Introduction

Aim of the policy handbook

ECA SRO-EA held its 19th session of the Intergovernmental Committee of Experts (ICE) on 2–5 March 2015, in Antananarivo, Madagascar, on the theme "Harnessing the Blue Economy for the development of Eastern Africa." The meeting urged States in Africa to mainstream the Blue Economy into their national and regional development plans, where applicable.

The Blue Economy in the African context covers both aquatic and marine spaces, including oceans, seas, coasts, lakes, rivers, and underground water. It encompasses a range of productive sectors, including fisheries, aquaculture, tourism, transport, shipbuilding, energy, bioprospecting, and underwater mining and related activities.

At the March 2015 meeting, States were encouraged to establish the necessary institutions and build the relevant capacities to better harness the potential represented by the Blue Economy. The meeting noted the importance of the AU's 2050 African Integrated Maritime Strategy (AU 2050 AIMS)[1], including the Maritime Transport Charter. In order to accelerate the implementation of this strategy, as well as increase the level of understanding of other relevant international frameworks, such as the United Nations Convention on the Law of the Sea (UNCLOS) or Montego Bay Convention, the meeting requested ECA SRO-EA to develop a Blue Economy Policy Handbook for Africa.

In line with the decisions of the 19th ICE, the main aim of this handbook is to provide a step-by-step guide on how to mainstream the Blue Economy into continental, subregional, and national policies, plans, laws, regulations, and practices for the development of African sustainable Blue Economy strategies. It targets African States, Regional Economic Communities (RECs), Regional Seas Conventions, and intergovernmental organizations (IGOs). Therefore, the Blue Economy Policy Handbook intends to raise the level of understanding of the Blue Economy concept by all relevant stakeholders, including African island, coastal, and land-locked[2] States, in pursuit of structural transformation, sustainable economic growth, and enduring societal progress.

1 *http://pages.au.int/maritime/documents/2050-aim-strategy* (accessed 27 November 2015)

2 While land-locked States is the official term used under UNCLOS, in the 2050 AU AIMS, States are designated as "landly connected" States.

It will support the work of the African Climate Policy Centre (ACPC) on ***Building Resilience to Climate Change and Securing Development Opportunities in African Small Island Developing States*** and the African Minerals Development Centre (AMDC) in the context of the Africa Mining Vision (AMV).

The Policy Handbook comprises an introduction and three parts. These include Part I on Setting the Scene for Policy Development, Part II on Processes and Design Toward an Effective Blue Economy Policy, and Part III on Cross-Cutting Issues.

The Policy Handbook focuses in particular on oceans and seas, related processes, and activities.

The Blue Economy in Africa

Global environment

More than 70 percent of the Earth is covered by water. Water is the starting point for all life. Half of the world's population lives within 60 km of the sea, and three-quarters of all large cities are located on the coast.[3]

The world's oceans, seas, and rivers remain a major source of wealth, creating trillions of dollars in goods and services. Oceans and freshwater sources provide livelihood and employment to millions of people. The UN Food and Agriculture Organization (FAO) estimates that fish provide more than 4.2 billion people with more than 15 percent of their animal protein intake.[4] Of the world's international trade, 90 percent is transported by sea.[5] Oceans also play an important role in regulating climate and the functioning of coastal marine ecosystems, such as mangrove forests, kelp forests, sea grass meadows, and saltwater marshes, as well as in storing and sequestering atmospheric carbon[6].

The global market for marine biotechnology is expected to reach USD 5.9 billion by 2022, driven by increased investments in marine biotechnology research and

3 *http://www.unep.org/urban_environment/issues/coastal_zones.asp* (accessed 27 November 2015)
4 FAO, 2014. State of the World Fisheries and Aquaculture: Opportunities and Challenges.
5 *http://www.ics-shipping.org/shipping-facts/shipping-and-world-trade* (accessed 27 November 2015)
6 Lutz, S.J., and A.H. Martin, 2014. GRID-Arendal. Fish Carbon: Exploring Marine Vertebrate Carbon Services.

growing demand for natural marine ingredients.[7] Biotechnology is essential for developing new foods, pharmaceuticals, bioenergy, and cosmetics.

To meet the world's increasing energy demand, oil and gas will continue to be the major source of the world's energy well into the 21st century. Since the 1950s, offshore hydrocarbon extraction has increased tremendously. Currently, approximately 30 percent of world oil and gas production comes from offshore resources, and it is expected to continue to increase in the future.[8]

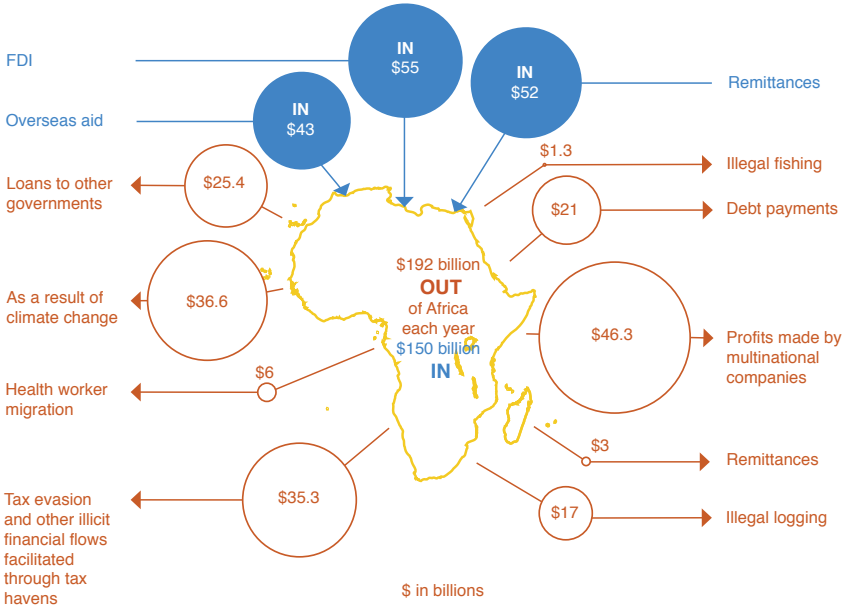
Continental perspectives

Africa is developing fast and is showing some impressive progress. Over the past decade, Africa has recorded an average of 4 to 5 percent growth in GDP, despite a recent unfavorable international economic and financial environment.[9] Six of the world's ten fastest-growing economies are in Africa.[10]

Despite Africa's rich resource endowments, the continent still suffers from large-scale poverty, with 46 percent of the population living in extreme poverty. Africa will account for much of the exponential growth in the world's population this century, and a quarter of the population on Earth in 2050 will be from Africa.[11] Furthermore, growth has generally not been accompanied by broad-based social progress and structural transformation of the economy. While the continent is experiencing a rising middle class, a large part of the population is still unemployed, and populations are suffering from a large unequal distribution of wealth. Around USD 42 billion per year leaves the continent through illegal fishing and illegal logging, among other causes. Tax havens in many jurisdictions are located in island States or territories. Figure 1 depicts financial resources into and out of Africa, including from activities associated with the Blue Economy.

7 *http://www.marketresearchstore.com/report/global-marine-biotechnology-market-outlook-trends-forecast-35868* (accessed 27 November 2015)
8 *http://www.modec.com/about/industry/oil_gas.html* (accessed 27 November 2015)
9 ECA, 2015. African Economic Outlook 2015.
10 International Monetary Fund (IMF), 2014. World Economic Outlook Report.
11 AU 2050 AIMS.

Figure 1: *Financial resources into and out of Africa in reference to foreign direct investment (FDI), international assistance, and remittances (2010)*



Source data from: *KPMG, World Bank, British Broadcasting Corporation (BBC) 17/4/13, Health Poverty Action, Jubilee Debt Campaign, World Development Movement, African Forum and Network on Debt and Development (AFRODAD), Friends of the Earth Africa, Tax Justice Network, People's Health Movement, War on Want, Community Working Group on Health Zimbabwe, Medact, Healthworkers4All Coalition, GroundWork, Friends of the Earth South Africa, Friends of the Earth Mozambique.*

Africa is endowed with a variety of natural — living and nonliving — resources, such as water; diverse flora and fauna, including fish stocks; minerals; and hydrocarbons. Additionally, 38 of the 54 African States are coastal States.

Maritime zones under Africa's jurisdiction total about 13 million square kilometers, including territorial seas and Exclusive Economic Zones (EEZ) and approximately 6.5 million square kilometers for the continental shelf (for which countries have jurisdiction over only the seabed).[12] The continent therefore has a vast ocean resource base that can contribute to sustainable development

12 GRID-Arendal, 2015. Area coverage of African marine spaces, compiled from unpublished raw data.

of African States. The lacustrine (or lake) zones of Africa cover approximately 240,000 square kilometers.[13]

International trade is important to many African economies, with more than 90 percent of Africa's imports and exports conducted by sea.[14] Freshwater and ocean fish make a vital contribution to the food and nutritional security of over 200 million Africans and provide income for over 10 million.[15]

The increasingly intense use of the oceans and seas in several economic sectors, combined with the impacts of climate change, has added to the pressure on the marine environment. In addition, a large part of the African population lives in coastal areas, and with most African coastal countries undergoing rapid population growth, urbanization, coastward migration, and associated socioeconomic growth, countries are experiencing dramatic coastal change, with increased pressure on marine resources. This situation, in combination with advanced technological possibilities, has raised the awareness of various stakeholders of the need to sustainably manage water bodies as "development spaces." This has led to the concept of the Blue Economy.

Other challenges negatively impact the Blue Economy. These include threats such as piracy and armed robbery, the trafficking of people, illicit narcotics and weapons, as well as "natural" threats from tsunamis and hurricanes, and rising sea levels and ocean acidification. Overfishing caused by illegal, unreported, and unregulated (IUU) fishing and other unsustainable fishing practices also pose a serious problem in the region, along with pollution and habitat destruction.

The Blue Economy concept

As stated earlier, the Blue Economy in Africa covers aquatic and marine spaces, including oceans, seas, coasts, lakes, rivers, and underground water, and it comprises a range of productive sectors, such as fisheries, aquaculture, tourism, transport, shipbuilding, energy, bioprospecting, and underwater mining and related activities (see Table 1).

13 *Ibid.,* 2015. Area coverage of African lacustrine spaces, compiled from unpublished raw data.
14 AU 2050 AIMS.
15 FAO, 2014. The Value of African Fisheries, FAO Fisheries and Aquaculture Circular No. 1093.

Table 1: *Key Blue Economy ecosystem services and sectors*

Type of ecosystem services	Blue Economy sectors
Harvesting of living aquatic resources (seafood, plant marine organisms, and marine-biotechnological products)	Fishing (inland, coastal, and deep seas) Aquaculture Mariculture Pharmaceuticals, chemicals, cosmetics, genetic research
Extraction of nonliving resources and generation of new energy resources	Deep-sea and seabed mining Offshore oil and gas Renewable energy Marine salt harvesting Coastal mining of sand, gravel, and other construction materials
Commerce and trade in and around the ocean and rivers	Maritime transport and services Port infrastructure Shipbuilding and repairs River transport Tourism and recreation
Protection	Coastal protection Marine ecosystem protection Water resource protection
Cultural and religious values	Cultural and religious practices
Knowledge and information	Biophysical, socioeconomic, and political research

Source: *Authors.*

The Blue Economy concept includes recognition that the productivity of healthy freshwater and ocean ecosystems is a pathway for aquatic and maritime-based economies and can ensure that islands and other coastal countries, as well as land-locked States, benefit from their resources. It also requires an integrated, holistic and participatory approach that includes sustainable use and management of Blue Economy resources for societal progress in a diverse Africa. The Blue Economy framework is therefore intended to move from the current sectoral approach to a multisectoral, integrated, and participatory approach at multiple levels.

Figure 2 illustrates the prevailing Blue Economy approach in many jurisdictions, whereas Figure 3 shows the desirable Blue Economy framework. The existing Blue Economy framework encompasses a linear, compartmentalized, and sectoral approach with weak connections, linkages, and synergies between various scales of intervention (global, international, and national) as well as

among the sectors concerned. The new Blue Economy framework offers an integrated, systemic, dynamic, inclusive, participatory, and ecosystem-based approach in which sectoral barriers are minimized at the activity and governance level, and environmental, social, and economic dimensions are intertwined and pursued for all Blue Economy activities.

The Blue Economy builds on Integrated Coastal Zone Management (ICZM) . This centers on the ecosystem and embeds the principles of the ***Green Economy in a Blue World*** report and sustainable development, taking into account the three pillars of environmental, economic, and social sustainability, as highlighted in the 2012 Rio+20 outcome document, ***The Future We Want***, and the United Nations five-year Action Agenda 2012–2016.[16]

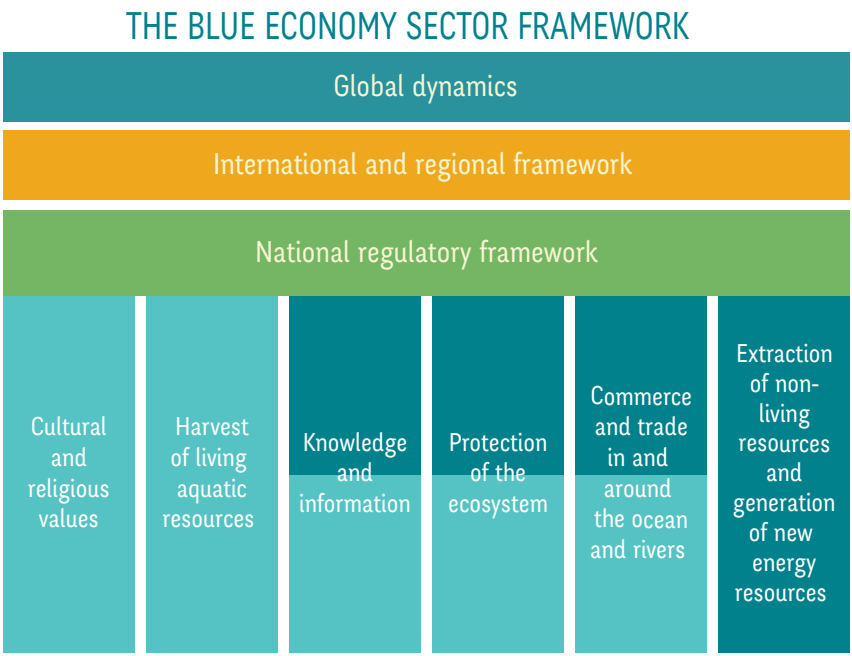
The Blue Economy promotes the conservation of aquatic and marine ecosystems and sustainable use and management of associated resources and builds on principles of equity, low carbon development, resource efficiency, and social inclusion. The concept integrates the Blue Economy sectors through a socially inclusive process aimed at triggering Africa's structural transformation, promoting integrated development, and improved regional cooperation and coordination.

The AU plays a crucial role in developing and implementing the Blue Economy policy and strategy in the African region. Over the past decade, the African Union Commission (AUC) has built an enlarged Africa-wide consensus regarding the critical role that the Blue Economy could play in fostering structural transformation in Africa during the next decade. This is encapsulated in the African Union's 2050 Africa's Integrated Maritime Strategy (AU 2050 AIMS), which describes the Blue Economy as the "new frontier of African Renaissance." In addition, the Blue Economy is at the center of the AU's Agenda 2063, at which it was unanimously declared to be "Africa's future" and recognized as a catalyst for socioeconomic transformation. In July 2015, the African Union launched the African Day (25 July) and Decade of Seas and Oceans 2015–2025 to rally action on the Blue Economy.[17]

16 *http://www.unep.org/greeneconomy/AboutGEI/WhatisGEI/tabid/29784/Default.asp* (accessed 27 November 2015)

17 Decision Document (Assembly/AU/16(XXII) Add. 1), 22nd Ordinary Session of AU Heads of State and Governments on the adoption and implementation of the AU 2050 AIMS. See: *http://www.au.int/en/sites/default/files/decisions/9659-assembly_au_dec_490-516_xxii_e.pdf* (accessed 27 November 2015)

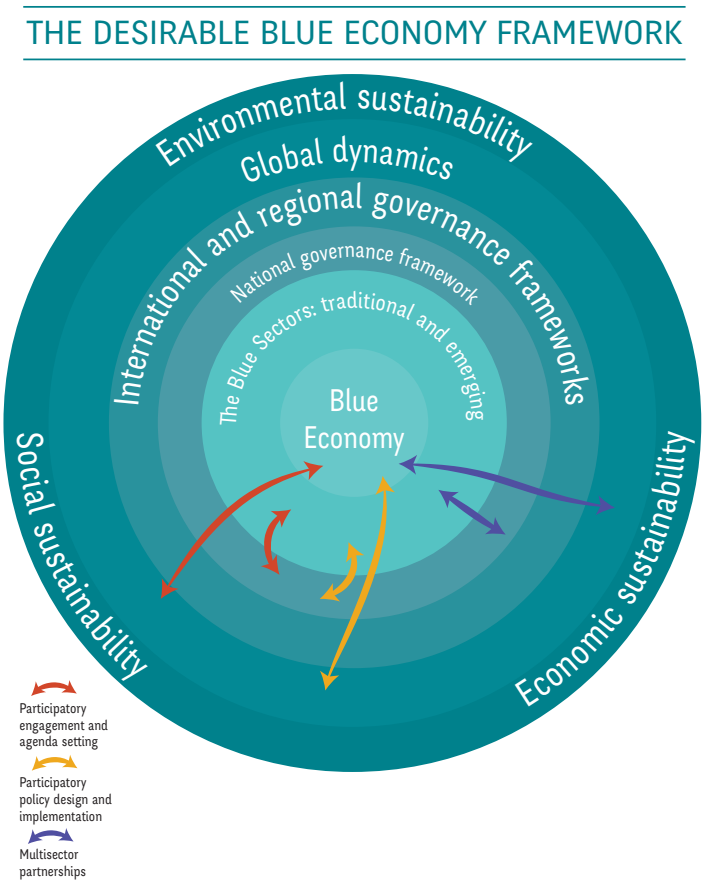
Figure 2: *The prevailing Blue Economy framework*



Source: *Authors*

RECs, IGOs, and States are starting to recognize the importance of the Blue Economy, and some are developing Blue Economy strategies. For example, the Indian Ocean Commission (IOC), which includes four African States, is developing a Blue Economy Action Plan for its members. At the country level, Blue Economy strategies are being pursued, albeit only in a few countries in Africa. Mauritius and the Seychelles have advanced Blue Economy policies and institutional frameworks, and South Africa is developing its Blue Economy strategy.

Figure 3: *Blue Economy conceptual framework*



Source: *Authors*

The United Nations has adopted ocean development as part of its Sustainable Development Goals (SDGs). In particular, SDG 14 refers to "Conserve and sustainably use the oceans, seas, and marine resources for sustainable development." In addition, the Blue Economy is interlinked with the majority of the SDGs in a variety of ways. Aquatic and marine resources play a crucial role in supporting an array of economic sectors that provide livelihoods and employment opportunities to end poverty (SDG 1). Figure 4 (see page 10) is a non-exhaustive list of linkages between Blue Economy development and the 17 SDGs.

Figure 4: *Linkages between development of the Blue Economy and SDGs*

Potential POSITIVES of proper development of the Blue Economy	SDG Goals	Potential NEGATIVES of improper development of the Blue Economy
Improved livelihoods and employment Investment in enterprises	1 NO POVERTY	Space conflicts Marginalization
Enhanced sustainable food production Improved food distribution	2 ZERO HUNGER	Increased food waste Harmful commoditization of food
Improved water quality Increased funding to health services Improved occupational safety of seafarers	3 GOOD HEALTH AND WELL-BEING	Pollution Weak revenue capture at national level
Enhanced knowledge infrastructure Increased funding for the education sector Skill development	4 QUALITY EDUCATION	Outsourcing of skilled labor Unwillingness to invest in local training and education Brain drain
Increased equal rights to economic resources Increased participation in decision making	5 GENDER EQUALITY	Increased gender disparity in wages Proliferation of income gap
Increased funding for access to clean water and sanitation Investments in nature-based water provision services	6 CLEAN WATER AND SANITATION	Water pollution Destruction of nature-based water provision services
Enhanced access to renewable energy Improved knowledge base to build and maintain infrastructure	7 AFFORDABLE AND CLEAN ENERGY	Continued incentivization of carbon-based energy Population displacement Environmental impacts
Job creation Economic diversification	8 DECENT WORK AND ECONOMIC GROWTH	Wealth concentration Over-reliance on quantitative growth
Increased and improved infrastructure Technological progress	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	Environmental impacts High dependency on technology
Enhanced benefit distribution Enhanced participatory engagement of all stakeholders	10 REDUCED INEQUALITIES	Business as usual Concentration of influence
Improved cycling, harvesting, and use of water Cities have access to clean renewable energy	11 SUSTAINABLE CITIES AND COMMUNITIES	Increased pressure on freshwater resources Pollution
Removal of inefficient fossil-fuel subsidies Promotion of more equitable trade of goods and services	12 RESPONSIBLE CONSUMPTION AND PRODUCTION	Unsustainable production practices Increased waste flows
Transition to low-carbon economies Resilience to uncertain climate future	13 CLIMATE ACTION	Increased carbon intensity Coastal degradation leading to climate vulnerability
Enhanced health of aquatic and marine ecosystems Increased stock abundance supporting sustainable fisheries	14 LIFE BELOW WATER	Overexploitation of aquatic and marine resources Environmental degradation
Increased water security Enhanced sustainable transboundary water sharing	15 LIFE ON LAND	Nutrient pollution Biodiversity loss
Improved governance Promotion of continental peace and security	16 PEACE, JUSTICE AND STRONG INSTITUTIONS	Resource conflicts Failure to implement and enforce laws and regulations Dutch disease and resource curse
Improved partnerships between public, private, and civil society actors Strengthened continental cooperation	17 PARTNERSHIPS FOR THE GOALS	Insufficient partnerships Bureaucratic complexity

Source: *Authors. SDG icons from https://sustainabledevelopment.un.org*

ECA has started to provide support to RECs, IGOs, and States on developing Blue Economies, and it is working with other partners, including the AU, the United Nations Environment Programme (UNEP), and the African Development Bank (AfDB), which are putting the Blue Economy at the forefront of discussions on the continent's economic future.

The steps taken in Africa to adopt a Blue Economy approach reflect a wider appreciation of its importance at the global level. This provides an opportunity to establish international, regional, and bilateral cooperation and collaboration, including public, private, and public-private partnerships (PPPs).