

# Safeguarding Blue Economy to Ensure Sustainable and Inclusive Growth

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**ABSTRACT** - Blue economy has derived its name from vast blue ocean and water bodies spanning across the earth and providing substantial economic marvels since time immemorial. Some government authorities and organisation are referring the term blue economy and ocean economy interchangeably. Blue economy is newly emerging trend to protect and preserve marine life, manage oceanic input factors sustainably and also to utilise marine resources mindfully so that present and future generation will never run out of valuable life support system. Basically it is constituted with economic activities that generate sustainable wealth from world's oceans and coastal stretch. It is estimated that worldwide ocean economy is worth of about USD \$1.5 trillion per year. Nearly eighty percent of volume of global trade is conducted by sea. Approximately 350 million of jobs are associated with fisheries across the world. It is predicted that 34% of crude oil supply will come from ocean exploration by 2025. Aquaculture is rapidly progressing food sector in the world and offers around 50% of fish to fulfil human appetite. Ocean, sea, river and various water bodies are bountiful and extends copious gainful offers to mankind. Millions of impoverished individuals rely on ocean and coastal resources for livelihood and sustenance. Fisheries, aquaculture, shipping, tourism, maritime trade to energy production along with other activities are solely dependent on marine ecosystem. Mindless extraction of marine resources, using seas as dumping ground for monumental waste of human society, acidification of oceanic water, overfishing, and staggering coral bleaching through industrial effluent can jeopardise marine biodiversity and ecosystem gravely. Government of nations, civil society, corporations and institutions reliant on marine life should contemplate, formulate and implement policy measure to protect, preserve and utilize marine reserve sparingly and justifiably to attain economic sustainability and inclusive growth in real term.

**KEYWORDS:** *Blue economy, Marine resources, Sustainability, Inclusive growth, marine pollution,*

## I. INTRODUCTION

About two-third of the earth is covered by water. Massive oceans, seas and water bodies are integral constituent blue economy. As per the definition of World Bank, blue economy refers to "sustainable use of ocean resources for economic growth, improved livelihoods, and jobs while preserving the health of ocean ecosystem." European commission delineated blue economy as embodiment of all economic activities associated with oceans, seas and coastal regions. It encompasses wide spectrum of interlinked established and emerging sectors. The Commonwealth of Nations expressed it as an emerging trend which emphasises on better management of our ocean or 'blue' resources. Conservation International (CI) highlighted the fact that blue economy incorporates economic wellbeing that may not be transacted in market. For instance, cultural values existing in coastal life, precious biodiversity restored in marine ecosystem, absorption of air pollution over the years by oceans and seas are simply priceless. The Centre for the Blue

Economy has clearly specified about three areas of concern in this noble mission such as the contribution of the oceans to the economies as a whole, sustainability of marine ecosystem and impact of potential growth opportunity of ocean economy on developing and developed nations.

Our world oceans have huge stock of valuable resources such as diverse flora and fauna, precious stones and gems, oil and natural gas reserve, assorted minerals, sand and gravel, exotic fossil and coral reef and non-conventional energy in the oceanic water in the form of wave and tidal energy, biomass energy. Ocean plays a pivotal role in cleansing the air we breathe. Oceans supply more than 50% of world's oxygen and absorb 50 times more CO<sub>2</sub> than our atmosphere. Oceans are active in climate regulation on earth. As it is layering 70% of The Earth's surface, it is capable to transport heat from the equator to the poles and hence responsible to regulate our climate and weather pattern. Maritime transport is vital for world economy because 90% of world's trade is conducted by sea. Ocean provides economic activities to the world worth over several trillion dollars per year. Ocean

provides enormous amount of seafood to provide livelihood and take care of nutritional requirement. Astonishingly, conspicuous food such as Peanut butter and soymilk are enriched with ingredients from sea. Pharmaceutical industry is heavily indebted to marine resources to provide live saving drugs to treat cancer, arthritis, Alzheimer's disease and heart ailment. Ocean is also generous in fulfilling recreational need of humankind. Be it fishing, boating, kayaking, bungee jumping or scuba diving, it offers plethora of easy-going leisure pastime to adrenalin driven adventure sports to revellers. Irrespective of invaluable services and resources offered by oceans of the world, the relationship human society is at critical juncture. Human indifference and illegitimate spoilage of marine resources over time need some restriction and damage control now. Fight to safeguard ocean's ecology, biodiversity and coastal life is one of the mightiest and defining challenges of our time. Unless human callousness is retrained, fury of ocean in the form of El Nino due to ocean warming in equatorial pacific region or tsunamis in south east location can cause collateral damage to human existence.

## II. OBJECTIVES OF THE STUDY

The chief objectives of the research paper are scripted below-

- i. To highlight the reasons to protect and preserve marine ecosystem in the face of environmental degradation
- ii. To showcase strength and potentiality of marine resources to support sustainable economic growth

## III. METHODOLOGY

The Descriptive and analytical methods are followed to conduct the research operation on aforementioned topic. The concept of blue economy is novel in academic, economic setting and in social parlance. It is at the blossoming stage so people are not mostly conscious about it. There had been epistemological approach pursued in discovering expanse of oceanic facts and information. It had empiricism at the core as the study was about investigation of phenomenon experienced about marine economy. Secondary data, facts and information is collected and used. Columns in business magazines, newspaper articles, web publications from trustworthy sources had been used to ascertain the legitimacy of the new concept. Comprehensive narrative had been given on concept, expanse of the subject matter, profound implication of blue economy, sustainability plus viability factor and beneficial impact. Catastrophic consequences are mentioned to alert about damaging repercussion of marine biodiversity. Environment, ecology, resource management is of big concern in 21<sup>st</sup> century and the paper tracked oceanic status and its jeopardy so that formidable reality get revealed. Suggestions had been furnished and course of actions were delineated to protect oceanic wealth. Further research is feasible to elucidate the potentiality, status and prospect of blue economy.

## IV. LITERATURE REVIEW

In the article titled 'The Blue Economy – Ocean of Opportunity or Sea of Troubles?' by Daniel Steadman published in The Maritime Executive dated 6th March 2019, author has expressed concern about marine interest. He stated categorically that marine resources are limited and it would be a grave sin to extract its resources indiscriminately. He expressed apprehension about rising numbers of marine industries to cash in on blue carbon and modern biotech possibilities. He mentioned about both risk and opportunity lie with blue economy and emphasized that governments and marine industry leaders would have to play a decisive role to protect marine biodiversity. Greed of global superpower should not make marine resources their sole privilege and ignore global requirement. There should be integrated approach to deal with ignorance, indecision, injustice and decline in biodiversity. Capacity to absorb and store carbon is a real gift to mankind from ocean and enforcement of law is necessary to safeguard ocean's health and wealth and make blue economy sustainable.

In the article titled 'We can save our ocean in three steps - if we act now' by Kristian Teleki published in the World Economic Forum dated 12<sup>th</sup> Oct, 2020, author has pointed out the urgency for protecting ocean for progress and prosperity of human civilization. There is a serious need for behavioural change to stop human exploitation of the ocean which caused monumental and irreparable damage. Fish stock has depleted unimaginably due to over harvesting, plastic dumping polluted marine ambience harrowingly and carbon emission wreaked havoc with ocean warming and acidification. Glimmering hope is the formation of Global Ocean Commission, evolving social, corporate and bureaucratic consciousness, UN Ocean envoy and conferences and attention of G7 nations to restore and retain marine resources. World Economic Forum has also come forward aligning sustainable ocean economy with Sustainable Economic Growth with 14 in order to find remedial measure to oceanic damage through regulation, governance, knowhow and finance. Author had delineated about the pressing need for creating blue solution to configure sustainable blue economy as it is equally contentious as sovereignty of the nation, climate change, food security, extreme poverty, clean energy and regional security.

In the report 'The Potential of the Blue Economy' published by International Bank for Reconstruction and Development in association with United Nations Department of Economic and Social Affairs and other internationally recognised institutions in 2017, we find overview and extensive description of blue economy and its implication and significance on marine resources for Small Island Developing States (SIDS) and Coastal Least Developed Countries (LDC). The literature of the report stressed on future course of action to make blue economy long serving

support pillar for human civilization. There was the appeal for realizing potential of blue economy and making it sustainable and value creating. Need for protecting marine resources by law and investment of capital by international body and corporate group resonated emphatically. Various dimensions of marine based economy had been unfolded and narrative of miscellaneous challenges which hamper oceanic consistency delineated explicitly. The paper concluded with reminding of action plan and target to secure, support and sustain priceless oceanic ecology.

In the article '8 ways to rebuild a stronger ocean economy after COVID-19' by Douglas McCauley, Kristian Teleki, Gloria Fluxà Thienemann published in Global Agenda of World Economic Forum dated May 12, 2020, we find the concern of authors to create futuristic sustainable ocean economy with renewed vigor in post COVID time period. The impact of pandemic had been immense which caused tourism loss worth \$ 7.4 billion and threw 75 million livelihoods in grave uncertainty. Maritime shipping reduced record 30% low and lockdown caused decline in seafood requirement by 80% in Western Africa and China. Suggestions had been cited elaborately such as revival of oceanic tourism, employment creation for restoration of marine park and costal ecosystem, decarbonizing shipping activities, electrification of ports, availability of zero emission fuels, prevention of over-fishing, development of oceanic parks and digitization of oceanic activities to fathom oceanic potentiality, improving surveillance and monitoring to safeguard oceanic wealth and preventing illegal fishing.

## V. COMPONENTS OF BLUE ECONOMY

Ocean does a great service to mankind which goes unnoticed or undermined most of the time. It is instrumental in promoting economic progress, provision of livelihood and social inclusion. It is supportive towards tourism, aquaculture, recreation, seabed extractive activities, international trade, marine biotechnology and maritime transport. It acts as chief source of food and fulfilment of protein based nutritional requirement. Astonishingly peanut butter and soymilk find its ingredient from marine resources. The ingredients for cosmetics, pet food and pharmaceutical outputs are provided by marine ecosystem. Ocean silently absorbs  $\text{CO}_2$  in the air through carbon sequestration and reduces pollution in the air. It invariably helps in reversing global warming phenomenon. The requirement for mineral by various industries are satisfied by oceanic mineral extraction. Marine biotechnology and ever-growing bioprospecting are instrumental for sourcing healthcare centric resources, enzyme preparation, nutraceutical experiment and expansive exercise. Vast ocean also acts as huge reserve oil and natural gas which has capacity to meet requirement for energy resources. Scarcity of fresh water for drinking and other purposes can be bridged by salinisation of sea water. Middle East nations such as Qatar, Saudi Arab,

Abu Dhabi set up desalination plants and run it successfully to eliminate water inadequacy in the arid region. The carbon free economy can materialise with usage of endless tidal wave which can be metamorphosed into tidal energy. This alternative energy resource is renewable and restrain from putting strain on environment. Trade and transport are unimaginable in absence of port service and container ship movement. Global growth of tourism which got affected due to contagious COVID 19 in 2020 is mostly dependent on several national and international tourism authorities. Yachting in the azure ocean or cruising exotic seas in luxurious ships are in priority list of modern recreation. Time has come to avoid marine base as waste disposal place and be mindful about marine creatures, aqua species and preserving of marine biodiversity. Coastal livelihood and living would be jeopardised if marine resources are ransacked. A sizeable population on earth live on island nations such as Fiji, Sri Lanka, Cuba, Papua New Guinea, Jamaica etc where economy remains dependent on bounty of oceans and coastal beauty.

## COURSE OF ACTION TO RESTORE THE VIVACITY OF BLUE ECONOMY

Ocean and marine resources had been support system for human society for long. Human beings exploited and plundered its wealth extravagantly for narrow self-centred pursuit. Earth's environment is constituted with atmosphere, hydrosphere, lithosphere and biosphere. Hydrosphere is vital for human existence and so also others. But marine environment had been polluted mindlessly and made it dumping ground for plastic, untreated sewerage and other non-biodegradable objects. Now it has reached at tipping point and marine system is deeply troubled. Some serious course correction is need of the hour. Serious remedial measure is inevitable to rescue marine reserve. There should be scientific survey by concerned government and corporation whose activities and existence are dependent oceanic body. Data collection, analysis and interpretation of the same is necessary to gauge the present status and damage occurred to marine set up. There should be integrated marine management approach to shield marine resources and repository. There is need of cohesive framework for citizen engagement, legislative apparatus and regulatory monitoring to safeguard marine ecosystem. policy planning, implementation of the same, monitoring and institutional assistance should be given due importance country-wise. There should be campaign and generation of awareness to sensitize people about multiple utilities of oceanic infrastructure. Policy guidance and fund disposal by Global Environment Facility (GEF), United Nations Development Programme (UNDP), World Bank Group, United Nations Environment Programme (UNEP), and Food and Agriculture Organization (FAO) can be effective in ensuring best practices and to develop holistic sustainable blue economy. There should be concerted effort from all stakeholders to understand linkage between land-based geography and

marine set up and restrict the tendency to further damage marine resources with accountable, practical and transparent diligence. Coherent plan and policy will breathe life into coastal and marine biography which had faced human negligence and atrocity for long.

## VI. CONCLUSION

Ocean is a mega support system for mankind. It's contribution in progress and prosperity of human society remained immeasurable. Since time immemorial oceanic energy, wave, route, resources, beauty and charm enriched and enliven people endlessly. But human society remained indifferent to its gradual erosion and exhaustion. It failed to perceive degradation of oceanic strength and consequence of severe damage to oceanic capacity. Personal greed and mercenary interest led to random carbon bleaching, pollution of water with hazardous chemical or chemical effluent, over fishing, recurring oil spill, hunting of marine creatures, dumping of plastic material and treating ocean as waste dumping space. Ocean is on the last leg in 21<sup>st</sup> century after tirelessly serving human society. The marine ecosystem is in great danger and deterioration for marine biodiversity has reached at tipping point. There is dire need of protecting and preserving marine economy. Integrative, coordinated, concerted collaborative effort is necessary to avert monumental loss due to denudation of oceanic repository. Ocean should be given due attention as it is the hub of economic activities and supplier of miscellaneous resources. We must not forget that ocean is a treasure-trove and it contains food, fuel, fine minerals, fascinating gems and fabulous marine world. It is duty of all coastal nations and ocean dependent economies, government of republics, international governing bodies such as UNDP, World Bank and UNESCO to formulate and implement rules and laws, familiarize people and society, monitor and manoeuvre oceanic activities, nurture and nourish biodiversity and eliminate extravagant extraction and exploitation of marine resources. Judicious behaviour and discerning attitude of all oceanic stakeholders would ensure thriving ocean-based economy, empowerment of coastal people, assurance of unending business, trade and commerce, abundant employment opportunity, consistent supply of food and other oceanic bounties, sustainable development, inclusive growth and last but not the least peaceful, progressive and prosperous marine based civilization.

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