consume and use locally available resources. Second, generate added value rather than waste, reinvesting materials wherever possible. Finally, to meet society's needs, including happiness, resilience and health (Plan Bleu, 2016).

The blue economy therefore aims to create better conditions for the sustainable development of the oceans. The balance between the three pillars of sustainable development, as a key element of the sustainable blue economy, can only be achieved through good governance of all maritime and coastal activities.

III. RESEARCH METHODOLOGY

The research methodology adopted for this study includes both quantitative and qualitative approaches, based on the construction of « variable sheets ». The variable sheets were drawn from a variety of data sources, including government reports, economic databases and sectoral statistics. The aim is to analyze sustainable development indicators for the blue economy, and to consider future prospects.

It is structured in two stages. The first stage is a retrospective analysis of the period from 2012 to 2022. It employs content analysis to extract relevant information from the various sources. The key themes identified were: fisheries and marine aquaculture, coastal tourism, maritime transport and seawater desalination. The use of variable sheets helped structure our analysis.

The second stage is the prospective analysis to 2030. It is based on past trends in order to extrapolate future developments, while taking into account the various policies underway and possible environmental and economic changes in Morocco's sustainable blue economy.

Data collection was based on reports from government agencies and research institutions. The reports concern institutions in key sectors of the blue economy in Morocco, such as the National Agency for Ports (l'Agence Nationale des Ports (ANP)), the Department of Maritime Fishing (Département de la pêche maritime (DPM)) of the Ministry of Agriculture and Maritime Fishing (Ministère de l'agriculture et de la pêche maritime), the National Institute for Fisheries Research (l'Institut National

des Recherches Halieutiques (INRH)), National Aquaculture Development Agency (l'Agence Nationale de Développement d'Aquaculture (ANDA)), Tourism Observatory (l'Observatoire du Tourisme (OT)), High Commission for Planning (le Haut-Commissariat au Plan (HCP)), Ministry of Energy Transition and Sustainable Development (Ministère de Transition Énergétique et de Développement Durable (MTEDD)), Cherifian Phosphate Office (l'Office Chérifienne des Phosphates (OCP)).

IV. RESULTS AND DISCUSSIONS

We will first present and discuss the retrospective analysis and then the prospective analysis of the main maritime and coastal activities of the blue economy.

1. Retrospective analysis of the blue economy

The retrospective analysis will focus on the main maritime and coastal activities of the blue economy: fishing, aquaculture, seawater desalination, maritime tourism and maritime transport.

A. Retrospective analysis of the fishing sector

With 3500 km of coastline, the marine fishing sector contributes 2% of GDP. Fish production reached 1.55 million tonnes in 2022 (equivalent to 1% of world fish production), with a value of around 13,7 billion MAD. It also generates export sales of 29,6 billion MAD and 128 912 direct jobs. The sector mobilizes an operational fleet of 19 064 units, including 334 in deep-sea fishing, 1 800 in coastal fishing and 17 130 in artisanal fishing.

Morocco has seen an increase in the volume of national fish production over the last 10 years. Fisheries resources are exploited by three fishing fleets: the deep-sea fleet, the inshore fleet and the artisanal fleet.

Total national fisheries production grew steadily over the period studied, with an average annual increase of 12,32%. This indicates an expansion of fishing activity in the country. This trend can be explained by the strong increase in the volume of deep-sea fishing production, which grew by 45% over the period from 2012 to 2022. This performance is due to the establishment of development plans for all national fisheries.

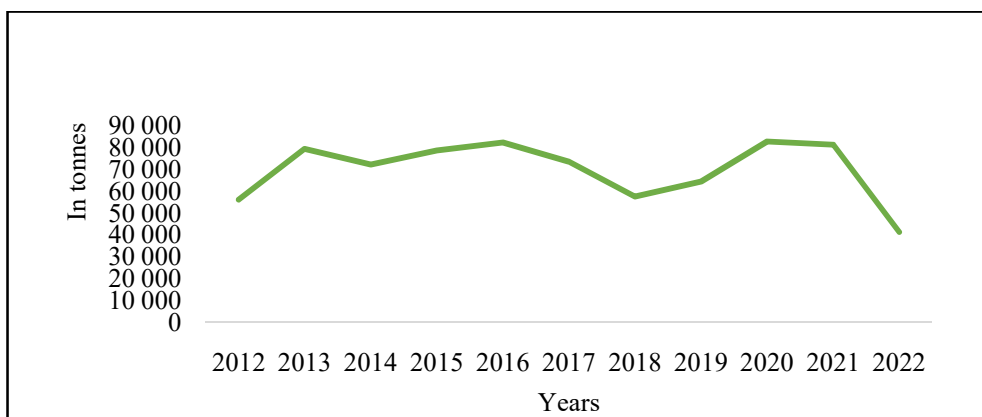


Figure 1: Evolution of deep-sea fishing catches, in tonnes, from 2012 to 2022

Source: Based on reports from Moroccan Marine Fisheries Department, Mer en Chiffres.

Inshore and artisanal fishing represent the predominant share of production, contributing an average of around 92,7% of total production over the period. Despite annual fluctuations, this category maintains an upward trend. This reflects not only the expansion and development of the fishing industry, but also increased efforts to improve fishing techniques, the sustainable management of fishery resources, and the optimization of value chains in the sector.

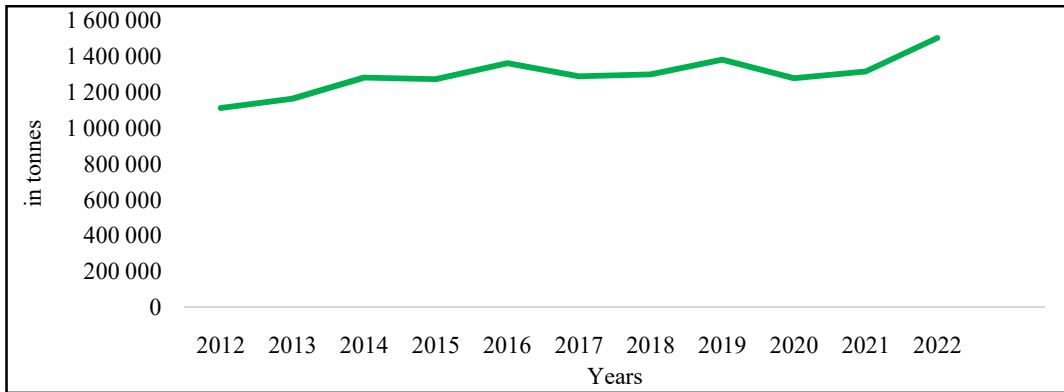


Figure 2: Inshore and artisanal fishing catches, in tonnes, from 2012 to 2022

Source: Based on reports from Moroccan Marine Fisheries Department, Mer en Chiffres.

B. Retrospective analysis of the aquaculture sector

Against a backdrop of overexploitation of fishery resources, aquaculture has become an essential solution for satisfying the growing demand for seafood products.

Aquaculture has generated an economic value of around 100 million dirhams and an aquaculture production of 1 439 tonnes in 2022. Over the period 2012-2022, aquaculture production rose by 248% in volume and 154% in value, thanks to two sites, M'diq and Baie de Dakhla. Shellfish farming is the most important branch, accounting for around 75% of total aquaculture production, with mussels, oysters and clams. Fish farming is limited to a single species: wolffish. It represents 13% of total aquaculture production. On the other hand, the third branch, seaweed farming, contributes 12% of total production. It is still underdeveloped, but has great potential. This modest achievement is attributable to the creation of the National Aquaculture Development Agency (ANDA) in 2011 and its subsequent action plan in 2012 for the development of aquaculture, integrating legal aspects, aquaculture planning and investment offers. Not to mention the tax incentives introduced in 2018 to enhance the sector's competitiveness and attractiveness.

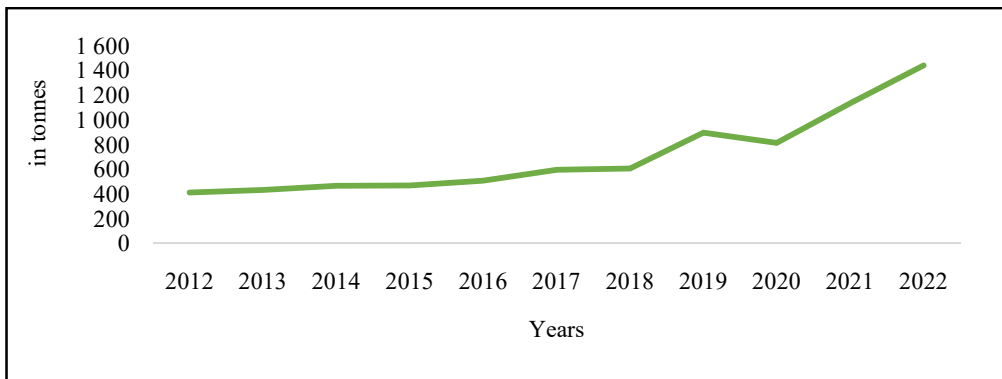


Figure 3: Aquaculture production trends in tonnes from 2012 to 2022

Source: Based on reports from Moroccan Marine Fisheries Department, Mer en Chiffres.

C. Retrospective analysis of the seawater desalination sector

Worldwide, salt water accounts for 97% of all water on earth. This abundance makes seawater desalination the only option for ensuring water supply in shortage situations.

For decades, Morocco has periodically experienced a critical water situation due to drought, low dam-fill rates, falling groundwater levels and increasing water demand. In addition, seawater desalination is a technique for producing water. This water is then distributed to households, industry (notably for the production of phosphate derivatives) and farmers.

Morocco currently has 15 desalination plants with a total capacity of 192 million cubic meters per year, of which 61,2 million cubic meters per year are produced by the Cherifian Phosphate Office (OCP). The environmental impacts of seawater desalination projects are thus relatively concentrated and/or amplified on the Mediterranean coast. On the other hand, they are minimal on the Atlantic coast, due to the oceanic dilution effect. In addition to the fact that almost all desalination plants in Morocco operate with reverse osmosis systems, they have the smallest environmental footprint compared with other desalination techniques. However, all these projects have a significant impact on energy consumption (INRH, 2023).

To ensure the sustainability of irrigation in certain agricultural basins and the development of new basins, Morocco has also opted to use seawater desalination for irrigation. This initiative is reflected in the Chtouka desalination project, which will irrigate 15 000 hectares of farmland.

Over the period from 2012 to 2022, we see an upward trend in the level of installed seawater desalination capacity, rising from 63 500 m³ per day in 2012 to 479 500 m³ in 2022.

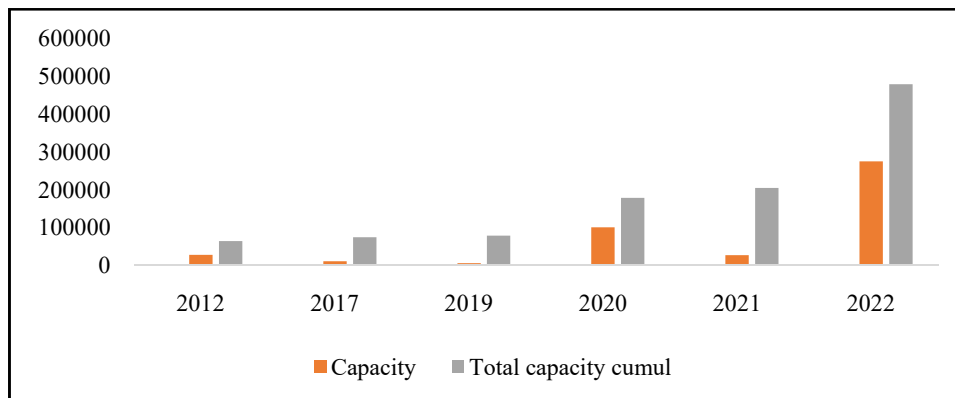


Figure 4: Seawater desalination capacity in m³/per day from 2012 to 2022

Source: Based on data from the HCP

D. Retrospective analysis of the marine tourism sector

This retrospective analysis highlights the growth of the tourism sector in Morocco over the period studied. Tourism output, value added, taxes generated and tourism GDP have all increased, indicating the sector's growing economic importance in the Moroccan economy. These figures testify to the country's attractiveness as a tourist destination and the effectiveness of its tourism development policies.

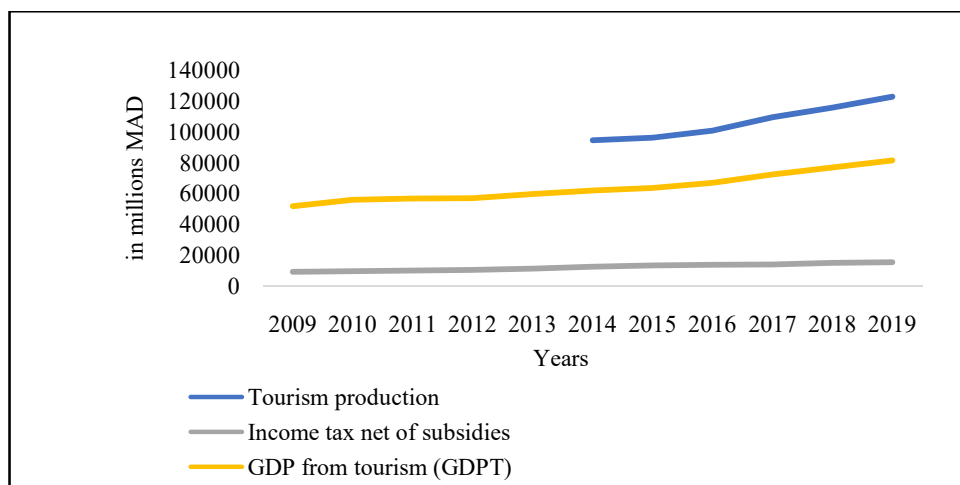


Figure 5: Evolution of tourism indicators (in millions MAD) from 2009 to 2019

Source: Based on data from the Tourism Satellite Account and the HCP

Blue tourism (coastal and marine) in Morocco saw significant growth between 2010 and 2020, with notable increases in various segments. Beach and resort tourism, for example, recorded sustained growth. Popular beaches such as Agadir, Essaouira and Saadia have seen significant increases in visitor numbers. In Agadir, the number of tourists rose by 25% between 2010 and 2019, while hotel capacity expanded from 150 to 250 establishments. This growth is also reflected in average tourist spending, which has risen thanks to improved services and infrastructure. At the same time, cruise and yachting tourism has also expanded significantly. The ports of Casablanca and Tangiers welcomed a growing number of cruise passengers, from 300 000 in 2010 to 500 000 in 2019. This growth has been underpinned by major investments in port infrastructure, to accommodate larger cruise ships and offer better facilities for tourists. In addition, the number of marinas and yachting services increased from 5 to 12 operational marinas, contributing to the growing popularity of yachting activities.

As far as marine ecotourism is concerned, marine protected areas (MPAs) offer an ideal framework for its development. MPAs are marine areas demarcated and managed with the aim of conserving and sustainably managing fishery resources. They can take different forms, such as national marine parks, marine reserves and marine sanctuaries. In addition, they help to reduce poverty, consolidate food security, create jobs, attract tourists and protect coastal communities.

MPAs for fishing purposes (category 6 according to the International Union for Conservation of Nature) are designed to be both a means of regulating fishing effort and a tool for protecting endangered species and ecologically sensitive areas. It plays a central role in achieving Target 11 of the Aichi Biodiversity Targets.

Morocco has a total marine area of 564 610 km² (up to the limit of the exclusive economic zone). The MPA-Fisheries network comprises three pilot MPAs (Alboran MPA, Massa MPA and Mogador MPA) and covers a total area of 750 km².

The Alboran MPA is located in the Alboran Sea and covers an area of 34 000 km². Created in 2006, it is Europe's first cross-border MPA. The MPA is a popular site for tourism, including diving, birdwatching and sport fishing. The Mogador MPA is located on the Atlantic coast between the towns of Safi and Essaouira. The Massa MPA is located on Morocco's southern coast, between the towns of Agadir and Tiznit. It was created in 2005 and covers an area of 200 km², of which 50 km² is a no-fishing zone.

Following growing interest in responsible and sustainable tourism, stakeholders such as the Mohammed VI Foundation have set up conservation and awareness-raising programs to improve the sustainable management of MPAs and increase visitor numbers through educational activities and guided tours.

E. Retrospective analysis of the shipping industry

Port trade is a key factor in the efficiency of the global economy. Maritime transport, an essential pillar of the supply chain, accounts for a major share of goods transport. Its good governance plays a decisive role in a country's economic dynamism.

In Morocco, maritime transport and logistics have been a strategic priority over the past two decades. The country currently has 14 of its 43 ports open to international trade. They handle over 96% of foreign trade and connect the country to 80 countries and 180 ports worldwide, ranking the Kingdom 20th in the world in terms of maritime connectivity.

Ports handle the transshipment of goods, support handling operations, and offer comprehensive logistics services. They also provide essential services for ships, such as repair and mooring.

Seaports are managed by two port authorities: the National Agency of Ports (ANP) and the Tanger Med Port Authority. Tanger Med accounts for 50% of the total tonnage handled by all Moroccan ports.

The retrospective analysis of maritime transport will focus on two variables: passenger traffic and freight traffic. Figure 6 shows the evolution of passenger traffic in several port cities, including the Moroccan ports managed by the National Agency of Ports and the Tanger Med Special Agency, between 2012 and 2022. Overall, passenger traffic grew steadily from

2012 to 2019, reaching its peak in 2019 with a total of 5 320 276 passengers in the ports managed by the National Agency of Ports (ANP) and the Spécial Agency Tanger Med. Following the Covid-19 health crisis, passenger traffic suffered a shock, leading to a sharp drop in the number of passengers nationwide. During the pandemic, access to Moroccan ports was suspended for all passenger, cruise and pleasure ships, resulting in 302 332 passengers transiting through Moroccan ports, a sharp 87,1% drop compared with 2019. However, in 2022, passenger traffic recovered significantly, reaching a level close to those observed before the pandemic.

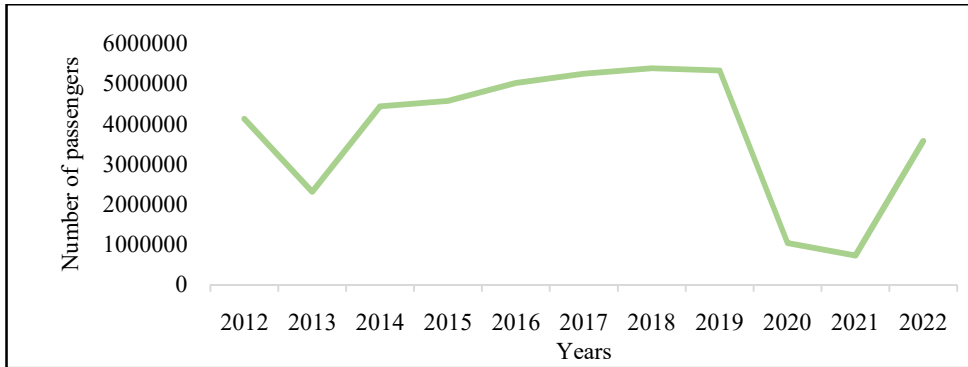


Figure 6: Passenger traffic between 2012 - 2022

Source: Based on ANP data

The retrospective analysis of Moroccan port traffic is based on an analysis of ANP-managed ports (Figure 7) and the port of Tanger Med (Figure 8). Firstly, the traffic of ANP-managed ports reveals varying trends by cargo category over the period 2012-2022. While solid bulk traffic has seen a slight recent decline, container traffic has continued to grow significantly. The number of ro-ro ships and the tonnage of international road transport have also increased over time, while the number of passengers has decreased. In 2022, Moroccan ports managed by ANP handled a total traffic of 88 477 714 tonnes, compared with 72 145 646 tonnes in 2012, representing a slight increase of 22,63%.

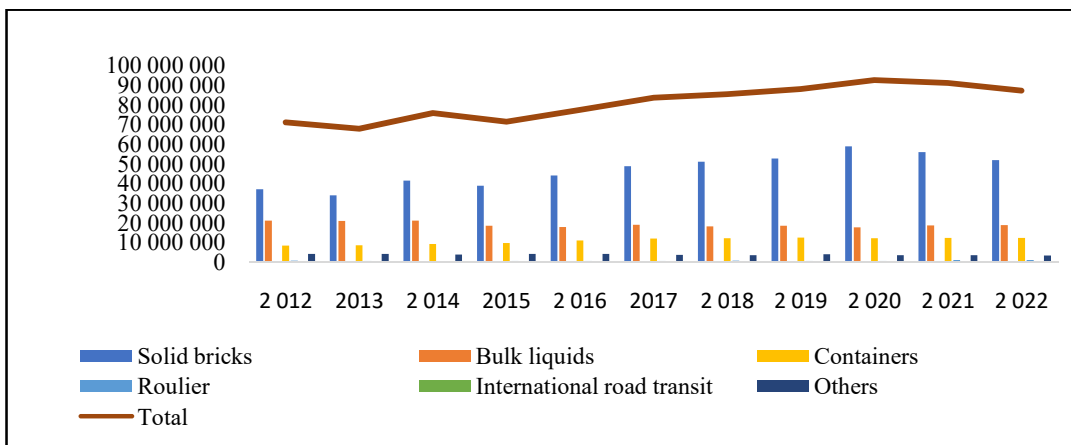


Figure 7: Evolution of ANP-managed port traffic between 2012-2022

Source: Based on ANP data

The port of Tanger Med has recorded significant trends in national port traffic, as a leader in containerized traffic, liquid bulk, vehicles and general cargo. Between 2012 and 2022, the evolution of port traffic transiting through Tanger Med was marked by strong growth, with a total rate of increase of 86%, rising from 20 069 548 tonnes in 2012 to 144 332 702 tonnes in

2022. Connecting Morocco with European countries by sea, container or TIR trailer, the port of Tanger Med operates regular lines through several shipping companies, serving nearly 174 ports and 74 countries on 5 continents.

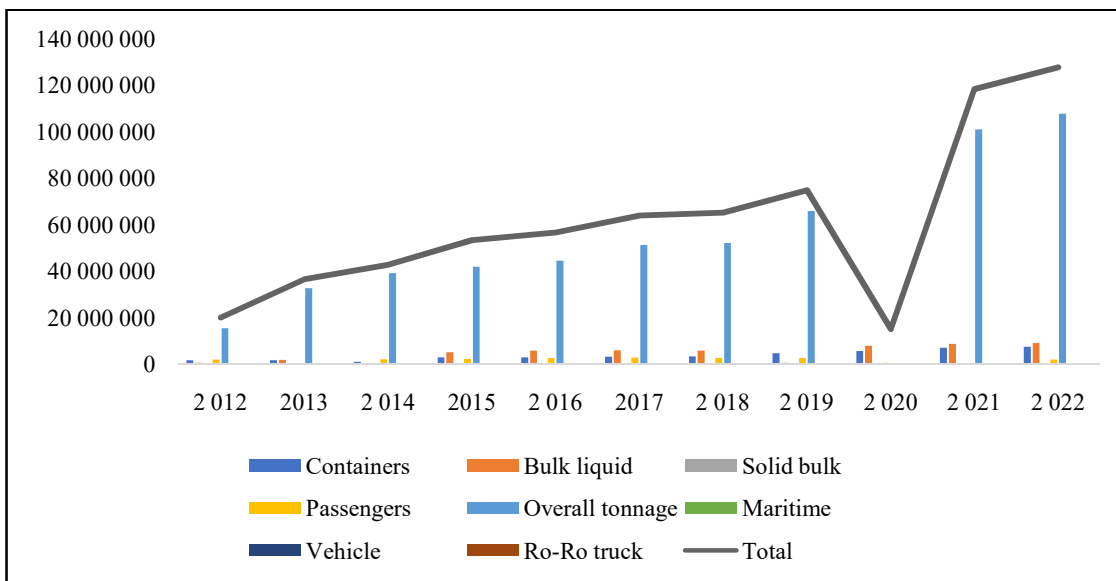


Figure 8: Tanger Med port traffic evolution between 2012-2022

Source: Based on Tanger Med Port Authority data

2. The blue economy's future prospects

The analysis of future prospects will focus on the main maritime and coastal activities of the blue economy: fishing, aquaculture, seawater desalination, maritime tourism and maritime transport.

A. Outlook for the fishing sector

The conservation and sustainable use of marine and coastal ecosystems requires more sustainable resource management, the fight against overfishing, overcapacity and illegal fishing, and the acceleration of scientific research and technology transfer to strengthen ecosystem resilience and minimize ocean acidification. Morocco foresees significant growth potential in the fishing sector through the transition to more sustainable fishing, by adopting innovative technologies and strengthening fisheries planning and management policies.

B. Aquaculture outlook

With a view to reducing fishing pressure on fishery resources and diversifying marine food products, aquaculture products are emerging as a promising alternative. The aquaculture sector will be an important lever for socio-economic and regional development. Morocco's long coastline and favorable climate mean that its potential for aquaculture development is high, but as yet under-exploited. It has put in place an aquaculture development strategy aiming to achieve production of 200 000 tonnes per year by 2030. This vision will be implemented through the National Agency for the Development of Aquaculture (ANDA). It will involve the implementation of regional aquaculture development plans covering 66% of the national coastline and identifying opportunities for fish, shellfish and seaweed farming over a total area of 24 000 hectares.

A total of 441 private projects and aquaculture farms are in the approval phase, with a target production capacity of over 300000 tonnes per year in the long term, allocating over 50% of the areas identified by the aquaculture development plans. These projects represent 785 aquaculture plots over a sea area of more than 14 000 hectares, and will require an investment of around 5 billion dirhams. They are expected to create over 7 000 direct jobs. The Dakhla-Oued Eddahabi region dominates

with 304 projects, followed by Souss Massa, Oriental, Marrakech-Safi and other regions. ANDA is also working on the development of integrated aquaculture clusters to support the sustainable growth of the sector in the face of its challenges.

C. *The outlook for seawater desalination*

To tackle the freshwater shortage, Morocco is planning a series of strategic measures to increase water supply. Seawater desalination is one of the most strategic of these measures.

Five plants are currently under construction and should add an additional production capacity of 138,3 million cubic meters per year, of which OCP will produce 98 million cubic meters per year.

By 2030, 16 desalination plants are planned, with an additional capacity of 1490 million cubic meters per year, of which 410 million cubic meters per year will be produced by OCP. To achieve this level of production, the Kingdom has committed to an additional six-year timeframe, and to powering the future plants with renewable energy. Among the projects planned is the future Casablanca seawater desalination plant. It will be operated under a 30-year concession, as part of a public-private partnership with the National Electricity and drinking Water Office (ONEE). It will require an investment of 6,5 billion MAD. From the end of 2026, the plant will be able to treat up to 548 000 m³ of water per day, a capacity that can be extended to 822000 m³ per day from mid-2028. This output will meet the high demand in Casablanca, Settat, Berrechid, Bir Jdid and surrounding areas.

By 2030, Moroccans are expected to consume 50% of their drinking water thanks to desalination. Morocco has also opted to use seawater desalination to ensure the sustainability of irrigation in certain agricultural basins and the development of new basins. In fact, the majority of projects to create irrigated areas are directly derived from seawater desalination initiatives, in particular the new areas associated with desalination plants in Casablanca, Oriental, Oualidia and Dakhla.

To ensure the sustainability of the seawater desalination sector, scientific research and innovation will be essential, with a nexus approach to water-energy-power. In addition, from 2025 onwards, Morocco will need to introduce tax and customs provisions and incentives to encourage companies, especially small and medium-sized enterprises, to invest in this nascent industry.

D. *Outlook for the coastal and marine tourism sector*

Looking ahead to 2030, the outlook for coastal and marine tourism in Morocco is promising. Attendance at seaside resorts is expected to continue to grow, supported by ongoing investment in infrastructure and international promotion. Diversifying tourism offerings and improving services will be essential to maintain this growth. Moroccan seaside destinations, with initiatives aimed at attracting more international tourists, should see a continued increase in visitor numbers.

Cruise and yachting tourism is also expected to expand significantly. With ongoing improvements to port infrastructures and the promotion of new cruise routes, the number of cruise passengers is expected to reach 1 million by 2030, with the Beach & Sun theme offering reaching 2,9 million by 2026 and 5 million by 2030, while the number of tourists interested in board sports (the Ocean Waves theme) is expected to reach 1,1 million by 2030. Yachting should benefit from increased investment in marinas and associated services, boosting the popularity of yachting activities among local and international tourists.

Marine ecotourism is expected to grow strongly, with increasing awareness and demand for sustainable tourism experiences. Marine protected areas will become key destinations for environmentally conscious tourists, thanks to ongoing conservation efforts and the promotion of responsible tourism practices.

E. Prospects for maritime transport

In order to develop the maritime transport sector, Morocco has implemented ongoing national sectoral policies to contribute to the country's economic and social development. The development of the hub concept for containers and bulk goods, and a greater opening up of the Moroccan economy to the American continent, the Maghreb and the Mediterranean basin could create numerous national and international opportunities. This would require significant investment and the reservation of space for port development.

Passenger traffic is expected to fluctuate and change, with notable growth in the ports of Nador and Tangier-City, and the creation of the new port of Dakhla. In terms of goods traffic, there will be an increase in container traffic and a transition to cleaner fuels, such as natural gas and green hydrogen, in the maritime sector to promote sustainable shipping.

By 2023, Morocco will have 17 merchant vessels, 6 passenger ships and 11 cargo ships. This fleet only covers around 10% of national needs. In addition, Morocco will consider the modernization of the national merchant fleet as a priority. At the same time, a number of port projects are underway along the country's coastline, including the ports of Nador West Med, Dakhla and El Jebha. The progress and cost of port projects in Morocco are described in the table below:

<i>Projects</i>	<i>Budget</i>	<i>Duration of work</i>	<i>State of progress</i>
Enlargement of El Jebha port	254 million MAD	2022-2025	26%
Nador, West Med	11,56 billion MAD	2016-2024	93%
Widening of the Moulay Youssef barrier in Casablanca	1,1 billion MAD	2022-2025	23%
New port of Safi (2nd phase)	4,1 billion MAD	2023-2025	--
New phosphate port of Laayoune	6 billion MAD	--	--
Dakhla port	12,65 billion MAD	2021-2029	10%
Lamhiriz fishing port	128 million MAD	2022-2024	35%

Source: Data collected from the Ministry of Equipment and Water

Tanger Med is also consolidating its position as the largest port in the Mediterranean. To meet the challenges of the future, the development of the Tangier Med port will be accompanied by the creation of a robust industrial ecosystem. To this end, the expansion of industrial zones from 2 500 to 5 000 hectares will attract more investors in high value-added industries.

As part of its port strategy for 2030, Morocco is committed to decarbonizing maritime transport and developing six maritime port competitiveness clusters, each focusing on a specific field. By focusing on innovation and sustainable development, the performance of Morocco's port infrastructure network will be enhanced.

Based on these retrospective and prospective analyses of the blue economy's main marine and coastal activities, we can see that Morocco is lagging behind in implementing a sustainable blue strategy. However, accelerating this process will ensure effective spatial governance and close coordination between the various sectoral strategies and cross-cutting stakeholders (Reimer et al., 2023). The success of this strategy will require the mobilization of innovative financial resources, both public and private, as well as the development of public-private partnerships to support marine ecosystem protection, sustainable blue economy development, and technological innovation (Golden et al., 2017 ; Jouffray et al., 2020 ; Bosmans and De Mariz, 2023). In addition, capacity-building for local players in the blue economy will be a priority. Aligning stakeholders with the sustainable blue economy strategy will require the development of locally anchored guidelines (by region). To this end, it is vital that civil society plays an active role in raising awareness of environmental issues and introducing sustainable best

practices. Similarly, the creation of maritime clusters and/or regional observatories will help to raise awareness and effectively involve stakeholders in a forum for consultation and proposals for development and innovation.

Emerging sectors, such as maritime biotechnology and marine renewable energies (Hariss et al. 2020), will require an ecosystem that is conducive to their development.

V. CONCLUSION

Morocco has committed itself to promoting and supporting the maritime and coastal activities of the blue economy by putting in place an important but inconsistent political and strategic framework. Sectoral policies, environmental initiatives and specific plans demonstrate the country's commitment to developing a responsible economy that respects the environment and benefits local communities. These measures testify to the public authorities' determination to exploit its marine resources sustainably and foster inclusive economic growth.

Although the prospective analysis of Morocco's blue economy highlights promising trends, the absence of blue sustainable economy observatories prevents a deeper analysis.

With the emergence of new economic, geostrategic and geopolitical challenges in the Atlantic Ocean, a sustainable blue economy strategy is an urgent priority. It will enable us to concert and coordinate the various coastal and maritime sectors and activities. In addition, the multiplicity of stakeholders (public sector and agencies) will require a revision of the legal and institutional framework supporting a sustainable blue economy. This overhaul will foster the development and enhancement of existing and emerging sectors. Finally, the country is expected to intensify its efforts to support research, innovation, and strengthen cooperation between public and private actors, at both the regional and international levels. This will enable the country to seize the opportunities offered by a sustainable and inclusive blue economy, while addressing the environmental and socio-economic challenges it faces.

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