Bolstering Sustainable Growth through Blue Economy A Case Study of Pakistan

Urooj Aijaz

*MD Institute of Research & Promotion,
National Coordinator of Blue Economy / Faculty Bahria University Karachi/ Member KCCI
uroojaijaz.bukc@bahria.edu.pk*

Hassan Daud Butt

*CEO KPK Board of Investment / Ex- Project Director CPEC
hdb4049@gmail.com*

Abstract

High pace of industrial growth accompanied by the population surge is putting enormous pressure on economic planning. From time immemorial oceans and waterways have been a source of sustainable economic prosperity as oceans cover 70 percent of the earth's surface and have the potential to support human economic activity. Today, nations are putting effort and resources to leverage their maritime potential for the sustainability and prosperity of their populace and also provide opportunities for the next generations in a hope that through proper planning and implementation of the maritime policies an eco-balanced maritime strategy can be inactive that ensures socio-economic development of the respective countries. Pakistan is blessed with a coastal belt of 1,046 km which is strategically located and is part of the 21st century's Maritime Silk Route. With natural ports having full potentials like Gwadar and Karachi that not only connects regional stakeholders but also has the potential as the engine of growth and development for Pakistan and a regional hum of maritime connectivity. It is evident from empirical data that the Blue economy of Pakistan is extremely important not only for Pakistan but also for the entire region as part of MSR. This paper targets to analyze the maritime sector situation of Pakistan under the Blue economy and its pertinence for Pakistan through some realistic policies as the constructive implementation of maritime sector-related policies will play a pivotal role in attaining the Blue growth in Pakistan. The key objective of this study is to focus on the sustainable blue growth of Pakistan, as there is a void in the literature on this topic concerning to

Pakistan. This paper fills that gap by offering a conceptual framework to guide policy-makers in Pakistan on the policy recommendations to attain sustainable blue growth in Pakistan.

Keywords:

Blue growth, Sustainable growth, Blue economy, MSR, Pakistan, UNEP, Pakistan

Introduction:

“Even if you never have the chance to see or touch the ocean, the ocean touches you with every breath you take, every drop of water you drink, every bite you consume. Everyone, everywhere is inextricably connected to and utterly dependent upon the existence of Sea”

-----Sylvia Earle.

From the past few decades terms related to Blue Economy and Blue Growth are under discussion and also discussed in the policy-making circles all around the world and as it is also associated with the sustainable development goal as country's ocean space and resources are vital as human drivers of change. Growth of Blue Economy is concerned with the cleavage of socio-economic activities and development from environmental mortification and intensifying the benefits which may emanate from marine assets and long term benefits in the form of prosperity by a country or a region befitting the economic welfare of all population and the humanity conserving the environment. Blue Economy reflects the utilization of sea and the use of seaborne resources for sustainable economic prosperity and development but in this regard, effective and efficient use of natural oceanic and marine resources within the boundaries of ecology becomes predominant including the sourcing and usage of domestic inputs and where possible, the employment of low cost blue energy alternatives to grasp the desired environmental outcomes along with the economic and trade benefits associated with the sea through the conservation and sustainable use and management of biodiversity of maritime ecosystems and other blue resources. Water being the life of every living creature repressing its importance and enforces the world to call it Blue Gold. The Blue sphere which humanity occupy is distributed by sea but it will connect the whole world with a connected and shared future so it is important for all oceanic nations to develop their nations through governance and support of desired policies so that the challenges towards achieving a Blue economy with the greatest need for extensive use of the ocean to achieve the country's blue economy aspirations.

The new maritime boundaries include one of the largest estimated gas and oil reserves in the region; identify potential to grow moderately, and investment in the coastal tourism sector which can bring enormous revenue for the Government. Several potential ocean

industries have been identified including coastal and offshore wind generation technologies.

Annual report of 2015 UNEP (United Nations. Environment Programme) highlighted countries like Seychelles, Norway, Barbados, Madagascar, Gambia as successful nations with efficient utilization of blue economy and the attached blue resources, and now the concept of blue growth is also identified and utilized by the world's largest economies like China and USA and now Pakistan is striving hard to gain the Blue growth as a parallel economy like our neighboring nations like India and Bangladesh who already earns huge returns after taking policy initiatives regarding blue economy. Bangladesh earns almost \$6 billion in 2019 (Report by World Bank, 2021, March 31). in different associated blue fields so there is a dire need to give boost bundles to our Maritime Blue Sector not only through maritime policy but also through green and blue initiatives.

Literature Review

The world is struggling to maintain their clean Blue oceans gifted by nature but badly damaged by humans and their activities. To improve the environmental issues that directly impact climate change and indirectly effect the wellbeing of humans, SDG's goal 14 was introduced that targets conservation and sustainability of oceans but wellbeing of humans are determined by social indicators. Evaluation of these social indicators represents disconnect between the policies and targets. (Nash, et al. 2020). The world's estimated population by 2050 is 9 billion that enforce to explore new resources from the land to deep oceans available in this world to meet the lofty demand of food for the population but for better Agriculture synthetic fertilizer is mandatory and removal of natural fertility due to the use of artificial fertilizers require some compulsory component that accelerates soil production and safe as well. Nitrogen fertilizers is the option that sustain crop productivity (Yara-Varón, 2017) this target is achieved via Blue urea fertilizers through integrated excess renewable energy by electrolytic formation of H₂ and after passing many reactions. This most sustainable fertilizer not only enhance productivity without damaging the soil but a hope that helps to fulfill the needs of the population (Driver, et al. 2019). Two third of the world is covered by the ocean which intensify the economic development by modes of transportation, by facilitating global supply chains, by natural reserves of oil and gas, by variety of sea food and many other ways (all are measurable) but unfortunately some of the benefits which we receive from our oceans are less palpable and hard to quantify like support in climate through absorption of almost 90% the heat caused due to thickening of atmospheric blanket of carbon and other pollutants (Conathan, & Moore, 2015). European countries realizes the fact that growth from traditional modes are not enough to cope the requirements of their population so there is a strong reason to take advantage from the ocean economies

(Tarvainen, Tolvanen, & Repka, 2015). Oceans are one of the decision maker of our climate and almost half of the oxygen required for breathing by human beings are due to oceans hence humanity is almost eighty percent depends on it. (Spalding 2016) and it is observed that almost ninety percent of trading facilitated by the sea and approximately 3 billion population are directly or indirectly associated with sea for their livelihoods either by coastal tourism, fishing, energy and other areas (United Nation Conference on Sustainable Development 2012) and according to food and Agriculture department of UN alone fisheries contribute almost \$100bn per year to the world economy (Food & Agriculture Organization of UN 2014). Identification of key stake holders related to ocean Economy is very important aspect as they are the drivers through which the world may achieve their targeted SDG's either by policy making or by setting the scope and boundaries of Blue economy (to avoid confusion as most of the people mix SDGs 3 and 8 but this concept is closely related to SDG's 14-17). (Lee, Noh & Khim, 2020). There exist a confusion regarding the policies related to Blue economy that either old Governance and policies fulfil the required goals or countries need to review their policies and mode of Governance to accomplish the targets of Blue Growth, sustainability, socio economic development and environment degradation so every country must identify the policy gaps to accelerate Blue sustainable growth (Voyer et al., 2020). Developing a sustainable Blue sea is the dream of every ocean economy but many questions regarding blue growth remains untargeted at the time of making policies as ocean economy is a combination of natural capital inputs (generated from sea) and human or manmade capital inputs so it is important that Governments of these nations must identify the economic worth of their oceans and design policies that connects all actors and ensure economic activities by identifying the loop holes and the entry points that will change the flow of inputs from marine eco-system to marine or blue economy (Patil, et al., 2018). Maintenance of sea environment is an important aspect of sustainable blue economy and its degradation will impact the entire humanity so, it is important to engage the stakeholders in achieving the environmental targets as their lives are largely depends on oceans so, policy making is not effective unless the three main components of blue economy are not synchronized and these components are Policy makers, economic stake holders and societal stakeholders because policy actions have quick visibility while the climate change is a social and economic reality which will impact slowly but dangerously so sustainability requires the participation of every component (Hoerterer, et al., 2020).

Objectives of the Study

This study have the following objectives:

1. To identify the topical situation of Blue Economy in Pakistan.
2. Attempts to identify the conceptual framework regarding Blue Economy
3. To identify the achievement and recommend some policies to address the challenges of Blue Growth and enable Pakistan to become a Maritime Nation.

Rationale of the Study

In the present globalized and challenging world where every country is struggling hard for the economic wellbeing of their nations, countries with marine resources are blessed to have dual economies (traditional economy and a parallel blue economy) to compete and Pakistan is one of that nation. These Blue resources will distinguish Pakistan from many other economies and reduce the dependence of country on purely land resources. Almost 70-80 percent global trade are facilitated via sea so, sectors like transportation, tourism, renewable energy, ICT and AI in maritime sector, food, natural resources and many others can be the source of Blue growth for Pakistan. In addition Pakistan is working hard to emerge as a maritime nation and targets to achieve sustainable blue growth through the route of CPEC which is the part of MSR completed in 2030 while ports are playing crucial role in this regard (Gwadar Port is already operational). To gain and maintain its distinguished appearance in the region and among maritime nations some strategies are already taken by the Government (maritime policy is one of the part of it) while few policies are recommended to make the part of strategy for building better Pakistan. This study is developed to identify the weak areas that slackens our Blue Growth along with the policy recommendations and theoretical framework that will accelerate the pace of growth by giving boost bundles and promised a sustainable Blue future.

Conceptual Framework

Pakistan is blessed with the rich history and one of the oldest civilization called Indus civilization like Mohenjo Daro, Harappa, Budha civilization followed by lot of invaders from central Asia and British rule in recent past. This historical inheritance reflects the availability of drinking water and food which attracted dwellers and invaders along with its location at bank of old Silk Road too. But the location under ice hills of Himalaya with abundant arable land having deep roots for producing food will make Pakistan a nation with Dual economy which is traditional and Blue but to take advantage from this additional resource it is important for Pakistan to emerge as a Maritime Nation that is guarantees country's future and largely depends on Maritime security and Maritime economy with the support of aggressive and effective maritime policies.

The re-emergence of MSR (Maritime Silk Road) in the form of Belt and road initiative (BRI) is largely connected with the maritime routes. The Global supply chains have extensive pressure of time and cost which make maritime logistics the utmost important so, Pakistan has huge opportunity to emerge as a maritime nation by developing maritime culture and this emergence should reflect in the following areas,

Maritime Security

Blue or Maritime Economy

Blue or Maritime Competitiveness

These three outcomes cannot be achieved unless the Pakistan emerge as the Blue or Maritime nation which requires special commitment of state and all its stake holders with special support by designing diversified mechanism of policies that cater each and every aspect of Blue Green Economy.

CONCEPTUAL FRAMEWORK OF BLUE ECONOMY IN PAKISTAN

The jigsaw puzzle of Pakistan's Blue economy has four most main components,

- 1) Pakistan is rich in marine resources but most of it cannot be explored yet so, dire need to explore its potential.

- 2) For exploring and enjoying full benefits of Blue Economy, Modern ports are the pre-requisites which may connect on shore and off shore activities within sea

We have fully operational Karachi port and Gwadar port and all our ports are attached with SEZ's to take the better advantage.

Modernization of these ports are very important as the world is now moving from manual port operations to fully smart ports, to realize that whether we are excelling through our ports we need to know that 95% of Pakistan's cargo including containers liquid and bulk cargo are passing through Karachi port and Port Qasim and revenue is KPT and Port Qasim is Rs.20 billion annually instead of having the route to land lock countries. Central Asian countries utilizing the ports which are 4000 km away while our Gwadar port is only 2000 km away but the question is that,

- Do we have logistics to take advantage?
- If we have logistics than do we have right and enough security for all cargo freights to cross Afghanistan to reach central Asian states? Which imply our wish for peace is extremely important.

In order to have best of our Maritime development we need to improve our shipping Capacity, PNSC have 11 ships and total freight cost to Pakistan is about US \$5 billion. PNSC only handle 5% of cargo to and from Pakistan highlighting the fact that there is a captive market for \$4.75 billion per year which goes to foreign sea liners and if we don't have regional connectivity we lose huge revenue and we are losing almost equivalent to what we have negotiated with IMF's current extended fund facility program that is, \$6 billion (over period of 3 years).

- 3) Dubai and UAE gains huge revenues by planning tourism activities at their ports and coastal lines and due to our internal conflict we are unable to develop it so and our almost no noticeable work done by coastal development authority so far and even instead of having huge coastal belt we are unable to develop even a single resort and other tourism activities causing huge loss to Pakistan.

In almost all maritime nations domestic and foreign cruise ships are working generating huge revenues for their countries operated by private sector. Pakistan may utilize and gain revenues by domestic cruise ships either from Karachi to Gwadar or Pasni and from International cruise services through offering hajj and ziarat operations via Ships which not only contributes to GDP but also cost effective for our Hujjajs and other pilgrims through operations in Saudia, Iran and Iraq which we are losing right now and one of the reason of absence of these services is again security concerns.

- 4) Potential of Gwadar port lies primarily in trans-shipment activities. Instead of having more distance of Gwadar as compared to Karachi trans-shipment cost at Gwadar is much low than Karachi which is also a positive point for Gwadar port as a trans-shipment port.

Policy Recommendations:

On the basis of in-depth study few policy recommendations are essential to follow as a Sustainable Blue growth plan that guarantee Pakistan's Socio-economic Development and a prosperous Blue future as a dual economy:

- Announcement 5 year and 10 year plans that will target to make Pakistan Blue Maritime economy in coming future.
- Allocation of special budget for blue growth in the entire plan's period
- For developing ourselves as a maritime nation special educational programs must be designed that not only creates awareness but also will create sense of responsibility (like Singapore) towards our blue sea at the basic schooling level and advance programs at higher education levels to develop blue human resource.
- Vocational and technical training institutions must be developed to promote education related to maritime sector to cope up the challenges of CPEC to increase employability.
- Special Maritime Industrial Zones must be created where needed and digitalized the existing units with full technological requirements.
- Expo of assets is a common practice globally so, Government must focus on set up of expo related to Blue resources.
- In order to develop ourselves as a Blue maritime nation, Maritime Businesses must be exempted from all taxes for 15-20 years along with the special investment facilities related to Blue startups that will bring Innovation and Invention in this sector.
- Maritime research fund to be allocated and improved.
- Maritime research institutes and technology parks are developed to promote R&D and Innovations.
- Maritime policy study centers must be set up to design and review the policy continuously for improving effectiveness.
- Maritime committees must be formed in Senate, National and Provincial Assemblies having blue areas separately.
- Maritime related media programs, documentaries and other programs must be produced and encouraged that not only creates awareness but also increase the interest of our future generations in the Blue Economy and allies areas.

- Pakistan needs to develop its shipyard aggressively, Karachi shipyard built 63 years ago but unable to excel as we expect like Singapore, Hong Kong, Bangladesh which benefit other regions players instead of Asia.
- Shipping policy announced recently doesn't reflect the welcoming attitude towards private sector.
- We don't focus on our shipping industry while our neighbor Bangladesh is now involved in exports of vessels and small ships so, by developing this industry we not only able to fulfill our domestic needs but also able to gain revenue from its exports.
- Blue Tourism will work as a catalyst in the Revenue of Pakistan like Singapore, Malaysia and many other countries so, Investment in this regard should be encouraged either by private sector or by public private partnership and joint ventures.
- Maritime development not only contributes in terms of revenue but contributes in socio economic development of the region through job creation, business opportunities, better living standards, lower poverty and prosperity of a common man.
- Strict policy guide lines are defined for companies trading through coastal belt to protect the environment and charge against carbon footprints.
- Government should work with the SBP to provide its full support to Maritime sector to make Pakistan more competitive player of the region.

Conclusion

Developing countries like Pakistan are doing economic reforms since late 70's to increase the pace of their growth and to control inflation in order to meet the macro-economic goals and SDG's by lifting inward economic policies towards outward and from close to open economies but still after passing decades we are struggling for our growth, debt burden and inflation crisis because only demand and supply will not change our fate unless we utilize the resources gifted by God. Oceans all across the world have great importance necessary for the survival and revival of economies and this precious resource of sea gifted by the Almighty is not divided into islands but connected by their Blue Sea that represents our joint future so, Blue economy is emerged as an alternate economy globally and to utilize this alternate Pakistan and other developing nations must cherish their livelihood through Blue Governance as the dependence on the free passage of goods through oceans holds the key for trade oriented economic structure. For Pakistan, maritime trade is the back bone of our economy as over 95 percent of our international trade is transported through seas. With the renewed propulsion on maritime sector through CPEC and Gwadar Port, the maritime trade of Pakistan will increase manifold as the corridor is destined to provide regional connectivity. China Pakistan Economic

Corridor (CPEC) provides a great platform for China and Pakistan to promote regional trade activity.

Hence, effective and efficient maritime policy frame work must be designed and aggressively implemented for the development of Blue economy in Pakistan through development of sea born trade, environment, provision of food and blue job opportunities, facilitating global supply chains that ensures economic prosperity of Pakistan.

References

- Conathan, M. & Moore, S. (2015). Developing a Blue Economy in China and the United States. *Centre for American Progress*, Washington, DC.
- Driver, J. G., Owen, R. E., Makanyire, T., Lake, J. A., McGregor, J., & Styring, P. (2019). Blue Urea: Fertilizer with Reduced Environmental Impact. *Frontiers in Energy Research*, 7, 88.
- Hoerterer, C., Schupp, M. F., Benkens, A., Nickiewicz, D., Krause, G., & Buck, B. H. (2020). Stakeholder Perspectives on Opportunities and Challenges in Achieving Sustainable Growth of the Blue Economy in a Changing Climate. *Frontiers in Marine Science*, 6, 795.
- Lee, K. H., Noh, J., & Khim, J. S. (2020). The Blue Economy and the United Nations' sustainable development goals: Challenges and opportunities. *Environment International*, 137, 105528.
- Nash, K. L., Blythe, J. L., Cvitanovic, C., Fulton, E. A., Halpern, B. S., Milner-Gulland, E. J., & Blanchard, J. L. (2020). To Achieve a sustainable blue future, progress assessments must include interdependencies between the sustainable development goals. *One Earth*, 2(2), 161-173.
- Nigeria Demographics Profile. (2018). Central Intelligence Agency (CIA) World Fact Book.
- Patil, P. G., Virdin, J., Colgan, C. S., Hussain, M. G., Failler, P., & Vegh, T. (2018). *Toward a Blue Economy: A Pathway for Bangladesh's Sustainable Growth*. World Bank.
- Spalding, M. J. (2016). The New Blue Economy: the Future of Sustainability, *Journal of Ocean and Coastal Economics*, 2(2), 8.
- Tarvainen, H., Tolvanen, H., & Repka, S. (2015). How Can Maritime Spatial Planning Contribute to Sustainable Blue Growth in the Baltic Sea? *Biuletyn Instytutu Morskiego w Gdańsku*, 30.

- United Nations. (2012). *Blue Economy Concept Paper*. Conference on Sustainable Development.
<https://sustainabledevelopment.un.org/content/documents/2978BEconcept.pdf>.
- United Nations. Environment Programme. (2015). *Blue Economy: Sharing Success Stories Inspire Change*. UNEP Regional Seas Report.
<https://www.unep.org/resources/publication/blue-economy-sharing-success-stories-inspire-change>.
- Voyer, M., Farmery, A. K., Kajlich, L., Vachette, A., & Quirk, G. (2020). Assessing Policy coherence and coordination in the sustainable development of a Blue Economy. A case study from Timor Leste. *Ocean & Coastal Management*, 192, 105187.
- World Bank. (2021, March 31). The World Bank in Bangladesh.
<https://www.worldbank.org/en/country/bangladesh/overview>
- Yara-Varón, E., Li, Y., Balcells, M., Canela-Garayoa, R., Fabiano-Tixier, A. S., & Chemat, F. (2017). Vegetable oils as alternative solvents for green oleo-extraction, purification and formulation of food and natural products. *Molecules*, 22(9), 1474.