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The blue economy: issues and development
L'économie bleue : enjeux et Development

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ABSTRACT: A blue economy must be considered in relation to international agreements relating to the oceans, on a global scale. The oceans are particularly threatened by plastic pollution. Every year, around 8 million tonnes of plastic from land-based sources end up in the oceans. Micro plastics are found all over the world, in the food chain, air, oceans, rainwater and ice in the Arctic. Plastic pollution damages economies, ecosystems and food security, and could impact public health. The fight against plastic pollution is complex, multi-sectoral and specific to each country; it requires putting an end to waste by improving solid waste management, creating circular economies (following the "3R" principles: reduce, reuse, recycle) and encouraging cleaning and waste collection.
Keywords: pollution; technologies; circular economies; blue economy.
Jel Classification Codes : Q52, Q53, O32, O14
Résumé : Une économie bleue doit être envisagée en relation avec les accords internationaux relatifs aux océans, à l'échelle mondiale, Les océans sont particulièrement menacés par la pollution plastique. Chaque année, environ 8 millions de tonnes de plastique provenant de sources terrestres finissent dans les océans. On retrouve des micro plastiques dans le monde entier, dans la chaîne alimentaire, l'air, les océans, l'eau de pluie et la glace dans l'Arctique. La pollution par le plastique porte atteinte aux économies, aux écosystèmes et à la sécurité alimentaire, et pourrait avoir des répercussions sur la santé publique. La lutte contre la pollution plastique est complexe, multisectorielle et spécifique à chaque pays ; elle nécessite de mettre un terme aux rejets en améliorant la gestion des déchets solides, en créant des économies circulaires (suivant les principes des « 3R » : réduire, réutiliser, recycler) et en encourageant le nettoyage et le ramassage des déchets.
Mots clés : pollution ; technologies ; économies circulaires ; économie bleue
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1. Introduction:

Through effective management, the sustainable exploitation of the resources of oceans, seas, lakes and rivers - also called the blue economy - could contribute $1.5 billion to the global economy. This is the conclusion of the Conference on Sustainable Blue Economy in Nairobi, Kenya, organized by Kenya, Canada and Japan, Under the theme "The Blue Economy and the 2030 Agenda for Sustainable Development", The conference examined new technologies for oceans, seas, lakes and rivers and the challenges, opportunities, priorities and potential partnerships.

Oceans not only provide jobs and food, but they also support economic growth, regulate the climate and contribute to the well-being of coastal communities. Many people around the world, especially the poorest, depend on healthy oceans for work and food. It is therefore more than urgent to exploit, manage and sustainably protect this natural resource.

Problem: What are the challenges of the blue economy?

2. Introduction to The Blue Economy.

The economy linked to the sea is today seen as a source of new job-creating activities. The concept put forward – the blue economy – underlies sustainable use of marine resources for the benefit of economic development and the well-being of the populations concerned. This is based on achieving and then maintaining healthy, clean and productive seas. The blue economy covers many areas. Firstly, traditional maritime activities: maritime transport of goods, fishing and aquaculture, cruises and yachting, coastal tourism, shipbuilding and ports, coastal engineering, exploitation of offshore mineral resources. There are also sectors considered to have high potential for innovation: marine biotechnologies, marine renewable energies, maritime surveillance, etc. (https://www.centraliens-lyon.net/technica/article/les-entreprises-d-une- sustainable-blue-economy/306, 2023)

The concept of the blue economy, relating to the use and conservation of aquatic resources and ecosystems, is increasingly put forward to promote sustainable development of islands (Failler, P. & S. Phang , 2020). If traditional sectors, such as seaside tourism, commercial and recreational fishing, maritime transport occupy the forefront of the economic scene, many emerging sectors such as biotechnology, marine renewable energies, deep

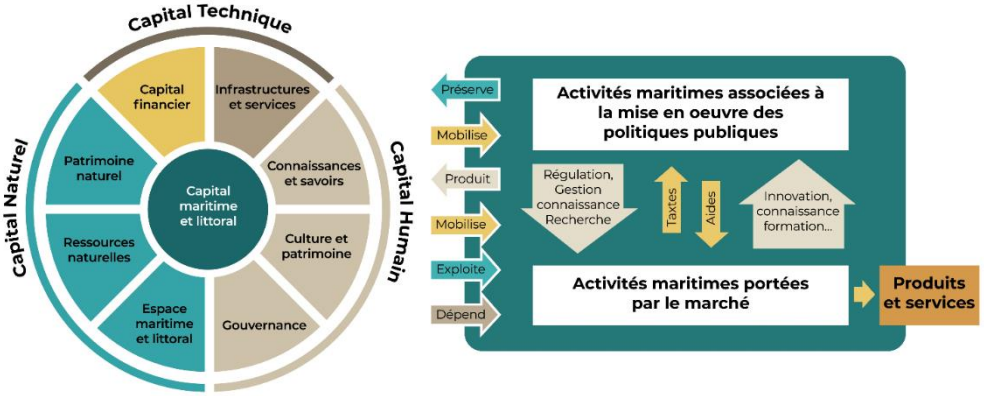
mining, are in full swing. emergence (Patil, Pawan. G., , J. Virdin, , & SM Diez, J. Roberts, 2016)

Just like protecting the coastline and improving its resilience to cope with the effects of climate change. The development of nature-based solutions in recent years on islands exposed to cyclones bears witness to this.

The articles may deal with the challenges of the blue economy for the Caribbean islands, the institutional changes required for its implementation, in particular the new modes of governance to be established in order to coordinate such a project (Hassanali, 2020). They may have a sectoral approach by focusing on this or that sector or a holistic approach by embracing both the economy and ecology. They will also be able to provide elements of foresight, particularly in the context of the implementation of national plans determined for the fight against global warming or even blue accounting (Ram, J., , D. Ramrattan, & R. Frederick , 2019). Overall, they will have to take into account the layout of the island or country. Articles may address the following topics:

- Maritime spatial planning
- Blue accounting
- Blue tourism
- Maritime transport
- Subsistence, commercial and sport fishing
- Blue governance (coordination and organization of the blue economy)
- Renewable energy at sea
- Biotechnology
- Nature-based solutions Resilience of coastal ecosystems
- Exploitation of the seabed
- Aquaculture
- Discovery of the seabed
- Other areas linked to the sea and coasts (https://journals.openedition.org/etudescaribeennes/20776, 2023)

Table n°1Presentation diagram of the components of the Blue economy



SOURCE: (SALAOUATCHI, 2018)

2. Coronavirus pandemic and the blue economy:

The spread of the coronavirus (COVID-19) outbreak is having a major impact on economies and people around the world, including those whose livelihoods depend on the oceans. Thus, fishing, which plays an essential role for food security, is threatened if it is not managed sustainably. Rising levels of fishing, by encouraging more people to take up fishing, is a dangerous precedent that has emerged in other crises and seriously threatens the sustainability of fishing and the jobs that it employs. it provides. Furthermore, the disruption of supply chains risks compromising the ability of fishermen to sell their catches and earn a living. Thanks to the activities and operations already established in this sector, the World Bank can help its client countries face this new threat and preserve good fisheries management.

Other sectors affected are ecotourism and coastal tourism, where those who rely on them face the loss of their source of livelihood or face, if still working, reduced income and increased risk for their health and safety. A prolonged shutdown of tourism will have considerable consequences for countries whose national economies are dependent on this sector. The World Bank can help support local communities through smart investments that will quickly provide livelihood support in the fishing, tourism and ecotourism sectors. It is well placed to support small businesses, which would ease economic pressures from the loss of jobs in the formal sector and quickly include vulnerable categories and women in economic activity. The livelihood and

food security of coastal populations, particularly in small island developing States, are heavily dependent on marine resources.

The participation of these communities in the conservation, restoration and sustainable management of natural habitats can generate much-needed income in the short term, while strengthening the socio-economic resilience of countries working to revitalize their coastal economies. The coronavirus pandemic is also leading to difficult short-term choices between health and the environment, leading to overuse of single-use plastics and increased production of medical waste, which risks ending up in the oceans. The World Bank Group is uniquely positioned to combat this problem and will continue to do so.

It funds solid waste management, recycling, clean production and policy reforms in favor of carbon pricing and green growth. It also supports countries transitioning to a circular economy such as Bangladesh, Morocco, Pakistan and the Lao People's Democratic Republic. In capacity-poor environments, where waste treatment systems are saturated or failing, the sea or rivers serve as dumping grounds for medical waste. This situation is extremely dangerous for humans and marine life. The World Bank will scale up its support for medical waste management activities as part of emergency projects related to the COVID-19 pandemic. The World Bank Environment team strengthens and improves medical waste management and provides equipment and capacity to healthcare providers (using occupational health and safety guidelines). (https://www.banquemondiale.org/fr/topic/oceans-fisheries-and-coastal-economies, 2023)

3. Challenges and Opportunities of the Blue Economy

3.1Challenges:

Climate vulnerability, maritime insecurity and inequalities in access to common resources are among the most sensitive challenges likely to hinder the realization of the benefits arising from the blue economy. They can exacerbate conflicts and deepen poverty. Criminal activities such as IUU fishing, piracy and armed violence at sea, smuggling and human trafficking, and environmental damage pose an acute threat to the sustainable use of blue economy resources. , and they have negative repercussions on the security, social development and economic growth of the African continent. An additional difficulty is added when, as is the case for example with smuggling,

the activity intersects networks and groups including socially and economically marginalized communities.
Weak budgetary structures and legislative loopholes generate dirty money that finances the continuation of criminal activities, reducing the flow of potential benefits from the country where they are carried out. These activities also contribute to destroying the social and cultural fabric of the affected countries and populations. Terrorism is increasingly at the heart of both regional and international concerns. It poses a security challenge that can only be effectively met by strengthening cooperation and collaboration at all levels. The development of secure areas, where social protection is ensured, is a prerequisite for achieving the expected benefits of the blue economy. Disputes concerning the drawing of borders or fueled by rivalries over access to natural resources are another major concern in the African context. Concerning conflicts between countries bordering seas or lakes, there is a blatant lack of resources, due to ignorance of the applicable legal frameworks and mechanisms for resolving conflicts.

3.2Opportunities:

The blue economy offers an opportunity to strengthen partnerships building on existing cooperation mechanisms in the maritime, lake and river domains, including coasts and shores. When they are fully operational, these partnerships could trigger a qualitative leap in the economic development of the countries involved, and spread additional progress, peace and prosperity across the continent. They can also enable economies of scale to help countries fill financial and technical gaps or insufficient infrastructure that prevent them from fully exploiting the potential of their aquatic or marine resources. The delimitation of maritime borders is an important factor in reaping all the benefits of the blue economy. States must be encouraged to resolve their disputes using existing instruments, including third-party settlement procedures such as international courts and tribunals. (Economic Commission for, 2016)

4. Challenges and solutions for the implementation of the blue economy in africa

-Take into account the pressures exerted on the coastline
-Give a primary place to the governance of public policies and PEM

-Take into account the guidelines for the establishment of a national maritime strategy guaranteeing a transition to a blue economy
-Seize the opportunities offered for regional and international cooperation (BOURHIM, 2023)

Over the next 50 years, Africa will need to increase its food production amid chronic water shortages and rising costs of living. Its youth population is expected to reach 830 million by 2050, and more than 300 million of them will join the workforce by 2035. Consumer spending is expected to reach US$1.4 trillion by 2025 and the value of agriculture and agri-food 1 billion US dollars by 2030.

If the continent's current trend of non-ecological use of marine resources is not curbed, the potential of ocean resources will be seriously compromised. Sustainable and equitable solutions are needed to address the interrelated challenges of protecting the health of the natural environment and the health of human populations. When it comes to Africa's oceans, there is much hope, as some ocean and aquatic resources are potentially renewable if the right mechanisms allow, and a country can achieve economic growth without depleting resources or making its communities vulnerable. Making a community resilient means giving its members the means to generate wealth using locally available resources, which Africa still has in abundance, without exposing themselves to the dangers resulting from their activities.

African countries are blessed with extensive coastlines and abundant fisheries resources from oceans, seas, lakes, rivers, floodplains and fish farms, which provide a number of benefits, including food security and nutrition, livelihoods, export and biodiversity. With the abundance of business opportunities arising from marine and coastal resources, young people are required to be able to identify where to actually look for said opportunities. Small-scale projects will form a pillar of coastal communities, securing food and income, and providing important ecological and biodiversity-related components offering opportunities for individual or collective engagement.

Africa's strength lies in its youth; the continent has the largest number of young people of any continent, currently estimated at 200 million, and young people will influence the continent's economic renewal in the coming years. When harnessed positively, this combination can create wealth opportunities for African youth in the rich and consolidated global market. The majority of the African population is poor and is therefore the most affected by environmental degradation and the least able to bounce back. The

degradation of ocean and aquatic resources has significant consequences on human well-being and health, with the resulting environmental risks accounting for approximately 28% of the morbidity rate in Africa.

Africa underutilizes, or even wastes, its blue or ocean economy potential. This is a state of affairs that must be corrected. The blue or ocean economy, as described in the African Union's Agenda 2063, "will contribute enormously to the transformation and growth of the continent." According to a 2014 study by the Food and Agriculture Organization of the United Nations, the total gross value added of the fisheries and aquaculture sector in Africa was estimated at USD 24 billion, or 1.26 % of the combined gross domestic product of the total gross value added of the fisheries and aquaculture sector in Africa was estimated at USD 24 billion, or 1.26% of the combined gross domestic product of all African countries.

Seafood continues to be a major economic product of the living sea and the study found that the seafood sector employed around 12.3 million people but remained largely underexploited. There is a clear need to professionalize the aquaculture and fisheries sector in order to realize its job creation potential. 17. The tonnage of African ports is expected to increase from 265 million tonnes in 2009 to 2 billion tonnes in 2040. The value of the African maritime sector is currently estimated at around US$1 trillion per year. With the implementation of adequate economic policies, it is estimated that the sector could triple in just two years. In 2018, the total annual economic value of maritime-related activities in Africa was US$1.5 trillion and is expected to reach US$3.5 trillion in 2020.

Ninety percent of the continent's imports and exports move by sea, and Africa's growth potential depends largely on ocean-land connections, which still lag behind those of other regions. A common characteristic of African countries is the generally poor coverage and inconsistent availability of electricity; different countries rely on oil-fired power plants to produce electricity. Furthermore, electricity demand in Africa is forecast to increase from 125 gigawatts in 2010 to 700 gigawatts by 2040. An increase in energy supply is needed to power blue or ocean economy industries, which in turn will constitute a driving force for other sources of energy such as tidal energy, sea currents and waves.

Across Africa, significant fish stocks have declined, with 70% of species at or beyond the sustainability limit. Most large fish and invertebrates have been overexploited to provide a population that doubles every 10 to 15 years. In

2014, the United Nations Environment Program (UNEP) estimated that global deforestation of mangroves was causing economic losses valued at USD 42 billion per year. In the Western Indian Ocean region, coral cover, which is a major tourist attraction in countries in the region, had fallen to 30% in 2017. Waste from land-based sources reaching the ocean represents a major problem for the natural beauty of beaches and marine life. It is estimated that by 2050 there may be more plastics, by weight, than fish in the ocean.

The visibility of plastics and the time it takes for them to degrade means they remain painful for decades, with a visible and extremely damaging impact on the environment. Additionally, sea creatures die after ingesting plastic waste, with their stomachs filled with small, undegraded plastic debris.

Other challenges for a blue or ocean economy are invasive species and ocean acidification, which leads to biodiversity loss and compromises human health and food security. Furthermore, the weak legal, policy, regulatory and institutional framework, coupled with poorly planned and unregulated coastal development, exacerbates existing problems. One of the key solutions to the problems facing a blue or ocean economy is how resources are managed. (ACFM, 2019)

5. Sustainable blue economy

"A sustainable ocean economy emerges when economic activity is in balance with the long-term capacity of ocean ecosystems to support that activity and maintain their resilience and good health. The concept of the blue economy is the prism through which we can understand and develop strategic programs that improve both the health of the ocean and economic growth, in accordance with the principles of social equity and inclusion. . »

In order to promote the blue economy, that is, the sustainable development of maritime activities, it is necessary to adopt ecosystem management strategies such as marine spatial planning (MSP). The PEM supports the implementation, monitoring and evaluation of management processes through the development of indicators linked to ecological, economic and social objectives.

Sustainable blue economy: challenges and opportunities

Challenges

• Halt current economic trends that are rapidly degrading ocean resources.

• Address inadequate valuation of natural capital.

• Go beyond non-integrated sectoral management approaches.
• Address capacity limitations (human capital).
Possibilities
• Support economic development through a healthy and resilient ocean, • Strengthen science, technology, innovation and multidisciplinary research, • Move towards a holistic, cross-sectoral and long-term management approach, • Develop human capacities and promote sustainable and quality employment.

The Nairobi Declaration for a Sustainable Blue Economy

- Smart maritime shipping, ports, transportation and global connectivity
- Employment, job creation and eradication of poverty
- Cities, tourism, resilient coasts and infrastructure
- Sustainable energy, mining resources and innovative industries
- Management and sustainability of marine life, conservation and sustainable economic activities
- End hunger, secure food supplies and promote good health and sustainable fisheries
- Action in favor of climate, management of waste from agriculture and fishing as well as an unpolluted ocean
- Maritime safety, security and regulatory enforcement
- People, culture, communities and societies – the inclusive blue economy for all

(http://www.mspglobal2030.org/fr/, 2023)

6.Conclusion:

At the heart of the new blue economy concept is the decoupling of socio-economic development from environmental degradation… a subset of the entire ocean economy that has regenerative and restorative activities that lead to the improving human health and well-being, including food security and creating sustainable livelihoods. The blue economy refers to economic activities that are both ocean-based and actively good for the ocean, although definitions vary. As the concept of the blue economy continues to evolve and adapt, economic development in ocean and coastal communities can be designed to serve as a foundation for sustainable development worldwide.

6.1.Recommendations for the transition towards a blue economy in Algeria:

The blue economy strategy which covers the sea and the coast sets four major long-term objectives which are complementary and inseparable, namely:

1. Strengthen sustainable, coherent and inclusive socio-economic development:
• Develop the full potential of existing sectors.
• Encourage emerging sectors.
• Invest in the sectors of the future (biotechnologies and genetic resources).
2. Accelerate the ecological transition for the sea and the coast, in accordance with the concept of sustainability and to face climate change
3. Ensure the water-energy nexus.
4. Consolidate Algeria's position by strengthening its geostrategic positioning on the African, European and international dimensions.

7.Bibliography:

- (2023, 12-21). Retrieved from https://www.centraliens-lyon.net/technica/article/les-entreprises-d-une-economie-bleue-durable/306.
- (2023, 12-22). Retrieved from https://journals.openedition.org/etudescaribeennes/20776.
- (2023, 12 20). Retrieved from https://www.banquemondiale.org/fr/topic/oceans-fisheries-and-coastal-economies.
- (2023, 12-22). Retrieved from http://www.mspglobal2030.org/fr/.
- BOURHIM, A. (2023). INTRODUCTION TO THE BLUE ECONOMY. Tangier: INITIATIVE WESTMED/BE, UfM.
- CMAE. (2019). Promoting the blue/ocean economy in Africa. Durban in South Africa.
- Economic Commission for, l. (2016). The blue economy in Africa: Practical guide. Addis Ababa: ECA Publication and Printing Unit.

- Failler, P., & S. Phang. (2020). Review of Blue Economy of Bahamas, Barbados, Belize, Guyana, Jamaica, Trinidad and Tobago, and Suriname, Coordination Support for UnleashingNew Avenues for Growth by tackling opportunities in the Blue Economy: Series on Blue Economy, Technological Trends an. Inter-American Development bank.
- Hassanali, K. (2020). CARICOM and the blue economy – Multiple understandings and their implications for global engagement. Marine Policy.
- Patil, Pawan. G., J. Virdin, , & SM Diez, J. Roberts. (2016). Toward a Blue Economy: A Promise for Sustainable Growth in the Caribbean". Washington DC.: World Bank.
- Ram, J., D. Ramrattan, & R. Frederick. (2019). Measuring the Blue Economy: The System of National Accounts and Use of Blue Economy Satellite Accounts. CBD Working Paper.
- SALAOUATCHI, HS (2018). National Strategy for the Blue Economy - Algeria. ALGER.