

INVESTING IN BLUE ECONOMY: PARALLEL OPTIONS FOR ECONOMIC GROWTH

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Abstract

Blue Economy is an emerging investment sector as land divides, but sea connects. Human existence is inherently associated with oceans, as 40% of the world's population lives within 100 km of the coast. Growing population and increasing food and energy demands coupled with diminishing land resources have persistently compelled nations to explore alternate means for sustenance and economic development. Since oceans promise both these opportunities, Blue Economy is increasingly emerging as a new hope for tomorrow. The United Nations Conference on Sustainable Development in 2012, Rio+20, laid the foundation for the Blue Economy to evolve as a viable and sustainable economic model. Potential apart, judicious utilisation of marine resources under enabling environment through sustained policies, requisite investment, effective implementation and regulatory mechanisms is the key to gain economic dividends and providing a livelihood to millions. Although the national maritime and shipping policy was proposed in 2001 and presented in 2021, significant changes and shifts could be implemented in Pakistan's maritime sector. Above all, security management and counter-terrorism efforts are necessary to attract foreign investors to Pakistan. For this purpose, the Qualitative research method through a descriptive-exploratory approach recommends transforming existing maritime sectors by utilising marine resources in sync with policy and organisational reforms.

Keywords: Blue Economy, Continental Shelf, Exclusive Economic Zone, Sustainable Development Goals, Oceanic Resources.

Introduction

Quaid-e-Azam Muhammad Ali Jinnah said, "Despite being a multi-sectoral economy, Pakistan has primarily relied on its land resources. This dependence on terrestrial resources has continued for decades. However, in the contemporary world, innovation and diversification vis-à-vis the economy is becoming the order of the day to boost economic growth. With a target to achieve a Gross Development Product (GDP) growth rate of 6 per cent in the coming years,¹ Pakistan needs to systematically preserve and develop economic sectors supported by bold and urgent structural reforms, particularly in maritime sectors. Given its potential, Blue Economy holds excellent prospects for Pakistan. The United Nations General Assembly adopted 17 Sustainable Development Goals 2015, out of which six are directly linked with Blue Economy. As a bonafide coastal state, Pakistan has immense maritime potential, including an Exclusive Economic Zone (EEZ) of 240,000 square kilometres and an extended

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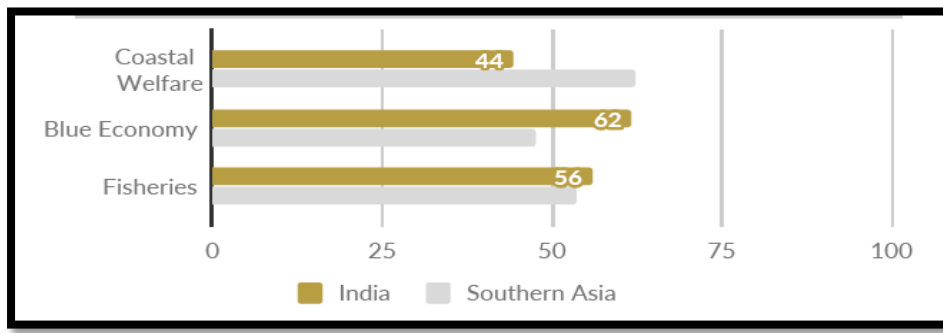
Continental Shelf of 50,000 square kilometres. From extracting marine resources to benefit from the geo-strategic location and developing maritime infrastructure, numerous avenues exist to foster Pakistan's annual maritime turnover and the Gross Marine Product (GMP). GMP is a newer term increasingly used by the coastal states to compare the ocean output to the National product, in particular GDP.

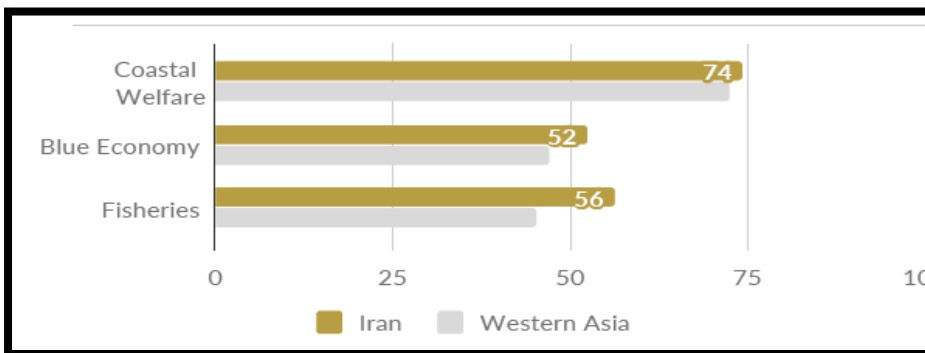
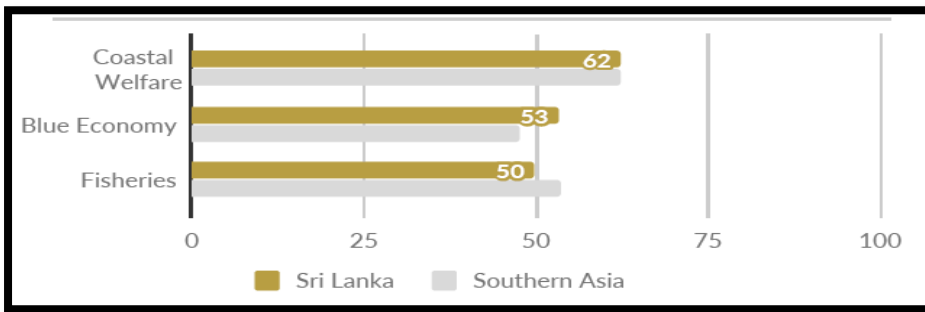
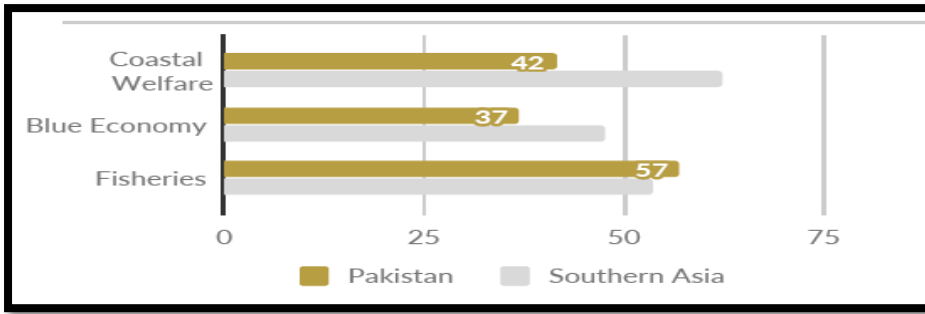
Blue Economy from a Global Perspective

As a newer concept, a global perspective on the blue economy is evolving. Nation states and organisations are defining the concept based on respective potential and areas of interest. Nonetheless, the World Bank and Ministry of Maritime Affairs define the blue economy as "sustainable commercial growth, improving livelihood, and creating jobs using ocean resources while preserving and protecting the health of the oceanic ecosystem."² Because of its relevance to Sustainable Development Goals (SDGs), the blue economy is being globally adopted as a sustainable economic model with the acknowledgement that the world's oceans have a significant role in the sustainable development of coastal states. Blue Economy, being multi-sectoral, encompasses a variety of economic activities ranging from an exploration of sea-based natural resources to maritime industries such as ports & shipping, shipbuilding, ship recycling, coastal tourism, renewable energy and marine biotechnology.

In 2010, the Global Oceanic Economy was valued at approximately 1.5 trillion USD.³ By 2030, this value is expected to surpass the 3 trillion USD mark.⁴ It may be highlighted that Blue Economy has an overall potential of 24 trillion USD and is credited for generating one out of 10 jobs.⁵ While technological advancements contribute to diversifying the maritime domain's exploration, a large part of the world's oceans remains unexplored. Accordingly, it provides more significant prospects for growth as compared to land. In the regional context, as seen on the graph, India, Iran, and Sri Lanka have capitalised on these avenues far better than Pakistan on the Blue Economy Assessment Index.

Figure -1: Blue Economy Assessment Index





(Source: Blue Economic Development Index, Archipelagic & Island States Forum)⁶

Prospects for Pakistan

Realising its significance, The Government declared 2020 the year of the blue economy in Pakistan. Despite the pandemic outbreak, focused efforts continued to redefine policies commensurate with evolving defiance. Along these lines, increased maritime awareness, a revised National Maritime Policy and improved infrastructure can bolster economic progression. Owing to its economic value and wide range of sectors, Blue Economy is rightly considered a parallel option for economic advancement in Pakistan.

The most significant aspect of the blue economy is the efficient and eco-friendly utilisation of marine resources for sustainable economic growth. As technology improves,

it provides greater access to aquatic resources, both living and non-living, while suggesting scientific solutions for their sustainability. A brief synopsis of which will be presented now.

Living Resources

Fish is a staple food commodity valued at 113.2 billion USD comprising open sea fishing and aquaculture.⁷ In Pakistan, the potential of the fish industry is approximately 3 billion USD. Though the industry provides jobs to 1.8 million people, fish exports are currently valued at only 400 million USD.⁸ It can be attributed to the use of primitive means by fishermen, unsustainable harvesting practices, non-availability of deep sea fishing fleet, capacity issues in post-harvest fish processing and depletion of fish habitat due to Illegal, Unreported and Unregulated Fishing (IUUF).⁹ It may be mentioned that the respective provincial Government can suitably leverage Pakistan Maritime Security Agency (PMSA) for effective control over illegal fishing and practices. Establishing a deep-sea fishing fleet, a hi-tech fish processing industry, identification of new fishing grounds, and preservation of existing fish havens can uplift.

A complementary avenue to open sea fishing is Mariculture, a subset of aquaculture, which is "farming of marine organisms for food and other products such as pharmaceuticals, food additives, jewellery and cosmetics in the natural marine environment."¹⁰ This emerging sector possesses significant potential, which can be capitalised through Research and Development (R & D) and incentives. Furthermore, aquaculture may be promoted along the coast to provide earning sources.

The second most crucial marine living resource is Mangroves. They can absorb 4-5 times more carbon dioxide and drastically reduce marine pollution by absorbing toxic nitrates and phosphates in deltaic regions. In addition, mangroves serve as nurseries for over 3000 marine species, including fish, prawns and crabs, thus contributing towards ecosystem sustainability. They can also contribute towards the economy through maritime tourism, in avenues like boat tours, kayaking, fishing, bird watching and aquaculture. Sundarbans mangroves in Bangladesh are a case in point. Saudi Arabia is also planning to plant 100 million mangroves by 2030 as part of the Green Initiative, eyeing a carbon offset of 96 million tons to stabilise the coastline ecosystem.¹¹

Pakistan's Indus Delta mangrove expanse is the fifth largest in the world.¹² Over the past few decades, mangroves have been subjected to deforestation; however, the afforestation campaign by Pakistan Navy in collaboration with the Sindh forest department and other multiple stakeholders yielded positive growth since 2016. Under the mangrove plantation campaign, Pakistan Navy is eyeing the "Green Coastal Belt" and has planted more than 6 Million saplings since 2016.¹³ Accordingly, the mangrove forest in Indus Delta has increased from 86,000 hectares in 2005 to over 130,000 hectares¹⁴ providing livelihood to approximately 500,000 people¹⁵ in the Indus Delta.¹⁶ On average, Pakistan's mangrove area holds an annual value of about 20 million US dollars.¹⁷ It is paramount to highlight that mangrove rehabilitation has also been included in the Pakistan government's 'Ten Billion Tree Tsunami' drive.¹⁸

Non-Living Resources

Now moving over to non-living resources. According to the National Institute of Oceanography (NIO), over 16 billion barrels of oil equivalent gas resources exist in Pakistan's maritime area.¹⁹ In addition, the international Seabed Authority (ISA) evaluation indicates that Pakistan's Continental Shelf has approximately 14 billion USD worth of untapped oil and gas reserves²⁰, and about 4.4 million tons of deep-sea mineral deposits potentially exist in the country's Continental Shelf.²¹

Being a tech-intensive venture, seabed exploration remains a challenge even for developed countries. The only institution mandated for research in oceanography, i.e. NIO, lacks adequate equipment for resource mapping and scientific exploration. Procurement of an Oceanography Research Vessel (ORV) for NIO is currently being pursued. As a stopgap measure, the Pakistan Navy's hydrographic department has been supporting NIO's efforts. Realising the immense potential of non-living resources in our seabed and subsoil, PN collaborated with the China Geological Survey (CGS), which led to the signing of the MoU between MoD/ PN and CGS in April 2019. Accordingly, two scientific expeditions have been undertaken in our EEZ from December 2019 to February 2020; the third is in progress. The more precise estimate will be depicted in the final survey report expected by next year.

Blue economy can offset issues like food insecurity, energy crisis and rising unemployment that continue to mar traditional and land-based economies. The remedy lies in the efficient exploitation of both living and non-living resources. However, effectively utilising these resources is contingent upon robust maritime infrastructure, that is, ports, harbours, shipbuilding repair and recycling under enabling policies and processes.

Pakistan's Maritime Infrastructure

a) Ports and Shipping

Ports are considered the economic lifeline of any country. They serve as gateways for domestic and international trade. To ensure smooth maritime transportation, upgrading port infrastructure and shipping is indispensable. Pakistan has three major ports, namely Karachi, Bin Qasim and Gwadar. The volume of cargo handling at Karachi Port Trust (KPT) peaked at 52.3 million tonnes in 2021, registering a growth of 25 per cent. Similarly, It may be mentioned that as per existing potential PQA, KPT, including South Asia Pakistan Terminal (SAPT), has an unused capacity which may be utilised to jumpstart transit and transshipment activities. The table-1 depicts the under-utilised transshipment potential of Pakistani ports.

Table-1: Under-utilised Transshipment Potential of Pakistani Ports

Terminals	Capacity (Million TEUs)	Actual handling (Million TEUs)	Potential for growth /transshipment /In Transit
SAPTL	3.100	0.003	3.097
KICT	0.700	0.001	0.699
PICT	0.450	0.020	0.430
QICT	1.200	0.002	1.198
COPHS	0.100	0.001	0.099
Total	5.550	0.027	5.523

(Source: Compiled by Authors)

b) Potential for Growth in Transshipment at Karachi Port Terminals²²

Currently, Gwadar port can handle vessels up to 50,000 Dead Weight Tonnage (DWT) on four available berths. However, the port has a potential of 88 berths and can take up to 200,000 DWT ships.²³ Lying astride to significant shipping routes from the Gulf to the Far East and Europe, it can become the cornerstone of national economic development and an efficient route for world markets via transit and transshipment trade.

The success of CPEC hinges upon Gwadar port, a significant 3000 km network linking Gwadar to Kashgar. The container shipped through this route will reach its destination in Kashgar within ten days, compared to 40 days of travel time.²⁴ This massive reduction in transportation costs and time promises substantial economic dividends for Pakistan, all regional stakeholders, and beyond.

Shipping being the prime mover of international trade, it is pertinent to mention that out of 1340 vessels registered in South Asia till 2020, only 11 are from Pakistan. With this limited number of National flag vessels, Pakistan pays approximately 5 billion USD per annum for freight charges to foreign-flagged ships.²⁵ PNSC's share is about 10% of the overall sea-borne trade.²⁶ The capability needs to be gradually enhanced through PNSC and Public Private Partnerships to achieve a 40% lift capacity in shipping as per the United Nations Conference on Trade and Development (UNCTAD) convention. Another welcoming sign to expand into container shipping is the recently issued tender for another four container ships.²⁷

A low-cost option to supplement sea trade is a dhow, which is beneficial for deep-sea fishing and the transfer of light cargo. The point to emphasise here is dhow's negligible cost associated with its upkeep and maintenance and the potential to contribute towards job creation for traditional seafarers.²⁸ Pakistan has small-scale dhow manufacturing setups mainly located in Karachi and Gwadar.²⁹ The paramount requirement is to support this local and largely informal enterprise through appropriate legislation and financing schemes to convert it into a thriving industry.

c) Opportunities

Pakistan can advertise its potential to attract FDI, particularly in the ports and shipping sector. For example, having an 850,000 square meter backup area and four berths, South Asia Pakistan Terminals (SAPT) at Karachi port has added 19,000 TEUs to its cargo handling capacity. Trans-shipment and transit trade via Pakistani ports and vast road infrastructure being built for CPEC offers land-locked and resource-rich Central Asian Republics (CARs) a conducive avenue for investment. Transports Internationaux Routiers (TIR) convention to initiate trade connectivity recently signed between Uzbekistan and Pakistan³⁰ and the signing of the 573 km Trans-Afghan Railway Project connecting Uzbekistan to Pakistan via Afghanistan offers enormous prospects to facilitate trade with CARs.³¹

An initiative by MoMA offering long-term financing, including Islamic financing facilities for potential private investors in the shipping industry, is worth considering as an effort to transform the maritime sector. However promising it may be, there is a need for continued dialogue and review to accrue optimal dividends. Besides attracting local private investors, the campaign may be taken to overseas Pakistanis. Similarly, CARs may also be afforded fair chances vis-à-vis investment in small feeder vessels registered in Pakistan for cargo transportation between Gulf and Pakistani ports.

Though provisions exist, the LTFF for the Dhow industry may be further relaxed to expand their businesses by participating in the country's trade. Such measures will likely generate healthy shipping activity to save foreign exchange and reduce dependence on foreign flag vessels. A case in point is the procurement of a cargo ship and an oil tanker by PNSC, presently in progress.

d) Challenges

The slow pace of infrastructure development in Gwadar Port, inadequate resources to procure National flag carriers, lack of private sector investment in shipping despite facilitation offered by the Government, and non-optimised port operations as evident with the average score of "35.32 in the Liner Shipping Connectivity Index (LSCI)."³² LSCI is jointly considered as a measure of connectivity to maritime shipping and as a measure of trade facilitation. The LSCI of various regional countries is mentioned in table-1.

Table-1:- LSCI Score of Regional Countries³³

Sr. No	Countries	LSCI Score (2021)
1.	China	170.34
2.	India	60.30
3.	Sri Lanka	71.55
4.	Pakistan	35.32
5.	Bangladesh	14.85
6.	Singapore	112.56
7.	UAE	74.72

(Source: Compiled by Authors)

A few reasons that affect the competitiveness of PNSC are a 17% Sales Tax on the purchase of the ship and ten years of vessels' age restriction for long-term bank financing.

Shipbuilding & Repairing

With increasing shipping volume, the global shipbuilding and repair services market is estimated to reach 40 billion USD by 2028, with a significant share in Asia.³⁴ However, Pakistan's contribution to shipbuilding and repairing is limited only to the sole shipyard, i.e., Karachi Shipyard and Engineering Works (KS&EW). With a total capacity of (26,000 DWT), KS&EW is currently operating at full potential and has built more than 450 vessels of different types using efficient resource planning, thereby fulfilling domestic requirements. In addition, our shipyard is getting contracts from Pakistan Navy and Pakistan Maritime Security Agency (PMSA). Recently, the Government inaugurated a 7300 tonnes capacity ship lift and transfer system at KS&EW, which can accommodate 12 ships simultaneously. The same is likely to pave the way for capacity building and self-reliance.

a) Opportunities

Due to global energy highway proximity, approximately 24,000 ships pass through the EEZ of Pakistan annually.³⁵ Therefore, it offers an opportunity for a shipyard in Gwadar to extend repair and maintenance facilities to vessels plying along these Sea Line Of Communications (SLOCs). Furthermore, investment in Gwadar shipyard's construction capacity of 600,000 DWT will allow us to construct bigger vessels and repair more ships at competitive rates.³⁶

b) Challenges

In the context of shipbuilding and repair, the foremost concern is the lack of trained human (HR) resources, which poses a significant challenge for the shipbuilding and repair industry as the Shipyard Institute of Technology (SIT) is the only institution producing skilled HR in Pakistan. Other issues include the limited shipbuilding capacity of KS&EW and the lacklustre participation of private sector investment in the industry.

Shipbreaking

Shipbreaking is also an important industry. Industrial growth is inextricably linked to the use and production of metals in manufacturing and building. South Asia dominates the shipbreaking industry primarily due to lower labour costs. Gadani was one of the world's most prominent shipbreaking destinations. However, our yards lost the ranking due to a lack of specialised expertise and non-conformance to internationally promulgated safety standards.³⁷ As of 2020, 630 ocean-going commercial vessels were sold to scrapyards.³⁸ Out of these, 446 vessels of different categories were broken down on three beaches in South Asia, including 99 at Gadani, Pakistan, 203 in Alang, India and 144 ships in Chittagong, Bangladesh, accounting for 90% of total gross tonnage dismantled globally.³⁹

Like any other industry, shipbreaking is influenced by demand and supply functions. For example, in the coming fiscal year, Pakistan requires more than 40 million tonnes of steel for construction, while Pakistan's steel industry produces 3.8 million tonnes of steel annually.⁴⁰ Therefore, there would still be a demand-supply gap in steel, which the existing shipbreaking sector might fill.

a) **Opportunities**

Analysis of Pakistan's coastline reveals favourable geographic conditions allowing beaching for shipbreaking, which is more cost-effective than the advanced dry dock method.⁴¹ Shipbreaking also provides an opportunity to invest in developing industrial zones, leading to employment chances for the local community and providing necessary materials to be used in the construction industry.

b) **Challenges**

Regarding shipbreaking, major problems include non-adoption of safety standards and high import duties and taxes compared to regional competitors,⁴² dangerous working conditions for labourers such as exposure to hazardous and toxic wastes, poor wages, non-implementation of labour laws, and lack of health facilities. Out of 35 ship recycling yards in Pakistan, none has yet earned Green Certification.⁴³ It can be attributed to the lack of green ship recycling policy measures vis-à-vis shipbreaking. However, efforts are in hand, particularly under the auspices of the Bahria Foundation, to establish a green recycling facility at Gadani to comply with provisions of 'The Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships' which is likely to be effective by 2023.

Coastal Tourism

With its vast coastline, pristine beaches and year-round sunshine, Pakistan has considerable potential for coastal tourism with an estimated worth of around 4-5 billion USD; however, Pakistan earns only 50,000 USD from this industry.⁴⁴ Pakistan can undertake phase-wise development of the coastal tourism sector by considering the examples of Kerala and Maldives.

The tourism sector of Maldives, once declared non-feasible by United Nations, currently contributes 29% to the national GDP.⁴⁵ Maldives developed its coastal tourism sector periodically through four Tourism Master Plans from 1983 to 2017. These master plans were centred on the islands' socioeconomic and physical geography. Similarly, India's Kerala tourism industry generates over 5 billion USD annually.⁴⁶ Kerala formulated two tourism policies, the first in 1995 and the second in 2012. The policies capitalised on the distinctive features of the state and emphasised building support infrastructure to facilitate the tourist.

a) **Opportunities**

Learning from these success stories, Pakistan can capitalise on distinctive tourism features in phase-wise infrastructure development and promoting specific areas for domestic coastal tourism. With improved connectivity through coastal highways, places like Hangol National Park, Khor Kalamat, Astola Island, Ormara, Pasni and Gwadar have immense tourism potential. As an attendant benefit, local communities will have enhanced job prospects and improved livelihood. Moreover, with a thriving domestic coastal tourism sector, development of related infrastructure, and enhanced law & order situation, Pakistan can become a tourist attraction at the international level.

b) **Challenges**

Despite the immense potential, coastal tourism of Pakistan couldn't be developed due to multiple issues, including the slow pace of coastal development, limited infrastructure, inadequate recreation facilities, internal security situation and lack of projection.

Roadmap for Economic Growth

A comprehensive sustainable development and blue economic growth roadmap are required with clearly defined strategic priorities and goals. In this regard, Blue Vision 2035 focuses on "A thriving economy for sustained growth through eco-friendly use of oceans and related maritime resources contributing to prosperous Pakistan." This vision is translated into a roadmap with proposed timelines for blue economic growth in Pakistan, which will serve as a subset for the national economy. It also entails developing and conserving marine resources and attracting optimum investment with the foremost objective of reviving the economy through blue growth.⁴⁷ The practical realisation of Blue Vision is likely to contribute to the tune of 25 billion USD to the National GDP by 2035.

Proposed Blue Vision of Pakistan 2035

The Blue Vision is proposed to be realised in three phases spanning over 15 years. Specific goals have been perceived for each sector in a particular timeframe. The first phase is short-term, from 2021 to 2025, followed by a mid-term phase from 2026 to 2030. In the end, the long-term phase starting from 2031 will be completed by 2035. At the national level, five strategic priorities based on prominent sectors of the blue economy are being proposed, which can bring desired progress

Strategic Priority 1: Ports & Shipping (SDG-8. SDG-9)

A strategic priority of transforming the maritime sector demands improving the business environment, growth and encouraging private investment. Under this dimension, goals for the impending five-year plan are recommended as under;

- a) **Short Term Goals**
- Sustained Operations from Gwadar Port to progressively lay the foundation for transshipment.
 - Involvement of private sector/FDI in developing ports on the pattern of SAPT, Karachi.
 - Exploring regional framework/ viability of small feeder vessels for cargo transportation between Gulf and Pakistani ports.
 - Generating awareness/outreach to the grassroots level regarding financial incentives for Dhow manufacturing.
 - Attracting potential investors through tax breaks and incentives to invest in shipping similar to those recently offered to the construction sector.
- b) **Mid-term Goals**
- Enhancing hinterland connectivity of Gwadar port and utilising its potential to encourage transshipment and transit trade.
 - Timely completion of Gwadar port to improve cargo handling capacity.
- c) **Long-term Goal.** Pakistan National Shipping Corporation (PNSC) to achieve up to 40% share in annual ship-borne trade through the induction of new bulk carriers/ oil/ LNG tankers in the present fleet.

Strategic Priority 2: Shipbuilding, Shipbreaking (SDG-8, SDG-9)

Dimension of shipbuilding, repair and shipbreaking perceives objectives such as undertaking ship design and production-related research and investment to become an internationally competitive shipbuilding industry and developing existing dhow manufacturing industry through incentives to boost fishing vessel fleet. While reviving the shipbreaking sector by adhering to international shipbreaking practices will bring openings for Pakistan's industry. For achieving these objectives, goals for the upcoming five-year plan are recommended.

- a) **Short Term Goals**
- National shipyards may be granted the 'Right of First Refusal' for contracts within the capacity of KS&EW.
 - Incorporating largely informal small-scale dhow building enterprise into a mainstream thriving industry by improving dhow designing and construction methodology.
 - Achieving desired international safety standards and promulgating green ship recycling policy to remain a viable global ship recycling competitor.
 - Offering federal and provincial tax breaks to the shipbreaking industry for ease of business and comply international standards.

- b) **Mid-term Goal.** Establishing technology and vocational training institutes in coastal areas (Gwadar & Pasni/ Ormara) to develop skills for employment in shipbuilding, repair and shipbreaking.
- C) **Long-term Goal.** Construction of Gwadar shipyard and its subsequent operationalisation to become competitive shipbuilding and repair industry.

Strategic Priority 3: Living Resources (SDG-3, SDG-4, SDG-13, SDG-14)

High-quality marine scientific research & technological advancement to transform knowledge into productive activities which will contribute to conserving living marine resources. Likewise, exploring new & emerging sectors such as mariculture to generate revenue through high-value exports. Above all, sustainable and eco-friendly policies for the optimum exploitation of marine living resources may pave the way to achieve perceived goals under this aspect.

- a) **Short Term Goals**
 - Establishment of vocational training institutes for skill development of fishermen.
 - Promotion of aquaculture among the local community along the coastal belt
 - Mandating installation of Vessel Monitoring Systems on fishing vessels through legislation and prioritising installation through a public-private partnership to check IUUF.
 - The commercialisation of mariculture in the fishing sector
 - Enacting legislation to impose stringent penalties to counter the dumping of toxic and hazardous waste and illegal fishing.
 - Developing reforestation and afforestation techniques to improve the mangrove ecosystem.
- b) **Mid-term Goals**
 - Enhancing the capacity of seafood processing plants at Gwadar, Pasni and Karachi along with technological advancements in methods and operations.
 - Identification of fishing grounds through Hi-tech means and their accessibility to fishermen.
 - Financing through banks for the fishing sector on the pattern of the Agriculture Development Bank.
- c) **Long Term Goals**
 - Establishment of a modern fishing fleet with the requisite equipment.
 - The transition from localised mariculture practices to the full-scale industry.

Strategic Priority 4: Coastal Tourism (SDG-8, SDG-9)

Achieving developed tourism sector developmental activities within the country's coastal areas to promote coastal tourism is the need of the hour. Moreover, it may further increase prospects of generating national revenue and chances to attract FDI. Therefore, the following goals for the five-year plan may be focused on accomplishing set targets.

- a) **Short Term Goals**
 - Identifying and promoting distinctive features of coastal areas to attract tourists from within the country.
 - Designating and upgrading key areas/ spots at the coastal belt to jumpstart domestic coastal tourism.
- b) **Mid-term Goals**
 - Developing the recreation industry through water sports, fishing, yachting, island visits, etc.
 - Development of suitable accommodation and related facilities in coastal areas with reliable brand franchises through public-private partnerships.
- c) **Long Term Goals**
 - Establishment of business centres to host international exhibitions.
 - Development of cruise tourism to attract local as well as foreign tourists.

Strategic Priority 5: Non-living Resources (SDG-9, SDG-17)

Lastly, another strategic priority is developing the maritime sector seabed and subsoil resource extraction and utilisation. This priority may add support for achieving other strategic priorities commensurate with SDGs. For example, goals for the upcoming five-year plan may be.

- a) **Short Term Goals**
 - Developing technical expertise through the foreign collaboration for exploiting non-living resources.
 - Developing inter-ministerial cooperation for effective utilisation and management of non-living resources.
- b) **Mid-term Goal**
 - Acquisition of modern vessels for survey/ mapping on the pattern of PNS BEHR MASAH for NIO.
- c) **Long Term Goals**
 - Extraction of hydrocarbons and minerals (seafloor massive sulphides (SMS), polymetallic nodules to reap long-term economic benefits.

- Developing avenues for bilateral partnerships with technologically advanced countries in harnessing offshore resources.

Recommendations

To fully exploit our maritime potential, some recommendations are proposed. These proposals are directly linked with the blue economy and SDGs postulates.

a) **For Sustainable Commercial Growth, Infrastructure**

- An independent blue economy cell under the supervision of the Prime Minister's office should be formed comprising maritime experts, ministers and industry leaders to ensure proper coordination of blue economy activities among all government and private sector maritime stakeholders.
- Pakistan Bureau of Statistics may formally recognise GMP as a statistical tool to predict and calculate National products.
- Capacity building of MoMA by hiring or deputing subject matter experts and naval officers in the maritime domain for technical and professional assistance.

b) **For Improved Livelihood, Jobs and Well-Being**

- Development of human resources and skills for local fishermen and workers in the shipping industry through:
- Establishment of vocational training institutes in the coastal towns/ cities such as Gwadar, Pasni, Ormara, Shah Bandar etc., to impart contemporary fishing skills.
- Establishment of Maritime Technology Institutes in the coastal cities of Gwadar, Pasni and Gadani to develop skills in:

c) **For Protecting, Preserving Oceanic Ecosystem**

- In line with the Food and Agriculture Organization Code of Conduct for Responsible Fisheries 1995, the capability enhancement of NIO may be undertaken to monitor and assess the state of the stocks in our EEZ and Continental Shelf. Provincial Fishery Departments can be taken on board for this.
- Pakistan being a signatory of the Convention on Biological Diversity 1992, new sites such as Churna Island, Miani Hor, Gwadar Bay and Indus Swatch be identified and to be declared as 'Marine Protected Areas'.

Conclusion

The discussion made to propose Blue Vision 2035 is a comprehensive plan for attracting FDI in Pakistan. Gwadar Port, the proposed shipyard and non-living resources are areas with the highest potential. Currently, the Shipbreaking sector contributes 100 million USD, living resources are worth 400 million USD, and coastal tourism contributes 50,000 USD to the national GDP.⁴⁸ Suppose the aforementioned strategic priorities are pursued with consistent and comprehensive policies. In that case, they can assist in achieving critical targets in real terms collectively, and all these sectors have the potential to contribute to the tune of 25 billion USD to the national GDP.⁴⁹ The blue economy is a relatively nascent concept in Pakistan; however, it is rapidly gaining support and consideration at the global level. If the previous century belonged to oil-based economies, the present century could rightly be regarded as the one hinging upon sustainable use of marine resources. Therefore, the blue economy can play a pivotal role in bolstering the national economy with a renewed focus on revitalising the shipbuilding, repair and shipbreaking industry along with structural reforms and associated investment in exploiting marine resources.

Endnotes

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