Africa's green & blue wealth

The continent's central role in a global low-carbon future



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Unearthing Africa's extraordinary natural assets

Africa's extraordinary wealth in biodiversity and ecosystem services constitutes a strategic asset for sustainable development both at regional and global levels.

Africa is home to:

- Almost one quarter (8) of the world's 36 biodiversity hotspots the Earth's
 most biologically rich and threatened areas with large numbers of endemic
 or threatened species. They include the Cape Floristic Region, the Eastern
 Afromontane, the Coastal Forests of Eastern Africa, the Guinean Forests
 of West Africa, Madagascar and the Indian Ocean Islands, the MaputalandPondoland-Albany Hotspot, the Mediterranean Basin, the Horn of Africa,
 and the Succulent Karoo.
- 369 wetlands of international importance.
- 142 UNESCO World Heritage Sites.
- 1,255 important bird and biodiversity areas.
- 158 Alliance for Zero Extinction sites where endangered or critically endangered species live.

The story of Africa's natural assets needs to be told. Without this, the true value of the continent's biodiversity contributions to human well-being will continue being overlooked in global decision-making processes.

Africa's unique biodiversity is a critical asset towards the continent's achievement of Sustainable Development Goals 14 ('Life Below Water') and 15 ('Life on Land'), and can equitably be used to reduce poverty for its people.

At the same time, \$29 billion a year are reportedly lost in Africa from illegal logging, fishing and trade in wildlife.

Africa has the opportunity to fully realise the benefits of its rich biodiversity and explore ways of using it in a sustainable way to contribute to its economic development.

"The alignment of Agenda 2063 goals, Sustainable Development Goals and the Aichi Biodiversity Targets, for the conservation of biodiversity and nature's contributions to human well-being in Africa, facilitates the development of interventions that can achieve multiple positive outcomes" (Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, 2018).

To protect the African ecosystems that are of great ecological, biological and cultural importance both regionally and globally, African countries have classified as protected 14% of the continent's land and 2.6% of the seas within national jurisdiction, while some sites have been designated as important or for special conservation reasons.

Africa is home to almost one quarter of the world's 36 biodiversity hotspots

Africa's green wealth: arable land, biodiversity, carbon sinks

Africa is home to:

- Five subregions under different climate conditions.
- About one fifth (20.2%) of the world's land, almost two thirds (65%) of its arable land, around one sixth of the world's remaining forests.
- Key carbon sinkholes for the global climate fight. Among those, the Congo Basin forests of Central Africa constitute the world's first tropical carbon sink.
- One quarter of the world's mammal species and the last significant assemblage of large mammals, one fifth of the world's bird species, and at least one sixth of the world's plant species.
- Many food crops that are of African origin (species of wheat, barley, millet and sorghum, teff, coffee, cowpea, and oil palm).

Africa: biodiversity assets in terrestrial ecosystems (2022)



The Congo Basin forests of Central Africa: a key carbon sinkhole for the world

The Congo Basin forests of Central Africa, the world's second largest rainforest after the Amazon, cover a massive expanse of over 180 million hectares, spreading across the DR Congo, most of Congo Republic, the southeastern reaches of Cameroon, southern Central African Republic, Gabon and Equatorial Guinea.

They are now the world's first tropical carbon sink, absorbing more carbon than in the Amazon and Southeast Asia combined.

They are estimated to contain between 25-30 billion tonnes of carbon – roughly equal to 4 years of current global anthropogenic carbon dioxide emissions.

Africa is home to about 1/5 of the world's land, almost 2/3 of its arable land, around 1/6 of the world's remaining forests

Despite being the world's second largest rainforest after the Amazon, the Congo Basin forests of Central Africa are now the world's first tropical carbon sink, absorbing more carbon than in the Amazon and Southeast Asia combined

- Drylands and deserts
- Mediterranean forests, woodlands and scrub
- Tropical and subtropical dry and humid forests
- Tropical and subtropical savannas and grasslands
- Tundra and high mountain habitats

Source: MIF based on Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services They absorb an estimated 1.1 billion to 1.5 billion tonnes of carbon dioxide annually – approximately 4% of global carbon emissions, offsetting more than what is emitted by the entire African continent annually.

Over half of the carbon is stored within the forests of the DR Congo – the fourth largest forest carbon reservoir of any country in the world.

Despite this, over a period of 15 years (2000–2014), the Congo Basin lost around 165,000 km2 (an area of forest bigger than Bangladesh), mainly due to the demand for those trees critical for wood fuel, the main driver of tropical forest degradation.

At current rates of deforestation, all Africa's primary forest will be gone by 2100.

Annually, the Congo Basin offsets more than the total carbon emitted by the African continent

Africa's blue wealth: oceans, freshwater ecosystems, coral reefs

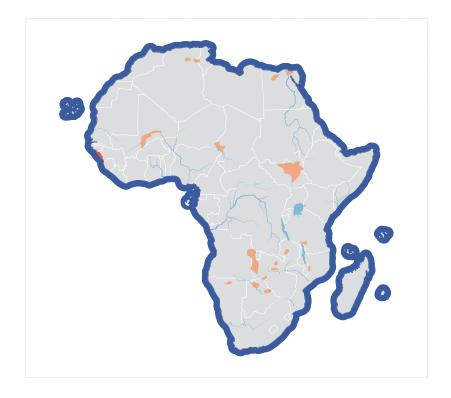
Africa is home to:

- Diverse wetlands, inland surface waters and water bodies, rivers, lakes
 and estuaries. There are 63 international river basins covering
 approximately 64% of the continent's land area. Wetlands constitute 1%
 of Africa's total land surface area (Sudd in South Sudan and Okavango
 in Botswana are among the world's biggest).
- Six out of the world's 66 large marine ecosystems: the Agulhas Current, the Somali Current, the Benguela Current, the Canary Current, the Guinea Current and the Mediterranean. Three of these six large marine ecosystems rank within the four most productive large marine ecosystems in the world.
- East Africa's coral reefs, extending along the coasts of Kenya, Tanzania, and northern Mozambique that constitute around 5% of the planet's total coral reef area.

second-largest and longest rivers and aquatic areas in the world (the Nile and the Congo)

Africa is home to the

Africa: biodiversity assets in marine & freshwater ecosystems (2022)



The African Great Lakes account for 27% of surface freshwater, the largest proportion in the world

- Flooded grasslands and savannas
- Mangroves
- Inland surface waters and water bodies
- Coastal areas and near shore ecosystems

Source: MIF based on Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services

Marine Protected Areas (MPAs) approach: only 7.4% of ocean surface protected globally

According to the International Union for the Conservation of Nature (IUCN), more than 70% of the planet's surface is covered by the oceans but only 7.4% of it is protected.

The protection of critical ocean ecosystems such as coastal wetlands, seamounts, seagrass beds, tropical coral reefs and deep-water cold coral reefs was prioritised under the marine protected areas (MPAs) approach.

When it comes to MPAs, Africa and especially the east-coast rim, have lots of good practices to share with the world.

In the Western Indian Ocean, MPAs go back to some 54 years ago when the first such area was gazetted at Nosy Tanikelly in Madagascar in 1966. Kenya followed suit when it gazetted three MPAs in 1968. Tanzania established its own in 1969.

Currently, there are 74 gazetted Marine Protected Areas covering 133,273 sq km in the Western Indian Ocean (government-funded and run under a top-down approach where the government has the conservation mandate).

However, community-managed marine parks – the smaller and effective 'bottom-up' approach- are increasingly preferred over the large government-run ones. Community marine parks' success stories continue to increase. Madagascar hosts 35 community marine parks. Today Kenya boasts 14 community-run marine areas, complementing the government's nine MPAs.

According to the Western Indian Ocean Marine Science Association (WIOMSA), the region hosts 63 community-managed marine parks spread across Kenya, Madagascar, Mozambique and Tanzania covering some 15,649 sq km – the equivalent to 3.8% of the Western Indian Ocean.

Barren Isles Archipelago in Madagascar, set up in 2014, remains the largest community marine park covering some 4,300 sq km. Africa is surrounded by two oceanic expanses (Atlantic Ocean and Indian Ocean), and by two semi-enclosed seas (the Mediterranean Sea and the Red Sea)

Mineral and energy resources

Africa holds a huge proportion of the world's natural resources, both renewables and non-renewables.

- It is home to about 30% of the world's proven mineral reserves with a large part of these resources located in its maritime zones (both internal and offshore).
- Its natural gas reserves amount to about 7% of the world's reserves, and its oil reserves amount to about 8% of the world's reserves.
- The continent has 40% of the world's gold and up to 90% of its chromium and platinum.
- The largest reserves of cobalt, platinum, manganese, lithium and uranium, all key to the building of a global green economy, are in Africa.

The vast reserves of minerals such as cobalt, manganese and platinum make Africa one of the key players in global resource geopolitics

Africa's green and blue economy for new jobs and climate change goals

Green economy

A 'green economy' is one that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities. In its simplest expression, a 'green economy' is low-carbon, resource-efficient and socially inclusive. In a 'green economy', growth in income and employment are driven by public and private investments that reduce carbon emissions and pollution, enhance energy and resource efficiency, and prevent the loss of biodiversity and ecosystem services.

Many African countries have the potential to build thriving green economies which could support climate change mitigation and adaptation, as well as environmental sustainability.

The green opportunities available to the continent in a world transitioning to net zero are diverse and can unlock new development in Africa.

However, this potential cannot be realised without the appropriate conditions: additional and diversified financial resources, relevant skills, continental solidarity and sound governance.

Some of Africa's key green opportunities are the following:

Minerals for green technologies

Africa's vast mineral reserves will be critical to renewable and low-carbon technologies, including solar, electric vehicles (EVs), energy storage, green hydrogen, and geothermal.

Production of minerals such as graphite, lithium and cobalt, could increase by nearly 500% by 2050 to meet the growing demand for clean energy technologies.

Energy access and affordability

Renewable power can help provide electricity access to the 600 million people in Africa who are still without it, a key development objective, and keep grid power costs low as demand increases, which is critical to sustain economic growth.

Expanding renewable power across the continent could generate 190,000 direct and 160,000 indirect jobs in solar by 2030 – even if manufacturing does not take place in Africa- and 60,000 direct and 50,000 indirect jobs in the wind industry.

Green manufacturing

A low-carbon pathway for African manufacturing is critical to create socio-economic value, as well as to support climate change mitigation and adaptation.

Recent McKinsey research shows that eight high-potential green manufacturing opportunities could collectively generate between \$5 billion and \$10 billion in revenue for Africa and create 800,000 jobs while abating 70 million tonnes of carbon dioxide in greenhouse gas emissions by 2030.

Africa has the world's largest reserves of cobalt, platinum, manganese, lithium and uranium, all critical to a global low-carbon future

Renewables and other energy transition-related technologies have already created 1.9 million jobs across Africa, a number that will grow substantially as countries invest further in the energy transition

For example, the establishment of a cross-laminated timber industry in Africa – a low-carbon alternative to cement and steel in the construction industry-could create more than 100,000 jobs by 2030 across the value chain and over 3 million jobs in the longer term.

Conservation agriculture

Evidence from a UNDP study in Zimbabwe shows that up to 30,000 jobs were created for every one million dollars invested in conservation agriculture. This is a climate resistant form of agriculture that can help mitigate the continent's food security crisis, while capturing carbon from the atmosphere. Conservation agriculture has the potential to sequester up to 372 million tonnes of carbon dioxide from the atmosphere per year globally.

Eco-tourism

Gabon plans to combine conservation of its stretch of the Congo Basin Rainforest, which alone sequesters roughly 140 million tonnes of carbon per year, with a high value eco-tourism sector. This follows the successful examples set by Uganda and Rwanda.

Sustainable forestry

Forestry activities, including conservation and reforestation, can be both a job creator and a vital tool for carbon capture. Nigeria's reforestation drive, initiated in 2019 by the government, is projected to create 20,000 jobs and capture 565,000 tonnes of carbon per year.

Circular economy

While products and resources are made, used and disposed of in a 'linear economy', in a circular economy they are recycled, repaired and reused. Africa has significant job opportunities in the recycling of garments, plastics, agricultural, and e-waste, with the latter presenting an opportunity to move informal workers into the formal economy.

Great Green Wall

The project of the Great Green Wall, planting 8,000 km of trees spanning the entire width of Africa to restore land, was born in the 1970s when the Sahel started to degrade and gained momentum in the 1980s. However, it was only in 2007 that the African Union started to put the idea into reality, working with more than 20 African countries

Planned to span from Senegal to Djibouti and covering a total of 11 African countries, the key objectives of the Great Green Wall by 2030 are:

- · Restore 100 million hectares of degraded land
- Sequester 250 million tons of carbon
- Create 10 million green jobs by 2030 for rural communities living along the Wall

In Africa, eight highpotential green industries could collectively generate between \$5 billion and \$10 billion in revenue and generate 800,000 jobs by 2030 according to McKinsey research

Conservation agriculture has the potential to sequester up to 372 million tonnes of carbon dioxide from the atmosphere per year globally

Overall, in 2019 travel and tourism in Africa contributed a total of 7.1% to Gross Domestic Product (GDP), as well as 24.6 million jobs

Nigeria's reforestation drive, initiated in 2019, is projected to generate 20,000 jobs and capture 565,000 tonnes of carbon per year Besides contributing to climate action, the Great Green Wall is set to contribute to food and water security, the fight against poverty, sustainable energy and economic opportunities. It supports 15 of the 17 Sustainable Development Goals (SDGs).

Despite some successes, such as reaching 11 million people with income-generating activities and creating 335,000 jobs, a status report from September 2020 shows that only between 4 million and 17.8 million hectares have been restored so far, way off the 100 million 2030 goal.

While facing several challenges such as a lack of monitoring and evaluation, the funding situation of the Great Green Wall is an initial major hurdle. In order to achieve the 2030 restoration objective, the project requires between \$36 billion and \$43 billion until 2030.

In January 2021, French President Emmanuel Macron announced the Great Green Wall multi-actor Accelerator in order to facilitate coordination and collaboration of donors and stakeholders and to improve monitoring efforts. Following the announcement, over \$19 billion until 2025 have been pledged by international donors to support Africa's Great Green Wall.

OPEC of rainforests

At the COP27 (November 2022, Sharm el-Sheikh), the big three tropical rainforest nations – Brazil, Indonesia and Democratic Republic of Congo – announced an "Opec for rainforests", a strategic alliance to coordinate on their conservation efforts.

The three countries are home to the Amazon, Congo basin and Borneo and Sumatra forests – representing 52% of the world's remaining primary tropical forests –. While these carbon sinks are crucial for the planet to avoid climate catastrophe, they are threatened by commercial logging, mining and illegal exploitation.

Via this alliance, the rainforest countries, which had already signed an agreement at COP26 in Glasgow to halt and reverse deforestation by 2030, may make joint proposals on carbon markets and finance, encouraging developed countries to fund their conservation. The latter is fundamental to ensure that global heating does not go beyond 1.5C above pre-industrial levels.

Conservation models and human right violations in sub-Saharan Africa

Eastern and Southern Africa has 5,232 protected areas covering approximately 2,120,112 km2 of the land and 473,815 km2 of the ocean. These protected areas in Africa host a vast variety of the world's biological and natural resources, including seven of the world's biodiversity hotspots.

According to Survival International, 80% of Earth's biodiversity is located in territories of indigenous peoples, who also enjoy rights over the land they occupy. Local communities are increasingly being deprived of their land forcefully for purposes of conservation.

Most of the world's 6,000 national parks and 100,000 protected places have been created following the displacement of local indigenous communities. In Africa, the negative impact of conservation on indigenous people have been highlighted in Tanzania, Kenya, Uganda, Namibia, Botswana, Ethiopia, South Africa.

The current mainstream conservation models witnessed in Africa are not people-centric and to a large extent violate human rights. It equally seeks to exclude local communities from participating in climate change dialogue through conservation. Indigenous communities have developed significant bodies of knowledge on how to cope with local climatic shifts. These practices can help guide the design of mitigation measures that involve carbon sequestration, forest conservation, and other environmental and social benefits.

Blue economy

The Blue Economy has now become a major development pillar all around the world. However, it was Africa where the concept originated.

Former President of Seychelles James Michel was its originator and strongest advocate. In 2008, he had already transformed his country's strategies for economic transformation and foreign policy to leverage on oceans under the 'Blue Economy' banner.

At the UN's Conference on Sustainable Development in Rio de Janeiro in 2012, the Blue Economy found its way on to the global agenda. As a result, the negotiated document "Green Economy in a Blue World" was one of the outcomes of Rio+20.

In 2014, Seychelles' 'Blue Economy Vision' was launched, promoting ocean-based resilience and sustainable development.

After making an indelible mark in the final outcome document of the third International Conference on Small Island Developing States (SIDS), which took place in Samoa in 2014, France allied with President James Michel to lobby the world ahead of COP21 (2015 Paris Climate Conference). Thanks to this partnership, the Alliance of Small Island States (AOSIS) was able to achieve most of its priorities when the Paris Agreement was passed in December 2015. This was a major diplomatic success for Seychelles.

The concept of the Blue Economy was born in the Seychelles.

The Blue Economy concept brings environment and economy together, within a new framework. It 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, and also landlocked states, benefit from their resources. It also requires an integrated, holistic and participatory approach that includes sustainable use and management. 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 value of oceans

A 2015 report released by the World Wildlife Fund (WWF), the University of Queensland and the Boston Consulting Group estimated that **key ocean** assets were valued at \$24trn.

According to the Pew Charitable Trust, the ocean generates economic benefits worth \$2.5trn annually.

Ocean, seas and marine resources are central to achieve the Goals contained in the 2030 Agenda for Sustainable Development. A sustainable Blue Economy aims to foster economic growth, responsible production and consumption, social inclusion, as well as the preservation or improvement of livelihoods and environmental sustainability of the ocean and coastal areas.

According to UNECA's 2019 issues paper focused on the opportunities and challenges of Africa's Blue Economy, some of Africa's blue economy opportunities are the following:

- Seaports.
- Intermodal and multimodal transport.
- African fleet, shipbuilding and ship repair.
- · Global connectivity, logistics and modern supply chains.
- Tourism and recreation.
- Fisheries and aquaculture.
- Deep-sea mining and renewable 'Blue Energy'.

Collectively, oceans are the seventh largest economy in the world, generating economic benefits worth \$2.5trn annually

Linkages between development of the Blue Economy and the 2030 Agenda for Sustainable Development

Potential POSITIVES of proper development of the Blue Economy

Improved livelihoods and employment Investment in enterprises

Enhanced sustainable food production Improved food distribution

Improved water quality
Increased funding to health services
Improved occupational safety of seafarers

Enhanced knowledge infrastructure Increased funding for the education sector Skill development

Increased equal rights to economic resources Increased participation in decision making

Increased funding for access to clean water and sanitation

Investments in nature-based water provision services

Enhanced access to renewable energy Improved knowledge base to build and maintain infrastructure

Job creation

Economic diversification

Increased and improved infrastructure Technological progress

Ennhanced benefit distribution

Enhanced participatory engagement of all stakeholders

Improved cycling, harvesting, and use of water Cities have access to clean renewable energy

Removal of inefficient fossil-fuel subsidies Promotion of more equitable trade of goods and services

Transition to low-carbon economies

Resilience to uncertain climate future

Enhanced health of aquatic and marine ecosystems Increased stock abundance supporting sustainable fisheries

Increased water security

Enhanced sustainable transboundary water sharing

Improved governance

Promotion of continental peace and security

Improved partnerships between public, private, and civil society actors
Strengthened continental cooperation

SDG Goals Potential NEGATIVES of improper development of the Blue Economy



Space conflicts Marginalisation



Increased food waste

Harmful commoditisation of food



Pollution

Weak revenue capture at national level



Outsourcing of skilled labour Unwillingness to invest in local training and education Brain drain



Increased gender disparity in wages Proliferation of income gap



Water pollution

Destruction of nature-based water provision services



Continued incentivisation of carbon-based energy Population displacement Environmental impacts



Wealth concentration

Over-reliance on quantitative growth



Environmental impacts

High dependency on technology



Business as usual

Pollution

Concentration of influence



Increased pressure on freshwater resources



Unsustainable production practices



Increased carbon intensity

Coastal degradation leading to climate vulnerability



Overexploitation of aquatic and marine resources Environmental degradation



Nutrient pollution

Biodiversity loss



Resource conflicts

Failure to implement and enforce laws and regulations Dutch disease and resource curse



Insufficient partnerships
Bureaucratic complexity

The table below presents an exhaustive list of Blue Economy sectors and their related type of ecosystem and services:

Blue Economy ecosystem and services and Blue Economy sectors

Type of ecosystem and 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, comestics, genetic research
Extraction of non-living 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: MIF based on UNECA

Seychelles: the world's first sovereign blue blond

The Seychelles' Blue Economy is an innovative, holistic policy to sustainably grow an integrated, ocean-based economy. It embraces the value of the ocean – not just in economic terms but also in terms of climate change, sustainability and security. To support sustainable marine and fisheries projects, Seychelles launched the world's first sovereign blue bond in 2018, raising \$15 million from international investors.

The bond supports the extension of marine protected areas up to 30% of the country's exclusive economic zone (EEZ). Moreover, it aims to enhance governance of priority fishers and development of the blue economy of the Seychelles. The main beneficiaries are the Seychellois whose livelihoods depend on marine resources and the ocean. These include artisanal and semi-industrial fisheries, tourism operators and operators engaged in seafood value chains, etc.

Ocean economy's contribution in Mauritius

In Mauritius, there are three main ocean economy sectors: the seaside tourism industry, port activities as well as the fishing industry. While the Eastern African island's ocean economy contributed 21,000 jobs and 14% of GDP in 2015, it is projected to contribute 35,000 jobs and 20% of GDP in 2025.

Facts and figures about oceans in Africa

- 38 number of coastal states and island states.
- 90% volume of imports & exports conducted by sea.
- \$100 billion estimated value added generated by coastal tourism by 2030.
- 49 million number of jobs currently generated in the blue economy sectors.
- \$405 billion projected value of African blue economy by 2030.

African coastal and island states have jurisdiction over a maritime zone totalling 13 million sq km counting territorial seas and 6.5 million sq km of the continental shelf

Despite the African origin of the Blue Economy concept and even though Africa is home to some of the potentially richest oceans around its extensive coastline, the surface of this extraordinary boon has hardly been scratched on the African continent. Key challenges include climate change, plastic pollution and maritime security.

Climate change threatens the integrity and sustainability of the aquatic and marine resources on which the Blue Economy is based:

- Swathes of Africa have experienced climate changes, sea level rises, coastal erosion, saltwater intrusion, warming seawaters, ocean acidification, coral bleaching and a rise of invasive species.
- Physical and biological changes have led to declines in fish stock.
 Subjective evidence from Guinea-Bissau shows that a reduction in precipitation and increase in temperatures have contributed to a reduction of some lake species.

Plastic pollution constitutes a major threat to both aquatic and marine ecosystems. It affects all Blue Economy sectors, notably fishing and tourism, and can affect humans via food chains.

- Marine plastic pollution has increased tenfold since 1980, with 300-400m tons of heavy metals, solvents, toxic sludge and other waste from industrial facilities being dumped annually into the world's waters.
 Fertilisers entering coastal ecosystems have produced more than 400 ocean 'dead zones' totalling more than 245,000 square kilometres.
- Greenhouse gas emissions, untreated urban and rural waste, pollutants from industrial, mining and agricultural activities, oil spills and toxic dumping have negatively affected freshwater and marine water quality.

Coral reefs in the western Indian Ocean are at risk of extinction by 2070 due to warming temperatures and overfishing, with a roughly 12,000 km2 expanse of coral reefs facing ecosystem collapse

Sea level rise will lead multiple African countries, especially in West Africa, to suffer floods and coastal erosion **Maritime security** is a necessary condition for the development of the Blue Economy according to the 2016 Lomé Charter and the African Union's "Africa's 2050 Integrated Maritime Strategy".

- Criminal activities including piracy and robbery at sea, illicit trafficking
 of goods and people, as well as environmental crimes, undermine the
 sustainable use of Blue Economy resources, negatively impacting the
 human and economic development of the continent.
- According to One Earth Future, the Gulf of Guinea, which is located on the West African coast, is now the most dangerous in the world due to piracy.
- Strengthened cooperation between countries in the region and relevant regional organisations would help in reducing threats at the Gulf of Guinea and the South Atlantic Ocean.
- The 1999 Abuja Memorandum of Understanding seeks to harmonise the port state control procedures and practices of the West and Central African region in order to ensure maritime safety and security, and protection of the marine environment from pollution

African fisheries still underdeveloped

In 2011, fisheries and aquaculture contributed \$24 billion to the African economy, accounting for 1.3% of the total African GDP. A study showed that Africa contributed to 9% of global catch. In 2015, production amounted to 11 million tonnes, of which 5.5 million tonnes came from wild catch. The total African production represented 5% of global fish production. In 2017, total African imports of fishery products accounted for a value of \$5.6 billion, while exports accounted for \$6.5 billion.

Despite these figures, the continent's fisheries industry is still underdeveloped. It is still dominated by small-scale, basic local fishers who cannot compete against the industrial-scale fishing that international fleets carry out in international waters. As a result, one-quarter of all marine catches around Africa are still done by non-African countries. Optimal development of fishing and aquaculture activities remains a major challenge for African countries.

Deep-sea mining and renewable 'Blue Energy' largely unexploited

The ocean and seas of Africa have great potential and opportunity to develop both non-renewable (oil and gas) and renewable energy sources (including wind, tidal and wave), of which only a small fraction has been exploited until now. For instance, the major currents within the African continent, such as Azores, Canary, Benguela, Agulhas, South Equatorial, Guinea, Mascarene and even the East African coastal currents, have yet to be tapped and utilised for the continent's clean tidal energy.

In Africa, glaciers on the Rwenzoris (DR Congo/Uganda) and Mt. Kenya (Kenya) are projected to disappear by 2030, and by 2040 on Kilimanjaro (Tanzania)

Since 1980, marine plastic pollution has affected at least 267 species, including 86% of marine turtles, 44% of seabirds and 43% of marine mammals

Water pollution has become a leading cause of death and disease in Africa, with the lack of improved water sources and sanitation facilities paving the way for the outbreak of diseases such as cholera

According to the International Maritime Bureau, the Gulf of Guinea in 2020 recorded 84 attacks on ships

Great Blue Wall

At the COP26, which took place in November 2021 in Glasgow, Western Indian Ocean states and partners launched the Great Blue Wall initiative to set up a network of marine and coastal conserved areas to benefit biodiversity and local livelihood.

Through ocean conservation, the initiative will benefit at least 70 million people across the ten countries to which the Western Indian Ocean provides security, sustains economic growth, regulates the climate, and provides livelihoods for coastal communities: Comoros, France, Kenya, Madagascar, Mauritius, Mozambique, Seychelles, Somalia, South Africa and Tanzania.

The Great Blue Wall initiative is aimed at protecting 30% of the ocean by 2030; achieving net gain of critical blue ecosystems by 2030 (e.g. mangroves, corals, seagrasses); developing a regenerative blue economy and generating millions of jobs by supporting local communities through funding, training and technical assistance.

Conclusions

Africa's natural wealth, be it green, blue or mineral, consistently showcases the central role that the continent can play in a global low-carbon future. The first challenge is to unearth this potential. Without this, the true value of the continent's biodiversity contributions to human well-being will continue being overlooked in global decision-making processes.

Secondly, properly managed, this ecological and mineral wealth could generate net gains for the continent, including gains in fiscal revenues and foreign exchange, but also local jobs in core sectors, such as ecotourism or in new plants for processing and manufacturing raw materials on the continent.

Thirdly, Africa's carbon sequestration should be properly assessed, and its contributions to Africa and the world should be fairly compensated.

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