United Nations
Economic Commission for Africa

ECA POLICY BRIEF

Unlocking the potential of the blue economy for socioeconomic development in Southern Africa

Issues and policy options

1. Background

The present policy brief derives from a background study conducted by the Subregional Office for Southern Africa of the Economic Commission for Africa (ECA), entitled: "The Blue Economy, Inclusive Industrialization and Economic Development in Southern Africa", which was presented to the twenty-fourth session of the Intergovernmental Committee of Experts Meeting for Southern Africa in Mauritius in September 2018.1

2. Preamble

The blue economy is a widely used term to describe an integrated vision of creating wealth and anchoring socioeconomic development on oceanic resources within the limits of economic and environmental sustainability. As an organizational framework for development, resource and environmental management policies and programmes, the blue economy enables countries to anchor development on the natural oceanic and inland water resources (Colgan, 2017). Although there remains no specific definition of the term 'blue economy', some analysts ascribe the term to the 2010 report to the Club of Rome (Pauli, 2010), while others find more relevance to its origins in United Nations General Assembly resolution 66/288, adopted in September 2012 and resulting from the United Nations Conference on Sustainable Development. The Sustainable Development Goal framework, through Goal 14, more explicitly aims to ensure the sustainable use of oceanic resources and is the anchor of current international initiatives towards the optimal and sustainable exploitation of these resources. The blue economy provides an array of opportunities to contribute to ending poverty (Goal 1); improving food security and eliminating hunger (Goal 2); and accessing clean water (Goal 6). The African Union has recognized the strategic importance of the blue economy for job creation, socioeconomic transformation and sustainable growth by calling it a new frontier of African renaissance in its Agenda 2063.2[2] Africa stands to reap optimal benefits by

1 The ECA Subregional Office for Southern Africa would like to thank Dr. Tumaini Shabani Gurumo, who prepared the background study. "Southern Africa" is predominantly defined to include the member States of the Southern African Development Community (SADC) and of the Common Market for Eastern and Southern Africa (COMESA).

2 See **https://au.int/en/agenda2063**.

utilizing its aquatic and marine ecosystems and associated resources for sustainable socioeconomic development. To support this vision, in 2016, the Economic Commission for Africa (ECA) launched Africa's Blue Economy: A policy handbook (ECA, 2016), which advocates for a multisectoral approach to the blue economy and provides a step-by-step methodology for policy development at all levels.

The blue economy concept thus essentially seeks to promote economic growth, social inclusion and the preservation and improvement of livelihoods while not only ensuring the environmental sustainability of the aquatic and marine ecosystems and associated resources, but also achieving long-term prosperity through their conservation and sustainable management. Strong growth is particularly expected in marine aquaculture, offshore wind energy, shipbuilding and repairs, port activities and seafood processing. In addition, government-related administrative and resource management functions are integral parts of the blue economy value chain. Oceanic and inland water resources thus provide opportunities for socioeconomic development through diverse value chains from ocean-based economic activities. Ocean-based established and emerging industries are identified in table 1.

Table 1
Established and emerging ocean-based industries

Established	Emerging
Capture fisheries	Marine aquaculture
Seafood processing	Deep-and-ultra-deep-water oil and gas
Shipping	Offshore wind energy
Ports	Ocean renewable energy
Shipbuilding and repair	Marine and seabed mining
Offshore oil and gas (shallow water)	Maritime safety and surveillance
Marine manufacturing and construction	Marine biotechnology and bioprospecting
Maritime and coastal tourism	High-tech marine products and services
Marine business services	Other
Marine research and development and education	
Dredging	

Source: The Ocean Economy in 2030, Organization for Economic Cooperation and Development (OECD), 2016.

3. Issues

Southern Africa is abundantly endowed with oceanic and inland water resources, which provide a variety of economic development opportunities. Currently, the region is benefiting from the contribution of blue economy sectors, especially fisheries, shipping, maritime and coastal tourism and minerals extraction. However, there is untapped potential for other industrial activities within the sectors to further expand and extend value chains. Furthermore, the immense benefits that could be derived from the Indian and the Atlantic Oceans remain untapped owing to operational challenges. Yet, these could help to address underdevelopment, food insecurity, unemployment, poverty and inequality (ECA, 2017). Although oceanic and aquatic water resources have been in use since time immemorial – mostly for fisheries, maritime transport and maritime and coastal tourism, thereby making a significant contribution to the well-being of coastal societies and to the national income of island and coastal states – their contribution has not been fully explored and prioritized as anchors for development by most Southern African member States. The blue economy resource is not only for the benefit of coastal and island States but also for landlocked countries (box 1). Furthermore, blue economy activities are not

confined to the waters; they encompass activities emanating from collaboration among coastal, island and inland countries. Such collaboration is essential for the derivation of the benefits of regional economic value chains from the blue economy. In most oceanic, island, coastal and inland countries, a gap still exists between the developmental potential and the full exploitation of the abundant oceanic resources.

A study on the blue economy in Southern Africa (ECA, 2018) revealed that vast blue economy resources can indeed anchor socioeconomic development, industrial economic diversification and structural transformation for coastal, land linked, landlocked and island States. This can be done through established economic uses of the ocean and other emerging activities, such as those related to offshore oil and gas

Box 1

Landlocked countries in the blue economy value chain

Landlocked countries:

- Have navigable waters in the form of lakes and rivers that are also abundantly endowed with natural resources. The waters of these lakes and rivers transcend past some of these coastal States thereby presenting opportunities for cooperation as envisaged in the blue economy inclusive industrialization and economic development agenda;

- Have an interest in oceans and seas in so far as their international trade (marine transport of goods) and food security (fishery) needs are concerned. They have a similar role as coastal and island States to protection and preservation of marine environment. Unregulated and mismanaged disposal of harmful chemicals from industrial and domestic activities contributes highly to marine environment pollution;

Countries can provide support to coastal and island States in blue economy related activities for regional economic value chains. Whereas coastal States provide maritime ports, landlocked countries provide inland or dry ports and storage facilities for both receiving and possible transit of goods to further destinations. Construction and manufacturing of on-board ship equipment, ship parts manufacturing and training of port and ship board personnel is another area for regional economic value chains region. The availability of quality training and equipment within the region will be useful in saving the cost of production and service meanwhile benefiting landlocked countries.

In addition, landlocked countries:

- Can improve land transport and transit infrastructure for timely connectivity for trade in goods and services, which is important for trade competitiveness in the region;

- Can be active in maritime affairs within the region and beyond, which is an opportunity to learn from best practices, chart experiences and encounter new possibilities for sustainable development through blue economy;

- Can collaborate with coastal States for strategic blue economy projects and activities for mutual benefit in which case providing opportunities for inclusive regional development.

Source: Based on information in Blue Economy, Inclusive Industrialization and Economic Development in Southern Africa, September 2018.

extraction, deep sea minerals exploitation, renewable energy development, aquaculture, biotechnology and research and development, as well as their related value chains. Inland waters in the form of lakes, rivers, wetlands and other reservoirs also contribute to socioeconomic development and environmental sustainability through fisheries and aquaculture, tourism, shipping, mining, energy (hydropower generation), carbon sequestration, water filtration and temperature and atmospheric regulation. As the region strives to address socioeconomic challenges, the opportunities offered by the blue economy therefore need to be exploited by all States regardless of their proximity to oceanic or inland water resources in order to support industrialization and development. The experience of how Indian Ocean Rim Association countries, through collaboration and a harmonized approach, can benefit immensely from oceanic resources is instructive. Albeit in different ways, those countries use the sea for economic development and for the protection of the marine ecosystem. For example, Mauritius and Seychelles use the sea as the backbone of their tourism and financial services sectors. The approach adopted by Seychelles to the exploitation of blue economy resources, which seeks to spur economic diversification, create high value jobs, ensure food security and promote the sustainable use of marine and coastal resources, has enabled the country to generate economic opportunities for its citizens.

Geographically, Southern Africa is positioned as one of the world's most important maritime routes through the Indian and Atlantic Oceans. While over 80 per cent of global trade by volume is carried on board ships and handled by seaports worldwide (United Nations Conference on Trade and Development (UNCTAD, 2017), regional ports remain uncompetitive owing to capacity and efficiency issues. Deliberate investment in shipping infrastructure and services will improve ship turnaround times and thus enhance competitiveness. The availability of loading and unloading equipment will also boost the competitiveness of regional ports and services, generating more economic benefits to regional States.

Human capacity and technological innovations are important for the competitiveness of the ship building and repair industry. The shortage of skilled personnel in the sector remains a challenge for all countries. For example, the coastal and marine tourism sectors generally have difficulties in attracting or maintaining skilled personnel. Similarly, the shortage of ship officers worldwide is estimated to grow to 147,500 by 2025 (UNCTAD, 2017). Investing in maritime education and training centres of excellence will therefore create opportunities for decent blue jobs for the increasing youth population. Survey and certification, ship scrapping, port and ship facilities manufacturing and infrastructure building are some of the major activities related to shipping that could provide potential opportunities for establishing and strengthening production industries in the region. However, a lack of an innovative culture undermines entrepreneurship and the creation of new products throughout the blue economy value chain.

A shortage of maritime professionals hinders the accelerated development of blue economy industrial sectors. For example, the shortage of maritime professionals in the law-making bodies and at decision-making levels undermines the pace of development of the sector. Nevertheless, the implementation of Agenda 2063 of the African Union and 2050 Africa's Integrated Maritime Strategy (African Union, 2012), has established a base for maritime awareness and the development of a sustainable and thriving blue economy in a secure and environmentally sustainable manner. To accelerate the agenda, blue economy professionals need to drive programmes and policies.

An estimated 90 per cent of fishers are in developing countries and about 38 per cent of the world's fish and sea food production is involved in international trade. Investing in fishing fleets and in the establishment of value-addition industries for seafood is essential for full advantage to be taken of the blue economy's potential for job creation in coastal communities and for the growth of micro, small and medium-sized enterprises. In most coastal and island States, local communities are highly involved in fishing but on a small scale. Their activities are limited to easily accessible resources along the coast. Such communities should be given opportunities to expand through support from financial service providers with appropriately calibrated financial support packages. Furthermore, regional fishing fleets could be introduced to serve as security and help to eliminate the challenges of unauthorized and excessive fishing by foreign vessels.

Coastal and marine tourism holds promise for growth and employment creation, especially if it is underpinned by collaboration among States. It is a substantial part of world tourism and a major contributor to the economies of coastal and island States. Tourism contributed about 9 per cent, 13 per cent, 26 per cent and 58 per cent to the gross domestic product of South Africa, Madagascar, Mauritius and Seychelles in 2016, respectively. During the same year, the sector directly employed 715,500 people in South Africa, 225,000 in Madagascar, 43,000 in Mauritius and 13,000 in Seychelles (World Travel and Tourism Council, 2017). If the sector was highly integrated, the contribution to employment would be boosted along product value chains. The gigantic cruise ships sailing the oceans should be supported by commensurate infrastructure and encouraged to create employment through linkages with local micro, small and medium-sized enterprises as part of their input and output supply chains. In addition, the promotion of sustainable tourism should anchor the sector. Sustainable tourism promotes the conservation and sustainable use of the marine environment and species while generating income for local communities, thereby alleviating poverty. The active participation of local communities along the value chain minimizes leakages and offshoring as incomes circulate within the local economy.

The exploitation of oil and gas resources is a major contributor to economic growth and development. Contracts for offshore oil and gas exploration and exploitation must be well articulated to afford local communities opportunities for skills transfer, the establishment of production industries, employment creation and the alleviation of poverty. Oil refineries, pipelines maintenance and management and gas distribution are some of the sectors along the oil and gas value chain for investment. Other value-addition sectors, such as soap making and chemicals, could be promoted as secondary activities through policies that advocate for local value addition and local content.

Research, innovation and development are key to local value addition and the further processing of blue economy products, including in sectors such as marine research and biotechnology. These should be given high priority in national budgets to be able to ascertain important areas and plan for new development, such as in seabed mining, marine renewable energy and biotechnology. The global market for marine biotechnology products and processes is currently estimated at $4.6 billion and is expected to grow (UNCTAD, 2014), thus offering significant business opportunities for entrepreneurs in coastal and island States. Scientific research and laboratories are necessary for the development of pharmaceutical industries using marine genetic resources that are commercially valuable worldwide. Seabed mining is another emerging opportunity that requires considerable research and investment, while sustainable marine energy is vital in socioeconomic development, as well as in climate adaptation and mitigation.

As noted earlier, the blue economy recognizes both economic and environment limitations and thus climate change effects are an important consideration. In recent times, climate change has become the largest environmental threat and its associated marine-related effects include sea level rises, changes in ocean chemistry (acidification) and changes in temperature. Such changes have an impact on the economic use of the seas; for example, warm temperatures may result in the migration of fish stocks and thus affect the fishing industry. Investment in technology, infrastructure, shoreline properties and coastal systems will be needed to address these climate change-induced challenges. Collaboration among States will also be necessary to meet the global challenge.

Strong political will among regional leadership will be paramount for the successful implementation of blue economy programmes. Selected leadership commitments to the blue economy from SADC member States are shown below (box 2).

The presence of such visionary leadership willing to move forward the blue economy agenda for economic development is paramount. Best practices demonstrate that the process of promoting and managing blue economy initiatives demands high-level and dedicated institutional governance to coordinate decisions and activities.

Box 2
Leadership statement of intent on advancing a sustainable blue economy

Angola: committed to using the blue economy as a mechanism to achieve sustainable socioeconomic and cultural development.

Comoros: pledged to better manage the ocean economy to contribute to poverty eradication, employment, ensure food and security and enhance ecosystem and waste management.

Madagascar: announced cross-sectorial involvement to implement a maritime strategy to reinforce security, improve sea transport, value fisheries adequately and create employment for young people in the blue economy.

Malawi: committed to working closely with the global community on technology innovation and ecosystem conservation and promoting best practices and scientific advances on sustainable use of water bodies.

Mauritius: committed to restoring degraded coral reefs by increasing the number of coral nurseries from 18 to 30; to conducting a sea resources survey to identify new species and their stock potentials; and to monitoring and restoring sea grass.

Mozambique: highlighted the country's 2017 policy and strategy of the sea, including the establishment of a blue economy observatory to coordinate, harmonize and maximize the use of the sea.

Namibia: highlighted the 2017-2022 blue economy strategy, which will address marine mining, tourism development and port infrastructure and services and will eradicate illegal, unreported and unregulated fishing.

Seychelles: committed to training more women to join the blue economy and to cooperating with various stakeholders from different sectors to promote a transparent, sustainable blue economy beneficial to people.

South Africa: highlighted Operation Phakisa, or 'hurry up' to indicate the urgency with which the country aims to unlock the economic potential of a sustainable blue economy.

United Republic of Tanzania: committed to mainstreaming the blue economy and including climate change and environmental sustainability in its development planning.

African Union Commission: pledged to make the blue economy a flagship project of the AU's Agenda 2063.

ECA: its *Policy Handbook* guides African member States to better mainstream the blue economy into their national development plans, strategies, policies and laws.

Source: The Sustainable Blue Economy Conference, Nairobi, Kenya, November 2018.

In addition to expressing such commitments, other countries have established structures within government to specifically deal with blue economy issues. For example, in South Africa, the President's Office serves as a special purpose vehicle to coordinate the ocean economy initiative, while the Department of Planning, Monitoring and Evaluation is the lead institution for interdepartmental cooperation. Similarly, Mauritius established a Ministry of Ocean Economy, Marine Resources, Fisheries and Shipping which is dedicated to ocean conservation and use for sustainable development, and the Department of Ocean Economy within the country's Board of Investment is dedicated to the coordination of blue economy projects. In Seychelles, the Ministry of Finance, Trade and Blue Economy is responsible for blue economy activities, among other issues. These dedicated administrative structures are key to the success of the respective national blue economy initiatives.

To fully and sustainably exploit the range of opportunities that exist in the blue economy sector, the challenges of market access and competition, economies of scale and scope, environmental degradation, climate change, measurement of the sector, marine security, human resources skills and technology all need to be adequately addressed. Environmental challenges from nature and human factors, such as the overexploitation of resources, increasing marine pollution, illegal fishing, biodiversity loss and the impacts of global climate change, need

to be factored into blue economy promotion and management strategies. Common internal and external challenges faced by both coastal and inland States are summarized in table 2.

Table 2
Challenges in exploiting blue economy opportunities

1	Limited knowledge of the economic importance and potential of blue economy
2	Environmental sustainability concerns
3	Maritime safety and security
4	Limited access to technology and low levels of skills
5	Lack of visionary leadership on the blue economy
6	Poorly designed legal, regulatory and institutional frameworks
7	Limited financing for deserving blue economy-related projects
8	Poor transport and ports infrastructure
9	Limited collaboration among coastal and land-linked countries
10	Inadequate capacity to comply with standards
11	Inadequate access to market information
12	Inadequate incentives to promote blue economy initiatives
13	Limited support to small and medium scale enterprises

Source: Blue Economy, Inclusive Industrialization and Economic Development in Southern Africa, September 2018.

4. Policy options

To successfully exploit the blue economy for social economic development, States should capitalize on the growing international need for ocean resources and services while remaining cognizant of their national competitive advantages. In addition to developing, strengthening and implementing effective ocean management and governance frameworks to ensure marine resource sustainability, they should address the policy and legal and regulatory frameworks gaps, strengthen regional collaboration and strengthen skills and capacity in the sector. Regional and national blue economy frameworks provide an opportunity to develop an integrated approach to the utilization and management of marine resources.

Policies and legal and regulatory frameworks

States should develop policies and legal and regulatory frameworks for the blue economy and integrate these into their national development visions and strategies. This will facilitate the holistic reorientation of national development policies, plans and strategies to incorporate blue economy opportunities as key economic development drivers for employment, poverty eradication and inclusive industrialization. It would also provide a platform for the sector to effectively anchor development.

The development of comprehensive legal, regulatory and institutional frameworks for blue economy sectors will enable the connectivity of various ocean-based and ocean-related economic sectors and the coordination of various blue economy activities within countries, as well as across the region. Furthermore, by ensuring that the development and implementation of national blue economy strategies and programmes is informed by both the 2030 Agenda and Agenda 2063, States would accelerate the achievement of the Sustainable Development Goals. National blue economy frameworks and strategies, developed through a fully consultative process, should include comprehensive skills development programmes to create “blue skills” to support the growing sector. This framework should include strategies for the active participation of the private sector in leading industrial development.

Multi-stakeholder collaboration

The promotion of cooperation and integration among stakeholders in the development of blue economy strategies and activities should be an integral part of national and regional strategies. This will instil trust among stakeholders, improve social cohesion and political stability, and allow for effective and informed decision-making as programmes are rolled out. The development of frameworks and strategies to facilitate private sector participation in blue economy opportunities will allow for private sector investments, innovations and the growth of small and

medium-sized enterprises along blue economy value chains. The private sector can then engage regional governments with investment proposals in the blue economy sector, taking advantage of the conducive business environment.

Fostering collaboration in the development and implementation of blue economy policies and strategies among coastal, island and landlocked countries, through a comprehensive regional policy framework, will strengthen regional value chains and enable countries to benefit collaboratively from the blue economy. Collaboration can occur at three levels: structural collaboration, which entails working jointly on projects; the harmonization of rules, such as intellectual property rules; and the pooling of financial resources to invest in larger projects.

Regional perspective

A harmonized regional policy framework should include strategies to collectively address common environmental (including climate change related) and marine security challenges. It should also provide for the alignment of blue economy administrative frameworks and research, innovation and development programmes, and blue economy skills development strategies. Collaboration will facilitate the development of regional centres of excellence for both technology and skills development (capacity-building, education and training, blue careers and gender equality).

A regional approach to the sector will generate economies of scale and scope among businesses. Scale economies will allow for substantial increases in output and efficiency with enhanced cost competitiveness. A regional collaborative approach should be strengthened through the institutionalization of a platform for sharing experiences. In that way, States that have advanced in making the blue economy part of their overall national development plans, such as Madagascar, Mauritius, Seychelles and South Africa, can share experiences with the rest of the region for adaptation. For example, the experience of Seychelles with domestic resource mobilization for blue economy projects, involving the use of blue bonds and debt swaps for conservation, could be shared with others. Equally, the strategy of creating special-purpose vehicles to drive the sector, as has been done in Seychelles and South Africa, could be considered by other States in the region.

A regional approach will be key to facilitating the development of prioritized but costly regional infrastructure, including dry and coastal ports and inland transport (road, rail and waterways), by harnessing innovative financing methods such as public-private partnerships; natural resources-infrastructure swaps; pension funds; diaspora remittances; infrastructure bonds; blue bonds; and sovereign wealth funds. Regional economic communities and development partners are central to a regional approach to the management of blue economy resources.

5. Conclusion

The increasing demand for blue economy sector products and services, such as fish protein, seafood, clean energy, maritime and inland ports, and ships and seafarers, presents opportunities for growth and jobs creation to anchor livelihoods for citizens in coastal, island, landlocked and land linked countries. The blue economy is a basket of growth opportunities that should be harnessed. Strategic priorities on the road map to sustainable exploitation should include the creation of harmonized policy, legal and regulatory frameworks within Southern Africa and coordinated strategies for technology, skills, research, innovation and development to benefit scale and scope economies. The development of blue educational technical and vocational training programmes is imperative and should be part of a comprehensive and integrated regional blue skills development strategy.

However, these blue economy opportunities for growth and development face significant competitive pressures from well-developed global markets, including technological changes and business cycles. This calls for the accelerated implementation of projects with full information on the operating environment. Both mature and evolving blue economy sectors need a holistic planning approach.

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