



The Nigeria Blue Economy: Prospects for Economic Growth and Challenges

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Abstract

The agricultural sector of the Nigerian economy played a fundamental role in the economic growth of Nigeria before the oil boom of the 1970s. The volatile nature of the global oil market in which the Nigerian economy depends upon has recently been questioned repeatedly, with a call to diversifying to other sectors of the economy. Blue economy is one of such sectors with the potential to drive the economy which has also been a subject of much debate in the developed and less developed countries. Conversely, this study, therefore, focused on the blue economy and economic growth of the Niger Delta region and the Nigeria state. Findings from the study show, Employment, Job Creation and Poverty Eradication, Ending Hunger, Securing Food provides, Promoting Physiological condition and Sustainable Fisheries, Sustainable Energy and Natural Resources and Innovative Industries, People, Culture and Communities and Societies by the blue economy. It also reveals sea Piracy, Illegal, arms trafficking, terrorism, the destruction of maritime ecosystems, pollution or global climate change, over smitten by oil and gas among the Niger Delta states for her survival as some challenges facing the blue economy. The study recommended improving model policy reform situations for a blue economy. Furthermore, it suggested employing youths as coast guards along the waterways and deep sea to reduce the problem of sea piracy and others, developing and rolling out maritime education and skills coaching Centers/schools and policies, government of each Niger Delta state and the Nigeria nation ought to look on the far side oil and build focus to the blue economy.

Keywords: Blue Economy, GDP, Economic Growth, Agriculture, Niger Delta.

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INTRODUCTION

The Nigeria economy until the late 1960s relied on agricultural products for its foreign exchange alongside a few solid minerals. However, with the discovery of oil in abundance and following the boom in the oil industry in the 1970s, the other sectors that were predominant in economy notably; agriculture (blue economy) was abandoned (Adeyemi & Abiodun, 2013). Blue economy (ocean) activities are globally acknowledged to play a key role in the alleviation of extreme poverty and hunger through employment and other economic opportunities. This includes the supply of seagoing personnel and ship recycling, ship owning and operating, shipbuilding and repair and port services, among others. Nigeria is blessed with a coastline of about 870km and about 3,000 kilometers of inland waterways with varieties of natural resources including petroleum, natural gas, tin, columbite, iron ore, coal, zinc, limestone, lead, and other minerals. The unpredictable and harsh implications of over-dependence on oil heightened the need and call to diversify the Nigerian economy from oil towards the direction of the blue economy. Proponents of an increase in the number of agricultural outputs think that the blue economy outputs have great capacities to stimulate the Niger Delta region and the Nigerian economy to the preferred growth and development. The blue economy is essential, not only to a wide array of biodiversity and ecosystems but also to the food chains, livelihoods and climate regulation for a human population heading towards nine billion individuals (Abdullahel, 2017).

The ocean (Blue economy) occupies about 75% of the Earth's surfaces and is home to more than half of all living things, which regularly makes a false impression that they are boundless resources. This prompts monstrous overexploitation and degradation, with an effect that comes to a long way past their shorelines. Ocean related issues are fundamental to a large portion of the Economic Development Goals and to the change towards the comprehensive green economy on which their sustainability depends. The complimentary "blue" component of that change known as the blue economy offers an inventive way to deal with monitoring the seas while receiving their rewards more impartially and sustainably.

Hoegh-Guldberg (2015) explained that it is increasingly obvious that without more sustainable management of the oceans, they, in turn, will be unable to sustain the population that depends on them. This is particularly true for the small island nations that are such a key part of the blue economy which the Niger Delta region of Nigeria is one. The potential linkage between the blue economy, sustainable development, and economic growth is recognized within the 2030 Agenda for property Development. SDG target14.7 focuses on enhancing the economic edges to Small Island Developing States (SIDS), water enclosed areas and Less Developed Countries (LDCs) just like the Niger Delta from the property use of marine resources, as well as through the sustainable management of fisheries, cultivation, tourism and business enterprise (UNCTAD, 2014). Niger Delta is at the forefront of the blue economy development, recognizing that oceans have a key role to play in humanity's future which the blue economy offers an approach to sustainable development higher suited to their circumstances, constraints, and challenges.

The blue economy integrates an innovative approach to the economic exploitation of the resources of oceans, lakes, rivers and different bodies of water. The idea seeks to market economic growth, social inclusion, and preservation or improvement of livelihoods whereas at identical time guaranteeing environmental sustainability. At its core, it refers to the decoupling of socioeconomic development through ocean-related sectors and activities from environmental and ecosystem degradation. It was on this backdrop that this study intends to explore the blue economy and the national economy since it presents the idea of the blue economy and

investigates how nations like Nigeria and the Niger Delta region can benefit through it, in this manner the occupations and development of individuals living on waterfront territories and islands.

CONCEPTUAL CLARIFICATION

The Origin and Conceptualization of the Blue Economy

The emergence and the recent evolution of the concept of the blue economy in several fora bear testimony to its importance as an alternative economic model for sustainable development that acknowledges nations' dependency on the oceans (UNECA, 2016). It also reflects a modern view that further development can also be feasible while maintaining sustainability and social justice, including intergenerational equity as the main guiding principles.

The concept Blue Economy as an economic philosophy was first introduced by Professor Gunter Pauli in 1994 when asked by the United Nations to reflect on the business models of the future in preparation for COP3 in Japan where the Kyoto Protocol was decided (Pauli, 2010). The idea 'blue economy' was propounded within the urban center Summit of 2012 that is additionally acquainted as 'Rio+20', by the world organization setting Program. Practically, the planned idea is an application of each 'green economy' in cycle with inexperienced growth and ideas to the ocean realm, up human eudemonia and social equity in parallel with less environmental hurt and economical resource utilization were the very important causes behind underpinning the blue economy idea within the Rio+20 summit (UNEP, 2013). Blue economy acknowledges the ocean realm because of the new inducted platform of ocean development still as ocean governance. The idea mirrors the dragging line between socioeconomic development and reckless environmental degradation. The term blue economy has been utilized in various ways. However, it's understood to comprise of a variety of economic sectors and connected policies that along confirm whether or not the utilization of oceanic resources is property. The blue economy idea seeks to market economic process, social inclusion, and therefore the preservation or improvement of livelihoods whereas at identical time guaranteeing the environmental property of the oceans and coastal areas. It's considered the decoupling of socio-economic activities and development from environmental degradation and optimizing the advantages which can be derived from marine resources (Wairimu & Khainga, 2017).

According to the World Bank (2016), the blue economy is the sustainable use of ocean resources for economic growth, improved livelihoods, and jobs whereas protecting the health of ocean scheme. European Commission defines the blue economy as all economic activities associated with oceans, seas, and coasts. It covers a large vary of interlinked established and rising sectors. The Commonwealth of Nations considers it, as an arising idea that inspires a higher situation of our ocean or 'blue' resources. Conservation International in Bertazzo (2008) added that the blue economy additionally includes economic edges that will not be marketed, like carbon storage, coastal protection, cultural values, and diversity. The Center for the Blue Economy says, the concept is currently a widely used term around the world with 3 connected however distinct meanings the general contribution of the oceans to economies, the necessity to deal with the environmental and ecological property of the oceans, and therefore the ocean economy as a growth chance for each developed and developing countries.

According to OECD (2012) projections, by 2030, the Blue Economy will stand out as an economic sectors that have an on the spot or indirect link to the ocean that would outmatch the

expansion of the global economy entirely, in terms of its usefulness and employment within the coming decade. The marine energy, marine biotechnology, coastal business enterprise, transport, and food production sectors might provide unexampled development and investment opportunities. The East Asian Seas (EAS) Congress (2012, 23) outlined the blue economy as:

"a resource ocean primarily based economic model that's for the most parts mitten by coastal and marine ecosystems and resources, however one that employs environmentally sound and innovative infrastructure, technologies and practices, as well as institutional and funding arrangements, for meeting the goals of: (a) property and inclusive development; (b) protective the coasts and oceans, and reducing environmental risks and ecological scarcities; (c) addressing water, energy and food security; (d) protective the health, livelihoods and welfare of the folks within the coastal zone; and (e) fostering an ecosystem-based global climate change mitigation and adaptation measures."

At the core of the Blue (ocean), the economy idea is the de-coupling of socioeconomic development from environmental degradation. To attain this, the Blue Economy approach is supported upon the assessment and incorporation of the Billion Dollars' worth of the natural (blue) capital into all aspects of economic activity (conceptualization, planning, infrastructure development, trade, travel, natural resources exploitation, energy production/consumption). Potency and optimization of resource use square measure preponderating while respecting environmental and ecological parameters. This includes wherever sustain sourcing and usage of natural raw materials and utilizing wherever possible "blue" low energy choices to grasp efficiencies and edges as against the business as was common "brown" situation of high energy, low employment, and industrial development models (UNEP, FAO, IMO, UNDP, IUCN, GRID-Arendal, 2012).

GEOGRAPHICAL PERSPECTIVE OF THE NIGER DELTA

Generally, the Niger Delta region lies between latitude 400N and 600N of the Equator and Longitude 500E and 800E of the Greenwich meridian. Little wonder then that the region has a hot and humid Sub-equatorial climate with hot and rainy and thick vegetation mangroves and huge lush forest. It is the territory, which lies between the estuaries of the Benin River to the West and the Cross River to the East of the River Niger itself. The cartographic Niger Delta is the most inhabited delta in the world. It is Africa's largest and the world's second-largest (Afolabi, 1998; Nyananyo, 1999; Anderson & Peek, 2002). It covers some 7,000 square kilometers, about one-third of which is made up of water containing the largest mangrove in the world, 5,400 – 6,000 km² (Afolabi, 1998, & Nyananyo, 1999).

Amaechi (2018) highlighted steps taken by the Federal Government to mainstream the blue economy concept into its Economic Recovery and Growth Plan to include the formulation of a draft National Transport Policy, which is awaiting approval of the Federal Executive Council. The policy will provide a platform for the protection and sustainable exploitation of Africa's maritime domain.

Economic Growth

Economic growth is the increase in the goods and services produced by an economy, typically a nation, over a long period. It is measured as the percentage increase in the real gross domestic product (RGDP) which is a gross domestic product (GDP) adjusted for inflation. GDP is the market value of all final goods and services produced in an economy or nation. The term economic growth is also described as the positive and sustained increase in aggregate goods and services produced in an economy within a given period. When measured with the population of a given country, then economic growth can be stated in terms of per capita income according to which the aggregate production of goods and services in a given year is divided by the population of the country in the given period. Economic growth can also be stated in nominal or in real terms. Hence, when the increase in the aggregate level of goods and services is deflated by the rate of inflation, we have the real economic growth, otherwise when measured without deflating; it is called nominal economic growth (Economist Intelligence Unit, 2015).

Notwithstanding, the consensus appears to be that the term economic growth refers to a positive increase in the aggregate level of output within a given time period in a country while economic development is seen as sustainable increase in the aggregate level of output and incomes, with due consideration given to the quality of life which hopefully takes account of such issues as equal distribution of income, healthcare, education, environmental degradation, reduction in global pollution, freedom, and justice, etc.

Principles for a Sustainable Blue Economy

The world's oceans, seas, and coastal square measure are the most important ecosystems in the world and a precious part of our natural heritage. They are additionally very important to the livelihoods and food security of billions of individuals around the world, and to the economic development of most countries (DESA, 2017).

- The ability of those marine environments to produce jobs and nutrition over the long run is, however, already fraught from human economic activities; and it is being more vulnerable by development approaches that square measure fragmented, uncoordinated, and infrequently in conflict with what science tells us is physically potential or ecologically sound.
- Fortunately, several governments, organizations, and communities in each developed and developing countries have become attentive to the necessity for a lot of coherent, integrated, fair, and science-primarily based approach to managing the economic development of the oceans.
- Humanity increasingly understands that we tend to square measure an integral part of the marine sector, which we tend to, should set up and implement our economic activities with care, equalization the will to enhance human living standards and eudemonia with the imperative to sustain scheme health.
- Visionary leadership is required, within the general public and private sectors, to steer the blue economy in an exceedingly sustain direction. This includes delivering on commitments already created—globally, regionally, nationwide and locally.

To ensure that the economic development of the ocean contributes to true sustainable and flexibility, these days and long into the future, with special recognition of the desires of developing countries, WWF is proposing the subsequent Principles for a sustainable Blue

Economy (WWF Baltic Ecoregion Programme, 2015). These Principles offer a definition of a sustainable Blue Economy and a roadmap to assist us to get there. They're universal and may be applied to any part of the oceans, seas or coasts, still as utilized by any actor concerned within the economic development of the ocean, as well as governments, non-public and financial sector actors, international agencies, and civil society teams. WWF requests all Blue Economy actors to use these Principles for a sustainable Blue Economy and to embed these definitions, descriptions, and actions into marine policy and activities, all round the world. For clear, measurable, and internally consistent goals and targets for a sustainable Blue Economy, governments, economic sectors, individual businesses, and different actors should gear up relevant and measurable goals and targets for a sustainable blue economy to produce their designing, management, and activities with a transparent direction.

Goals and targets for various economic, social and ecological areas still as connected policies and activities should be created as integrated and coherent as potential, to avoid conflicts and contradictions.

However, the following were considered (WWF Baltic Ecoregion Programme, 2015).

Access and communicate their performance on these goals and targets

The goals and targets for a sustainable blue economy should be frequently monitored and progress communicated to all or any stakeholders, as well as the overall public, in a remarkably clear and accessible method.

Produce status economic and legislative enjoying field that has the Blue Economy with adequate incentives and rules

Economic instruments like taxes, subsidies, and charges sought to be geared toward internalizing environmental and social edges, prices and risks to society. International and national laws as well as non-public agreements ought to be framed, enforced, and continuously improved in conduct in which support a sustainable blue economy.

Plan, manage and effectively govern the utilization of marine area and resources, applying inclusive strategies and therefore the scheme approach

All relevant uses of marine area and resources should be accounted, planned, managed and ruled through progressive, preventative, reconciling and integrated processes that make sure the long-run health and sustainable use of the ocean, whereas additionally taking under consideration human activities onto land. Such processes should be self-governing, responsible, transparent, even-handed and inclusive, to be alert to gift and future human uses and wishes, as well as the desires of minorities and therefore the most vulnerable teams in society. To make educated trade-offs, such processes ought to additionally use applicable tools and strategies to capture the variety of advantages that scheme merchandise and services will rouse different stakeholders.

Develop and apply standards, tips and best practices that support a sustainable blue economy

All actors, as well as governments, businesses, non-profit enterprises, investors and customers, should develop or apply the global sustainability standards, guidelines, best practices, or different behaviors that square measure relevant to them. For organizations, application of such standards shouldn't solely make sure that their activities square measure conducted in a remarkably accountable method, however additionally improve their performance and fight, these days and within the future.

Acknowledge that the maritime and land-based economies square measure interlinked which several are threats facing marine environments originate onto land

To attain a sustainable blue economy within the seas and coastal regions, land-based impacts to marine ecosystems should be addressed and actors should additionally work to market the event of a sustainable inexperienced economy onto land.

Actively join forces, sharing info, knowledge, best practices, lessons learned, views, and ideas, to comprehend a sustainable and prosperous future for all

All actors in an exceedingly sustainable blue economy have a responsibility to participate within the method of implementation, and to succeed in out across national, regional, sectorial, structure, and different borders, to confirm the collective situation of our common marine heritage.

Elements of Principles to Building a Sustainable Blue Economy

Promote economic activities per conservation and long run capability of the ocean, seas, lakes, and rivers to stay healthy and resilient.

- Apply relevant information and science to tell policy and decision-making
- Interact relevant stakeholders within the development and conservation of blue economy resources.
- Strengthen social and environmental company responsibility
- Develop information and understanding of the worth of the market and non-market merchandise and services of the blue economy
- Alien funding to support inclusive economic activities that enhance the health of blue economy resources.
- Support growth of little and medium enterprises within the blue economy.
- Produce markets for rising and innovative blue economy connected industries.

Key parts of a Blue Economy Policy Direction: D.I.R.E.C.T. + MAX

Develop and/or strengthen national policies to higher integrate blue economy issues into national and sub-national policy and governance frameworks. These policies ought to be told by the measures steered, with clear targets set for the blue economy.

Implement policies for healthy, flexible, and productive ocean areas as a result of while not it, citizens, and significantly the poor can feel the pinch. This study has emphasized the importance of factorization within the role of natural capital surrounded by the blue economy, and active measures and management of those capital stocks to confirm the 3 dimensions of sustainable development: Social, Environmental, and Economic.

Raise Awareness (including building a typical virtual education platform) to higher education stakeholders on what the blue economy is and why it matters. This includes attention on removing informational barriers that genuinely typically created a minimum of part by a plane figure focus, through educating public, private, and civil society, and youth in sectors that forecasts recommendation can offer successive generation of recent jobs (i.e. blue economy). As a result of a number of these, growing sectors could need skills and training that haven't antecedently been in demand, academic and training systems can get to respond.

Ensure ocean wealth is unbroken nationally and locally. Promote effective observation, control and police investigation victimization enabling technology because it becomes offered.

Construct infrastructure (soft/hard, blue/green) to support a transition to a blue economy. Vulnerability to coastal flooding poses grave risks to the financial system and positively the blue economy, and can need combinations of 3 adaptation strategies: building barriers against the water, ever-changing structures to cut back damages, and relocating structures to areas with lower flood risks. Marine and coastal construction would possibly amend from having a subsidiary role within the blue economy to seizing far a lot of central role within the blue economy.

Transform R&D and national or regional knowledge/know-how centers via institutional links with rising international expertise and platforms. As different countries genuinely embarking on similar processes, there could also be opportunities for exchange and collaboration that would build skills and enhance the analysis and development of blue economy industries.

Maximize Finance for Development to unlock non-public capital. Deploy scarce public funds to cut back impediments for personal sector investment and secure innovative and sustainable finance for blue clusters. Blue economy principles square measure being developed that would facilitate support flow of personal capital to investments that square measure per the broad objectives. Such principles might be applied across totally different public agencies to guide comes and inform developers.

The Cabotage Act of Nigeria

In pursuance of the success of Nigeria on maritime reforms (Blue economy), Nigeria made a bold attempt to change the face of maritime business within its coasts when it enacted the Coastal and Inland Shipping (Cabotage) Act 2003, though designed to restrict foreign participation in Nigeria's domestic coastal trade, nevertheless a lot of opportunities exist for foreign involvement.

Cabotage has been defined as follows:

The carrying out of trade along a country's coast; the transport of goods or passengers from one port or place to another in the same country. The privilege to carry on this trade is usually limited to vessels flying the flag of that country, **Black's Law Dictionary (8th Ed.)**. The navigation and movement of ships in coastal waters; restriction of the use of coastal waters and airspace by a country to its domestic traffic, The Webster Dictionary.

Section 2 of Coastal and Inland Shipping (Cabotage) Act 2003 incorporates the above definitions and also defines cabotage as:

- the carriage of goods and passengers by vessel from any place above or under Nigerian waters to any place above or under Nigerian waters about the exploration, exploitation or transportation of mineral or non-living natural resources;
- engaging, by vessel, in any other marine transportation activity of a commercial nature in Nigerian waters;
- carriage of any goods or substances whether or not of commercial value within Nigerian waters.

A "place above Nigerian waters" as used in the definition above means –

- "any vessel, offshore drilling unit, production platform, an artificial island, sub-sea installation, living accommodation, storage structure, loading or landing platform, dredge, floating crane, pipe laying, barge, pipeline, and an anchor cable or rig pad used in connection therewith."

Aims: Nigerian Cabotage Regime aims to:

- Restrict the use of foreign vessels in domestic coastal trade;
- Promote the development of Indigenous tonnage;
- Establish a cabotage vessel financing fund;
- Reserve the bulk of coastal trade for vessels built, owned, registered in Nigeria and manned by qualified Nigerian seafarers.
- Stimulate and expose Nigeria's indigenous shipping firms to shipping business in the coasts as a stepping stone to the deep sea/international shipping;
- Encourage acquisition of shipping technology by creating and diversifying employment opportunities in the industry;
- Improve environmental safety;
- Protect the nation's security interests;
- Enhancing domestic waterborne transportation;
- Increase national fleet/tonnage;
- Develop shipbuilding and repair capability;
- Create opportunities for employment;
- Conserve foreign exchange;
- Protect the national economy and security, etc.

The objective of the Cabotage Act is primarily to reserve the commercial transportation of goods and services within Nigerian coastal and inland waters to vessels flying the Nigerian flag and owned by persons of Nigerian citizenship. When the Coastal and Inland Shipping, otherwise known as Cabotage Act was conceptualized in 2003, stakeholders in the maritime industry were agog that the regulation would herald a new dawn in the domestic shipping business and particularly empower indigenous operators to own ships and operate without intimidation from their foreign counterpart, but 16 years after, the implementation has become a herculean task for the regulator. Most enlightenment, orientation, persuasion, and threats appear to have fallen off the ears of the violators of the act, while the domestic shipping operators continued to groan under an unpalatable operating environment dominated by foreign shipping firms.

Chagrined by the number of irregularities in the sector, the Nigerian Maritime Administration and Safety Agency (NIMASA), recently declared its intention to move against violators of the Cabotage Act 2003.

Potential and the Natural Resources of the Blue Economy

The development of the blue economy is not solely the development of ocean economy. However, property development of the marine economy is also included in the development considerations. The blue economy has various elements, as well as established ancient ocean industries like fisheries, tourism, and maritime transport, however additionally new and rising activities, like offshore renewable energy, cultivation, ocean bottom extractive activities, and marine biotechnology and bio-prospecting. variety of services provided by ocean ecosystems, and that markets don't exist, additionally contribute considerably to economic and different activities like carbon sequestration, coastal protection, waste disposal and therefore the existence of diversity. The combo of oceanic activities varies in every country, betting on their distinctive national circumstances and therefore the national vision adopted to mirror its conception of a blue economy.

The World Bank (2017) highlights that to qualify as elements of the blue economy activities got to (as illustrated by Table 1.1):

- Offer social and economic edges for current and future generations.
- Restore, protect, and maintain the variety, productivity, flexibility, core functions, and intrinsic worth of marine ecosystems. Be supporting clean technologies, renewable energy, and circular material flows which will cut back waste and promote employment of materials

Table 1: The elements of the Blue Economy

Type of Activity	Ocean Service	Industry	Drivers of Growth
Harvesting of living resources	Sea food	Fisheries	Food security
Aquaculture		Demand for protein	
Marine biotechnology	Pharmaceuticals, chemicals		Research and Development for healthcare and industry

Extraction of non-living resources, generation of new resources	Minerals	Seabed mining	Demand for minerals
Energy	Oil and gas		Demand for alternative energy sources
Renewable			
Fresh water	Desalination		Demand for fresh water
Commerce and trade in and around the oceans	Transport and trade	Shipping	Growth in seaborne trade; International regulations
Port infrastructure and services			
Tourism and recreation	Tourism		Growth of global tourism
Coastal Development		Coastal urbanization	
Domestic regulations			
Response to ocean health challenges	Ocean monitoring and surveillance	Technology and R&D	R&D in ocean technologies
Carbon Sequestration	Blue Carbon		Growth in coastal and ocean protection and conservation activities
Coastal Protection		Habitat protection and restoration	
Waste Disposal		Assimilation of nutrients and wastes	

Source: International Bank for Reconstruction and Development, April 2016

As shown by Table 1, the contribution of marine and fresh ecosystems includes:

- **Food Security, Nutrition and Health:** Fish contributes over 60% of the animal macromolecule consumed by the world's population and 6.5 % of all macromolecule consumed, with one billion persons counting on this supply of macromolecule. Fish is additionally a very crucial supply of nutrition. Even in little quantities, the provision of fish is effective in addressing food and organic process security among the poor and vulnerable populations around the world.
- **Livelihoods:** The Food and Agriculture Organization (FAO) estimates that fishers, fish farmers and those activity services and merchandise to connected industries assure the livelihoods of as many as 660–820 million people worldwide. Oceans and coasts also form the foundation for extensive employment in tourism, one of the top five industries in most small island states.
- **Mitigation of Climate Change:** Oceans represent a serious sink for phylogeny emissions, fascinating 25% of the additional carbonic acid gas additional to Earth's atmosphere by burning fossil fuels. 'Blue carbon' sinks.

Potentials and Opportunities of the Blue Economy to Economic Growth in Niger Delta and Nigeria

Smart Shipping, Ports, Transportation and International Sustainable: In recognition of the immense contribution from maritime transport within the international economy, the sustainable development places the role of mobile trade as a catalyst for sustainable and inclusive development. Economies have invested heavily in infrastructural development, operations, and capability development.

Opportunities:

- Maritime Autonomous Surface Ships (MASS) developments and implementation gift an excellent chance to alter the mixing and ability of all information points, therefore totally supporting a property ocean management approach.
- Cooperation and communication between shipping, ports and supplying to facilitate trade and foster economic growth and development.
- Development of energy economical technologies, adoption of renewable sources of energy, use of huge information and within the shipping and maritime sector.
- Development of inland waterways, as well as dredging in lakes and rivers to boost sustainable.
- Expected growth of world maritime trade volume, because of globalization.
- Improved environmental friendliness and potency of shipping.
- Adoption of blockchain technology.
- Increase volumes of cargo to draw in immense ships at our ports.
- Developing and supporting cabotage to draw in investment in the national shipping fleet.
- The partnership between the coastal and land barred countries to maximize on edges of the blue economy and improved development.
- Shut collaboration with municipalities and cities to sensitize the players to deal with the challenges of marine pollution.
- Development and growth of existing dry-docking and different maintenance facilities.

Employment, Job Creation and Poverty Eradication: The blue economy creates employment opportunities across a spread of industries, contributing over USD 1.5 trillion to the world economy, which is targeted on making sustainable, environmentally-friendly jobs within the blue economy sectors towards poverty eradication.

Opportunities

- With over 50% of Niger Delta population below 25 years, Niger Delta encompasses a goldmine of human capital that if befittingly sensitized, trained and integrated, can alter the region or country to sustainably reap the advantages of the blue economy through job and wealth creation;
- Women comprise half the world fisheries' hands. If supplied with crucial tools of the trade as well as fashionable technology, means that of communication, reasonable funding and market access the might drive a multibillion-dollar blue economy and cause poorness reduction;
- Investment in inland water resources like lakes and rivers that square measure underutilized in the least developed and developing countries;
- There's immense potential for future cooperation among the context of (Forum on China-Africa Cooperation (FOCAC) and similar frameworks in such areas as; marine resource utilization, marine piece of ground construction, ports and shipping, marine science analysis and technology, marine business enterprise, marine energy, marine setting

protection, and data sharing and services to enhance people's keep through job creation and poverty reduction;

- Fixing place a people-centered economy that prioritizes the promotion of the interests of standard staff, small-scale food producers and vulnerable communities, we've got a chance to use a blue economy to shut the difference gap.

Cities, Tourism, Resilient Coasts, and Infrastructure: As the world continues to focus in the event of the blue economy for sustainable growth, coastal and lake facing cities still attract a lot of population, business enterprise activities still as different infrastructural developments. These new investments in infrastructure and job creation are going to be required to stay up with such zoom and resource consumption.

Opportunities

- Enhancing diversification of business enterprise products as well as cruise ships and desegregation coastal business enterprise and hinterlands as the way of generating spill over into inland countries.
- Harnessing the potential of the blue economy in the creation of jobs, and in addressing food security, employment and poverty reduction.
- Development of urban and marine abstraction designing through ecosystem-based management to realize sustainable blue economy and to market sustainable cities.
- Harmonization of existing and new policies and endeavor necessary institutional reforms that will enhance sustainable businesses and promote a circular economy for healthy rivers, lakes, seas, and oceans.
- Education, capability development, training, collaboration and partnerships inclusive of all stakeholders within the implementation of the blue economy agenda.

Sustainable Energy and Natural Resources and Innovative Industries: the Blue economy is leveraged to produce reasonable, sustainable and reliable energy and meet mineral resource wants through sound into renewable energy sources still as sustainable harvest home of natural resources. This presents various opportunities for investments within the energy and minerals sector still as an institution of innovative industries.

Opportunities

- The worldwide market place for Marine Biotechnology is predicted to succeed in 5.9 Billion by 2022. This may produce extra demand for international marine biotechnology thus presenting a chance for more investments on identical.
- The Blue Economy offers immense potential for renewable energy from wind, tides, waves, biomass sources and salinity gradient, all that need technology to harness sustainably thus this offers a chance for investment in technology which will support the exploration of those sources of energy.
- The Blue Economy has the potential to act as carbon sinks, bio-prospecting, and organic compound sources, a chance which may be explored as an economic activity still as to serve to preserve marine diversity.

Management and Sustaining Marine Life, Conservation and sustainable Economic Activities:

The world's aquatic ecosystems offer a large variety of resources and services. They contribute to the livelihoods of the group and socio-economic development around the world. It gives room for analysis establishments, policy-makers, development partners, practitioners and personal sector to deal with challenges moving most utilization of aquatic ecosystems whereas safeguarding the setting.

Opportunities

- There square measure several innovative funding opportunities in support of the blue economy e.g, World's 1st sovereign Blue Bond in Seychelles. It rises funding from capital market investors for comes that support the sustainable use of blue economy resources.
- Building collaboration between policy manufacturers, researchers, communities and business to confirm policies and methods promote sustainable management and harnessing of blue economy resources;
- Marine abstraction designing to attain sustainable ecological, economic and social outcomes.

Ending Hunger, Securing Food provides, Promoting Physiological condition and Sustainable Fisheries:

The UN's Sustainable Development Goal 2 seeks sustainable solutions to ending world hunger all told its forms by 2030 and achieving food and organic process security. Sustainable fisheries, mariculture and cultivation square measure well placed to meaningfully contribute to the action of this goal.

Opportunities

- Sharing of recent concepts, technologies, and innovations and also forming partnerships to draw in investments and improve productivity in fisheries and cultivation.
- Sharing of experiences, best practices on the development of policy frameworks and implementation of ways to boost food security.
- Development and roll-out of innovative funding products for the fisheries sector.
- Lever age on research to develop proof-primarily based policies and methods for sustainably developing the fisheries sector.
- Investment in observation management and police investigation technologies to guard the marine scheme.
- Comes that promote community-based management of marine and different aquatic resources.
- Replicate best world practices for native communities' economic direction e.g. the creation of a fishing village as traveler attraction in Morocco.
- Enhance resilience against natural disasters to guard bone ecosystems.

Climate Action, Agriculture, Waste Management and Pollution-Free Oceans

Human activities contribute to global climate change and pollution of marine and different aquatic resources. This shrinks the potential of blue economy resources to contribute to the economic process and regulation of the setting.

Opportunities

- New technologies and innovations will produce new businesses and new opportunities for investment around agriculture and waste management solutions.
- Scaling from tried mechanisms for waste management.
- Substitution of unsuitable subsidies with the proper incentives that limit GHG emissions,
- Actualizing ideas like ‘circular economy.
- Partnerships and information sharing towards the restoration of degraded ecosystems.
- Collaboration with the relevant stakeholders in key deciding processes on investment within the blue economy.

Maritime Security Safety and Regulative Social Control

A safe and secure maritime domain is crucial for international ocean-borne trade, job and wealth creation still as sustainable utilization of blue economy resources. The Niger Delta states and non-state actors should figure along to secure the maritime domain.

Opportunities

- National, regional, and international mechanisms for sharing information and best practices as well as capacity building in addressing maritime threats.
- Non-public sector involvement through joint plus possession and investment in Regional Security Systems.
- Development of recent technologies in maritime area management.
- Collaboration among states to comprehend a rule primarily based on international order as well as for improved ocean governance.
- Funding maritime safety and security capabilities.

People, Culture and Communities and Societies: The inclusive Blue Economy

The skew development of the blue economy, characterized by the marginalization of ladies, youth and autochthonic communities could be a major challenge that has got to be overcome for the positive impact of the blue economy to be accomplished globally.

Opportunities

- Building synergies between ancient blue sectors (fisheries and aquaculture, tourism, energy, maritime transport) and different rising sectors (deep ocean mining, bioprospecting);

- Empowering native communities to diversify into different blue economy activities like marine instrumentality repairs and pairing, maritime services, ocean port operations, recreational yachting, inland navigation, offshore offer, and maritime works.
- Promoting interface between the blue economy and cultural heritage (archeology and anthropological) like shipwrecks, decommissioned ferries, and bridges among others.
- Mapping and protective shipwrecks have nice potential to boost business enterprises, produce jobs and generate economic benefits for local communities.

Challenge Facing the Blue Economy

Despite the advantages of victimization the aquatic resources, there square measure regulative challenges include:

- Wide selection of maritime security threats as well as Piracy, Illegal, Unregulated and Unreported (IUU) fishing, importation of individuals, arms trafficking, narcotics and different felonious merchandise, terrorism, cybercrimes, proliferation of Weapons of Mass Destruction (WMDs), threats to freedom of navigation, environmental risks, and natural disasters.
- The destruction of maritime ecosystems, pollution or global climate change, still as poorness or maritime insecurity caused by terrorist acts or piracy.
- Over smitten by oil and gas among the Niger Delta states for her survival.
- The granting of economic incentives to little fishermen to adopt property practices, or the rise in protected maritime areas, to recover the habitats and productivity of the seas.
- The slow uptake of technology in shipping and maritime transport and supplying and lack of ordinary electronic systems.
- Global climate change, marine pollution, unsustainable extraction of marine resources and destruction of coastal habitats.
- Non-inclusivity, gender difference, and unequal purchase equal work are done.
- Lack of correct education and coaching framework that promotes maritime education and skills for a sector that needs an extremely hot labor force.
- Negative effects of human activities and environmental degradation on marine ecosystems that shrink the potential of the blue economy resources.
- Inadequate capability (human skills and technology) to faucet into the energy and natural resources among the blue economy sustainably.
- Over-reliance on rain-fed agriculture resulting in unsustainable production.
- Inadequate inclusion of the Niger Delta native communities and peoples in the blue economy.
- Lack of capability among native communities to participate within the blue economy.

WAY FORWARDS TO BLUE ECONOMY

- Raise awareness to boost understanding of the Blue Economy idea still because of the relevant international rules, as well as recent UN agency tips on maritime cyber security threats and risk management.
- Introduction/establishment of coast guards among the waterways that.

- Develop an international framework and trade best practices to control and promote the adoption of blockchain technology in maritime transport.
- Developing and rolling out of maritime education and skills coaching policies supported comprehensive coaching, skills, and career gap analysis.
- Guaranteeing inclusivity in political beliefs and implementation processes of blue economy by incorporating native communities as well as autochthonic communities, girls and youth as real stakeholders.
- Pursue cooperation regionally and globally for sharing of experiences, info and best practices.
- Invest in simply accessible maritime info systems to facilitate educated and inclusive deciding.
- Implement sound urban designing as well as marine abstraction attending to conserve marine ecosystems.
- Promote business enterprise through diversification of business enterprise products.
- Produce necessary blue infrastructure, invest in relevant technologies, and strengthen funding mechanisms, build human capability and utilize talent, encourage analysis and innovation to drive sustainable energy and natural resources exploration and development of innovative industries among the blue economy.
- Empower women and youth to play the crucial role of championing the development of sustainable energy resources and mineral exploration among the blue economy as they account for about 60% of the Niger Delta and the world population at massive.
- Establish effective policy, regulative and institutional frameworks to safeguard the marine resources.
- Promote technology transfer and capability building for the little scale fisher-folks to foster their engagement in property fish production and process.
- Implement commitments created in maritime safety, security and regulative frameworks.
- Strengthen structures/frameworks for policy formulation, implementation, and analysis.

CONCLUSION

The blue economy encompasses a pleasant potential to contribute to higher and quicker gross domestic product growth in Niger Delta and Nigeria. Innovation and growth within the coastal, marine and maritime sectors might deliver food, energy, transport, among different products and services as well as laying a foundation for sustainable development and economic growth in Niger Delta and Nigeria. Diversifying the country's or region economy on the far side oil and its coastal, marine and maritime sector is crucial to achieving the Sustainable Development Goals (SDGs) and delivering good, sustainable and inclusive economic growth. This can be particularly necessary within the context of the accelerated growth that the country is experiencing with none concomitant reduction in poverty.

This policy transient aims to lift awareness of the importance of the blue economy to Niger Delta. It would by this shaping the blue economy and its elements to point out that the Niger Delta will promote the blue economy's forward and backward linkages with the oil sector of the economy. The policy transient provides reflections on the mandatory policies that ought to be enforced to promote/develop the blue economy for sustainable development and inclusive economic growth in Niger Delta and Nigeria at massive. It additionally is a building block for more development of policies to support the blue economy within the Niger Delta region.

The implication of the study

There are several social change implications from this study; effective blue economy operations would be advantageous not only to the Niger Delta region but also to the economic growth of the Nigeria state. The outcome of this study could courage the social change as leaders of the Niger Delta could change their focus on oil revenue to developing and improving the blue economy to sustain the economy of the region. This could create a better livelihood, sustainable integration, provision of employment opportunities and also improve the standard of living of the people of the region.

The findings of this study could also help the Niger Delta states and the Nigerian government in formulating policies and regulations that would enhance the potentials of the blue economy for economic growth.

Recommendations

- **Improve Measures of the Blue Economy**
"What you live is what you manage" could be an expression typically, however most likely apocryphally, attributed to management intellect. To tell a designing method and monitor progress on best development pathways, basic measures of the Blue economy square measure needed if even as a shot in time.
- **Model Policy Reform situations for a Blue Economy**
To line targets and develop public investment ways and building upon the baseline for Niger Delta's ocean economy. The best method would be to articulate a variety of policy situations for the development of this section of the economic system. Varied situations might be analyzed, taking into consideration what's renowned concerning the external drivers. The output from modeling these situations would be estimates of the prices and edges to Niger Delta of various development pathways for the ocean economy, from that to line-specific targets and establish public investment ways.
- The government needs to pay more attention to the Nigerian Institute for Oceanography & Marine Research as well as reopening of all seaports in Niger Delta.

Suggestions

- Employing youths as coast guards along with the waterways and deep sea to reduce the problem of sea piracy and others.
- Developing and rolling out of maritime education and skills coaching Centers/schools and policies supported comprehensive coaching, skills, and career.
- Upgrading and certification of the Sea Side College at Isaka in Rivers state to continue its aim of coaching persons on maritime skills.
- The government of each Niger Delta state and the Nigeria nation ought to look on the far side oil and build focus on the blue economy.
- Revamp the Niger Delta states Golf Club still as different clubs among the Niger Delta region.
- There's got to invest in varied marine comes like cultivation worth chains; protection of corals.

- Youths ought to be inspired in collaborating in the blue economy as a result of they possess the energy, information, and abilities that will be controlled to drive the expansion of a sustainable blue economy.

REFERENCES

- Abdullahel, B. (2017). Our Oceans and the blue economy: opportunities and challenges, 10th international conference on marine technology. Available at <https://www.sciencedirect.com/science/article/pii/S1877705817332447>
- Adeyemi, K. S., & Abiodun, A. J. (2013). Development of the non-oil sector in Nigeria: challenges & lessons for less developed countries. *Covenant Journal of Business and Social Sciences (CJBSS)*, 5(23).
- Afolabi, D. (1998). *The Nigerian mangrove ecosystem. Third regional workshop of the Gulf of Guinea large Marine Ecosystem*. (GOGLME). Lagos, Nigeria.
- Amaechi, R. (2018). Blue economy sustainability: Nigeria to partner other African countries. Retrieved: <https://www.nimasa.gov.ng/press-center/post/blue-economy-sustainability-nigeria-to-partner-other-african-countries-amaechi>
- Anderson, M. G., & Peek, P. M. (2002). Charting a course in: Anderson, M. G. and Peek, P. M. (eds.). *Ways of the rivers: art and environment of the Niger Delta*. Smithsonian institution, New Yoke Pp 25 – 36.
- Bertazzo, S. (2018). What on Earth is the blue economy? Human Nature -Conservation. Retrieved, Conservation International Blog.
- Black's Law Dictionary (8th Ed.) pg. 215.
- DESA (2017). Towards sustainable development for all. Retrieved from, United Nation Bulletin.
- Ebarvina, M. C. M. (2016). Economic assessment of oceans for sustainable blue economy development. *Journal of Ocean and Coastal Economics*, 2(2), 7-14.
- Economist Intelligence Unit, (2015). The blue economy, growth, opportunity and a sustainable ocean economy; *A Briefing Paper for the World Ocean Summit*, Available at <https://www.eiu.com>
- Hoegh-Guldberg, O., (2015). *Reviving the Ocean Economy: the Case for Action – 2015*.
- Nyananyo, B. L. (1999). Vegetation. In Alagoa E. J (ed). *The land and people of Bayelsa State: Central Niger Delta*. Onyoma Publications.
- OECD (2012). The Future of the Ocean Economy – exploring the prospects for emerging ocean industries to 2030 Mare. Retrieved, European Commission.
- Pauli, G. (2010). *The Blue Economy: 10 years-100 innovations-100 million jobs*. United State: Paradigm Publications.
- The East Asian Seas (EAS) Congress (2009). Building a blue economy: Strategy, opportunities, and partnerships in the Seas of East Asia. *EAS Congress Bulletin*, 131(9)
- The Webster Dictionary
- UNEP (2013). Green Economy Definition. <http://www.unep.org/greeneconomy/AboutGEI/>

UNEP, FAO, IMO, UNDP, IUCN, GRID-Arendal (2012). Green Economy in a Blue World.

United Nations Conference on Trade and Development (UNCTAD), (2014). *The oceans economy: opportunities and challenges for small island developing states (SIDS)*, United Nations, Geneva.

United Nations Economic Commission for Africa (UNECA). (2016). *The Blue Economy*, Available at www.uneca.org

United Nations Department of Economic and Social Affairs (DESA), (2017). Mapping the linkages between oceans and other sustainable development goals: A Preliminary exploration, *DESA Working Paper No. 149*, Available at <https://www.un.org/development/desa/publications/working-paper/wp149>

Wairimu, E., and Khainga D., (2017). Kenya's Agenda in Developing the Blue Economy, Available at <http://kippra.or.ke/kenyas-agenda-in-developing-the-blue-economy/>

World Bank, (2016). *Blue economy development framework - Growing the Blue Economy to combat poverty and accelerate prosperity*, Available at <http://pubdocs.worldbank.org/en/446441473349079068/AMCOECC-Blue-Economy-Development-Framework>

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