



OPERATIONAL BRIEF

Blue Solutions for Africa

Key Messages

BLUE ECONOMY FOR RESILIENT AFRICA PROGRAM

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1818 H Street NW, Washington DC 20433
Telephone: 202-473-1000 | Internet: www.worldbank.org

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The series of briefs was prepared by a team led by Lia Carol Sieghart (Practice Manager), Christian Albert Peter (Practice Manager), Sanjay Srivastava (Practice Manager), Maria Sarraf (Practice Manager), Iain Shuker (Practice Manager) and Africa Eshogba Olojoba (Practice Manager). The team includes Peter Kristensen (Lead Environmental Specialist), Marcelo Hector Acerbi (Senior Environmental Specialist), Sajid Anwar (Environmental Specialist), Darshani De Silva (Senior Environmental Specialist), Nagaraja Rao Harshadeep (Lead Environmental Specialist), Kanako Hasegawa (Environmental Specialist), Ede Ijjasz-Vasquez (Lead Consultant), Juliana Castano Isaza (Natural Resources Management Specialist), Federico Scodelaro (Consultant), Madjiguene Seck (Senior Partnership Specialist), Ruth Tiffer-Sotomayor (Senior Environmental Specialist), and Phoebe Girouard Spencer (Environmental Economist).

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Introduction

The Blue Economy holds great promise for accelerating the economic and sustainable development of Africa's coastal states—provided coastal activities are conducted within a management framework that protects and enhances coastal and marine ecosystems and biodiversity.

Africa's coastal communities rely on healthy marine ecosystems for their food security and livelihoods. Blue Economy activities such as coastal tourism and fisheries also depend on healthy marine ecosystems, which also improve climate resilience by enhancing biodiversity and protecting low-lying urban areas from sea-level rise.

Despite this dependence and the many other gifts that the sea offers humanity, Africa's coastal areas currently face a wide range of challenges—chief among them pollution and fisheries overexploitation—and risks such as coastal erosion and biodiversity loss. Climate change is amplifying and accelerating the effects of these challenges and risks.

Integrated, participatory, and capacitated transboundary marine resource management is needed to ensure that Africa's coastal and marine areas are healthy enough to support current economic activities while allowing for the sustainable exploration of future opportunities such as blue energy, ocean mining, and blue carbon.

The World Bank's **Blue Economy for Resilient Africa Program**, announced at the United Nations Framework Convention on Climate Change's annual Conference of the Parties (COP27), will provide multisectoral analytical, financial, and policy support to Africa's coastal countries and island states to help them leverage the opportunities—and manage the risks—inherent in scaling up their Blue Economies.

About this series of briefs

The Blue Solutions for Africa series of operational briefs captures how a thriving Blue Economy can help African countries better manage the development challenges they face while supporting economic growth, sustainable livelihoods, and the health of these precious ecosystems.

THE BRIEFS COVER THE FOLLOWING THEMATIC AREAS

- Climate change
- Coastal and marine biodiversity and habitats
- Sustainable fisheries
- Marine pollution
- Jobs and livelihoods
- Participatory marine spatial planning
- Data management and knowledge creation
- Innovative financing instruments
- Developing and incentivizing institutions
- New frontiers of innovation



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KEY MESSAGE 1

A robust Blue Economy could protect Africa from the worst effects of climate change. At the same time, the effects of climate change are already preventing the continent from achieving the full benefits of a vibrant Blue Economy.



Changing temperatures, rainfall patterns, and climate extremes are already impacting biodiversity with far-ranging consequences for species range, plant, and animal reproductive and/or migration cycles.



Temperature increases are already driving fish from tropical areas toward the poles. The fisheries most at risk are those along the Gulf of Guinea, from Gabon to Guinea-Bissau, and along Africa's east coast, from Eritrea to Mozambique.



In 2019, the African continent experienced above-average sea-level rise of five millimeters. Sea levels will almost certainly climb by half a meter by the end of the century, with regional variations on the continent.



The population inhabiting low-level, coastal areas in Africa is rising at an annual rate of 3.3 percent per year, more than double the global average. This is partly driven by repetitive drought in Mediterranean areas. By 2050, between 72 million and 94 million people are expected to inhabit several of West Africa's low-lying urban centers.



With World Bank Group support, various African countries are taking ambitious climate action, with a strong focus on increasing adaptation and resilience, leveraging private sector finance, and supporting increased systemic climate action at the country level.



Find out more in our brief on **The Blue Economy and Climate Change**



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KEY MESSAGE 2

To develop a resilient Blue Economy, the African continent needs to better protect and manage its biodiversity and habitat to enhance ecosystem services.



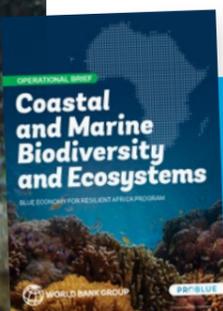
Better monitoring of the ocean's physical and biological changes will be key. Improved coastal and marine data and knowledge will inform co-created management decisions.



Governance also plays an important role. Coastal areas and territorial waters are under the jurisdiction of several agencies that lack sufficient coordination and incentives to improve the management of natural resources. Marine spatial planning is an important tool to improve such governance.



On-the-ground enforcement and monitoring also need to be improved. Countries along the African coastline desperately need to regain control over their exclusive economic zones through at-sea patrolling of their open waters.



Find out more in our brief on **Coastal and Marine Biodiversity and Ecosystems**

KEY MESSAGE 3

A resilient Blue Economy relies on healthy, pollution-free marine and coastal ecosystems.



A coordinated set of actions is needed to achieve required systemic change for a circular economy. These actions need to take place upstream and downstream of the value chains.



The solutions include promoting a circular economy approach, improving solid waste infrastructure and services, and strong monitoring of plastic pollution for proactive action and removal. For wastewater, the use of practical low-cost technologies, with an emphasis on circular economy approaches, is gaining attention.



A broad range of innovative finance options will be needed to implement these solutions.



Better oil spill detection and monitoring are needed to better manage oil spills. A clear regulatory framework and national response systems (with regional coordination and cooperation), along with contingency plans and training, are needed to improve the response when such spills are detected.



Find out more in our brief on **Marine Pollution**

KEY MESSAGE 4

Africa's coastal economies need to put in place effective measures to protect their marine and coastal resources, especially their fisheries.



These measures include putting in place strong and effective policy and regulatory frameworks, which could include forming new marine protected areas and/or no-take zones.



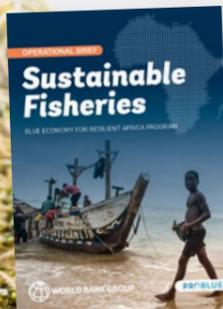
Implementing these measures will build resilience to climate change, enhance food security, support the sustainable livelihoods of vulnerable fishing communities, and facilitate the creation of more and better jobs within the fishery value chain.



Stronger capacity for sustainable fisheries management could involve working with fish farming communities to adopt climate-resilient aquaculture or mariculture, and implementing climate adaptation programs to strengthen the fisheries value chain.



Through regional cooperation and coordination are needed to limit the negative and enhance the positive externalities generated by national actions.



Find out more in our brief on [Sustainable Fisheries](#)

KEY MESSAGE 5

Marine spatial planning is a powerful tool for effective, participatory coastal and marine management.



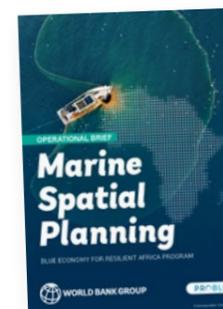
Given the centrality of climate change as an amplifier of current risks and pressures on coastal environments, climate-informed marine spatial planning (MSP) considers current and future climate risks and opportunities during the design, planning, and implementation of programs.



MSP can help design coordinated coastal resilience programs at scale and identify possible low-carbon development and growth pathways. This type of spatial planning can integrate measures articulated in nationally determined contributions and other instruments, budget for those measures, and monitor their progress.



Climate-informed MSP can help the private sector better understand climate risk and invest in mitigation and adaptation measures to reduce it and improve profitability, while respecting the space required to maintain a healthy and productive coastal environment.



Find out more in our brief on [Marine Spatial Planning](#)





KEY MESSAGE 6

To develop a resilient Blue Economy, the African continent needs coordinated institutions with the necessary skills and capacity, backed by clear mandates.



Horizontal coordination can be improved by developing adequate institutional frameworks to guide planning and activities across various sectors, levels, and jurisdictional boundaries.



A sustainable Blue Economy requires spatial coordination of coastal territories to avoid compounding risks and to leverage development opportunities across sectors for multiple economic and livelihood benefits.



Vertical coordination across national and subnational blue sector institutions also needs to be improved.



Coordinated, integrated information systems will strengthen data and knowledge creation and dissemination to support decision-making.



Thematic coordination involves identifying common development challenges that require coordinated action across agencies at the national and local level. Climate change adaptation, jobs, and livelihoods are important examples of such shared challenges.



Find out more in our brief on [Developing and Incentivizing Institutions](#)

KEY MESSAGE 7

Africa's coastal countries and regional entities need greater investment into technologies that streamline the collection, management, and analysis of data to improve marine knowledge and better track of the state of marine and coastal resources.



Many new technologies are revolutionizing the way data is collected, processed, and visualized for decision support. A new range of satellite and air-based Earth observation options are complementing traditional and modernized in-situ observations to provide more comprehensive, synoptic, and quasi-real-time data.



Beyond data technologies, it will be important to move up in the data value chain to produce accessible knowledge products that support informed decision-making.



Data is increasingly processed using the power of the cloud, moving away from legacy desktop systems to leverage the power of machine learning and artificial intelligence tools.



Improving the organization of—and strengthening access to—data and knowledge among governments, the private sector, academia, civil society organizations, financiers, and the public will help generate multisectoral, spatial, and sustainable development insights and attract more financing, including from the private sector and other development partners.



Find out more in our brief on [Knowledge, Data and Information](#)

KEY MESSAGE 8

The Blue Economy has the potential to create jobs for Africa's growing population while contributing to climate adaptation and mitigation action.



Adopting new technologies and innovative partnerships will drive the creation of such jobs in various emerging sectors.



Marine renewable energy is particularly attractive because it is scalable, has high political and public acceptance, and presents strong potential for job creation, direct investment, and local economic development.



The blue bioeconomy—which turns microorganisms, algae, and invertebrates into food, pharmaceuticals, cosmetics, energy, textiles, and more—also holds promise.



Aquaculture is projected to continue to grow rapidly, and if done sustainably, can serve as a major source of food and a cornerstone of the Blue Economy.



Traditional sectors like fisheries and coastal tourism will continue to play a key role in jobs creation.



Find out more in our brief on [Jobs and Livelihoods in the Blue Economy](#)

KEY MESSAGE 9

Fully implementing a Blue Economy approach in Africa requires scaling up the financial resources available.



African nations need to spend as effectively as possible the limited resources available to them by leveraging coordination and sustainability.



Many African countries would also benefit from accessing the World Bank's full range of finance instruments, which spans grant financing, debt, and equity financing. Technical assistance or grant financing is often required to undertake the analytics and diagnostics needed to identify policy improvements.



The private sector has an important role to play in developing Africa's Blue Economy. Several financial instruments can encourage partnership with the private sector, each of which have a different purpose with different requirements.



The World Bank is available to help countries with mobilizing capital for investments. It also provides technical support and learning from its portfolio of more than US\$7 billion of ongoing investments in oceanic and ocean-related sectors.



Find out more in our brief on [Financing Options and Instruments](#)



Changing the growth trajectory of the Blue Economy in Africa toward a sustainable and resilient path will require ongoing innovation in several areas.



Technological innovations—from satellite monitoring and early warning systems to artificial intelligence and quantum computing—need to be at the core of Africa's future Blue Economy.



Innovative scientific and research partnerships are needed to understand the current and future state and trends of the coastal and marine environment, and the projected impacts of climate change. Academic scientific understanding needs to be translated into solutions at a faster pace.



New methods to engage meaningfully with communities, businesses, and governments to co-create sustainable local solutions will need to be explored.



A larger flow of financial resources from development partners and transfers from central governments will be required to achieve sustainable development in coastal and marine areas. However, this will not be enough. Financial instruments that mobilize additional resources from the private sector, blended finance instruments that leverage limited government resources and donor funds, and a supportive regulatory framework to reach global climate and carbon funds will all be needed to achieve success.



Find out more in our brief on [New Frontiers of Innovation](#)



