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Blue Economy of Pakistan: Challenges and Prospects

Abstract

The Blue or maritime economy promotes sustainable economic growth and development. In Pakistan, governments have not paid adequate attention in the growth of ocean economy. Under the flagship project of CPEC, the Sino-Pak blue partnership is expected to promote the growth of maritime economy in Pakistan. This paper explores opportunities attached with blue economy and highlights the barriers which could impede the growth of this sector in Pakistan. A 1050 km long coastline and the EEZ with 290000 sq. km of sea zone promise Pakistan with invaluable untapped and unexplored hydrocarbon reserves, minerals, fish stocks and other marine resources. Pakistan's maritime sector has huge potential of growth but needs favorable policies and substantial investment to materialize the dream of sustainable growth into reality. The geo-strategic location provides Pakistan a pivotal position in the changing dynamics of the India Ocean and if this potential is utilized to its maximum, Pakistan can convert its vast sea zone into an epicenter of blue economy in the region. The paper concludes with the argument that future of Pakistan is attached with the development of blue economy. An all-encompassing strategy on maritime sector by government can pave the road to prosperity in Pakistan.

Keywords: Blue Economy, Opportunities, Challenges, Maritime Sector, Prosperity, Ocean

Introduction

The 21st century is the century of Blue Economy and Ocean civilization. Economic globalization is pushing the land economy to the ocean industry. Blue Economy (also known as, “blue growth”) is a term widely used in economics and business studies. The main objective of the blue economy is to control the utilization, maintenance, development, sustainability and protection of scarce blue resources (known as marine or coastal resources) of the state.¹ The seas, oceans, rivers and lakes etc. are known as blue resources. The very concept of the blue economy revolves around the major blue resources that can be helpful in elevating the economic growth of any state. These blue resources can further help to deal with major economic problems or challenges related to sovereignty, security, development, access to food and energy, management of natural resources etc. The maritime spaces, coastlines and the blue resources play an essential role in national

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economy, industries, environment, social environment and cultural identity. These are also hub for global trade and commerce.²

Sea resources play a major role in the economic progress and growth of any nation and the states holding the sea shores have the ultimate edge over the states which do not possess sea or any coastal lines. Each maritime state acknowledges the importance of its maritime assets and utilizes the resources up to its maximum level. Pakistan, regardless of having straight way in to the sea, has not been able to use the sea and its resources to its full gain mainly due to lack of maritime awareness.³

Economic experts believe that if the blue resources are properly utilized then this sector can create more than one million jobs in Pakistan. Maritime segment of Pakistan is one of the key factors of its national economic and military power, as 95 % of its trade is happening through the sea⁴. The open sea provides the opportunity for free unimpeded trade and access to the countries around the world. It is high time for Pakistan to take inclusive and concrete steps to create maritime awareness in the nation. Sooner or later, it has to turn towards sea to extract its riches to meet future demands. Pakistan, being a developing state must accord higher priority to maritime sector to gain adequate economic benefits. Maritime power not only includes maritime defense but also ports and harbors, merchant ships and its related infrastructure. China Pakistan Economic Corridor is the project which shows that the stakeholders are recognizing the worth and significance of its maritime space and using it as a potential resource.⁵The basic rationale behind CPEC is to promote regional integration and the economic prosperity of Pakistan and the Chinese dominant role in the waters as well.⁶

However, though CPEC is designed to give the maximum economic benefits but the project is facing numerous security hurdles. Instability in Balochistan though the result of foreign involvement is also the result of large scale poverty and unemployment in the province. Banned outfits such as BLA, BLF etc supported by India are involved in terrorist activities across the country. The success of CPEC is also depending on regional stability in general and good law and order situation in Balochistan in specific.⁷For the successful execution of the economic corridor, the government should work for the socio-economic uplift of the Balochistan. Prosperity will ultimately eradicate the roots of terrorism in the province.⁸ The non-conventional challenges involve the marine pollution, increased piracy threats, human trafficking and a high chance of increased smuggling.⁹

The blue economy deals with many economic activities using the blue resources. The major economic activities related to the blue economy are listed below:

1. Renewable Energy
2. Fisheries
3. Maritime Transport
4. Maritime Infrastructure
5. Tourism
6. Food and Energy
7. Climate Change
8. Waste Management
9. Mineral Resources

10. Aqua Culture (Fish Farms)
11. Coastal Frontier Protection
12. Discovering New Marine Resources¹⁰

However, the blue economy is roughly divided into two broader industrial sectors which are based on:

1. **Ocean industry**
2. **Ocean related industry**

Ocean Industry:

Ocean industry represents the core of ocean economy. Ocean industries indicate industries which are part of production or supply of services for developing, utilizing or protecting the ocean. It also includes the major marine industries and some of them are given following:

1. Oil and gas industry
2. Salt manufacturing industry
3. Chemical industry
4. Electric power industry
5. Ship building
6. Marine Engineering
7. Communication and transport
8. Sea water utilization
9. Scientific research
10. Marine Biomedicine¹¹

Ocean Related Industry:

Ocean related industry refers to the enterprises that link the major marine industries. It produces the inputs for the Ocean Industry or use outputs from the production process. It uses the sea water to irrigate the specific plants cultivated on the wetlands. These industries work as customers and suppliers of the ocean industries. They give input and output in the process of production. Input and output models are also applied to quantify the ocean related industries.¹² The sub-category of this economy is also called coastal economy.

Coastal Economy:

Coastal Economy is another subfield of the blue economy. It represents total employment, wages and output in each parts of the coastal economy. Following table shows common blue economic industries in different coastal states in the world. The following table shows that some developed coastal states have worked in detail on the suitable subfield of blue economies as per their conditions and are earning billions of dollars revenue annually

China	USA	Canada	UK	France	Spain	Ireland	Australia	Korea
Ocean mining	Mineral offshore		Aggregates	Marine Aggregates	Nonliving resource			Marine mining
Marine Salt								
Marine Biomedicines						Marine Biomedicine products		Marine bio
Seawater utilization								
Marine Electric power			Marine new able energy	Electricity generation		Marine renewable energy		Ocean renewable energy

Apart from this, the estimated worldwide business worth of blue economy is around \$24trillion per year.¹³ The earth is a blue planet because around 71% of its surface is covered with water. Approximately 80% of world's total trade is carried by sea/oceans.¹⁴ Moreover, blue resources can provide large number of jobs and employment opportunities. Both government and private sectors can play a crucial role for the growth and sustainability of national economy.

The developing countries might seem indifferent of the importance of blue economy or with the justified use of blue resources, but the developed countries are truly aware of the potential and importance of blue economy.¹⁵ In order to sustain and maintain their supremacy, all developed countries in one way or have taken the advantages of the water resources, they are blessed with.

The blue resources are termed great economic frontiers. But blue economy, along with that much potential and opportunities, face some challenges as well. Some of the problems faced by the government or private sectors are listed below:

1. Poor Management of Waste Disposal
2. Water Pollutions
3. Exploiting Water Species
4. Uncertain Change in Climate
5. Rising Temperature
6. Affected Tourism
7. Insecurity
8. Exploitation of Water Resources
9. Supplying Food to the Growing Population
10. Unsustainability or Uncertainty
11. Habitat Destruction
12. Overfishing

To eliminate or reduce these problems, both the government or private sectors, whosoever are involved should keep a balance between maintaining cleanliness and health of blue resources and the blue growth. As there are other living-beings in the water, they should keep note of them too. A proper planning and management should be adopted in this regard to take advantage of the resources without harming or destroying anything or anybody.

In this modern era, many countries are now contributing into blue economy and this leads the world to a step closer towards global harmony and prosperity. Many countries are coming up with new, innovative ideas, new projects involving international trade and business and some future plans to promote them further.¹⁶ In the entertainment sector, some countries are developing under-water infrastructures, like restaurants, hotels, sea-parks etc. and at the same time, water sports are being promoted. These initiatives are promoting tourism as well, which is directly putting a positive effect on the economies of many countries. All of this is encouraging a safe and healthy socio-economic environment, globally, where people from different nations get to interact or communicate with each other.¹⁷

The Blue Economy of Pakistan:

Pakistan is blessed with precious and valuable natural resources. Where Pakistan is blessed with World's 2nd Highest Peak, it is also blessed with the rivers, lakes and ocean and some other resources that any country could barely have, all together. Pakistan is bestowed by nature with huge coastline, natural harbors, blue resources, uninterrupted sea trade and very skilled manpower. etc. Pakistan is having a prudent advantage as it handles and facilitates the inland transit trade for Afghanistan, Central Asian and other countries.¹⁸ Pakistan is passing through in the first phase of blue economic development.

As per the close estimations, the total worth of world's blue or ocean economy is \$24 trillion dollars whereas humanity is getting benefit of just \$5-600 billion. In the South Asia, countries like India and Bangladesh are earning billions of dollars annually from the blue economy whereas Pakistan's annual revenue from the blue economy is just \$450 million. The actual potential of Pakistan's blue economy is more than \$100 billion.¹⁹

The coastline of Pakistan is approximately 1,050 km long along the Makran coast. Pakistan falls at 74th rank out of 142 coastal countries for having the longest coastline. The coast or area ratio of Pakistan is 1:36. Pakistan has extended coastline, marine resources, harbors, sea trade and maritime professionals for the development of maritime sector. The maritime sector of Pakistan is considered the jugular vein of the economy because almost 95% of its trade and 100% of minerals and resources are being imported through the sea route.

Pakistan has got an extended Exclusive Economic Zone (EEZ) and Continental Shelf. Exclusive Economic Zone (EEZ) is known to be a sea zone appointed by the UNCLOS. Because of the EEZ, countries own special right and sovereignty over their blue resources.²⁰ The case of extension of the EEZ of Pakistan was at first, presented before the UN in 2009. The EEZ of Pakistan is extended by 278 Km. Pakistan Navy is playing a vital role in the exploration of marine resources.

Pakistan is also blessed of having 160,000 hectares of mangrove forests. Pakistan is ranked at 24th rank worldwide according to the area of the mangrove forests.

Blue economic model in Pakistan is feasible as it is growing and developing after having much awareness of the importance and prospects of maritime sector. But there are some challenges before the blue economy of Pakistan to meet with.²¹

Realizing the potentials of the Blue, Pakistan has changed its Ministry of Ports and Shipping to Ministry of Maritime Affairs recently.

CPEC and Blue Economy

Multi-billion dollars project of CPEC is being considered an important mile stone in the blue growth of Pakistan. The importance of the maritime sector has been multiplied in the sense that all economic activities under the CPEC are going to happen under the designated routes from Gwadar Port to Chinese Kashghar. Both Pakistan and China are very serious about the maritime security of Pakistan. Pakistan government has taken very important steps to secure the trade routes under the CPEC framework to ensure the smooth flow of trade from the Arabian sea to kashghar.²² The CPEC is considered the jugular vein of Chinese trillion of dollars project of BRI. These projects if successfully materialized are destined to change the destiny of all regions from where they are supposed to pass. Political experts believe that new world order under China's leadership is imminent. The existing hegemon of the world US is not willing to see this happen. While sensing this all, the US has opposed China's BRI in general and the CPEC in specific. It is using India to sabotage this project.²³ The US has introduced the Indo-Pacific policy to contain China. If the CPEC gets complete in the fixed time frame, and Gwadar and its associated infrastructure is built, both Pakistan and China would be able to control every activities happening in the Indian ocean. Hence, to secure the sea lanes across the Indian Ocean, the Pakistan Navy has to acquire more patrol ships and fast interceptor crafts at any cost.²⁴

Piracy and Armed Robberies is another challenge against to the Blue Pakistan. The threats of piracy and armed robberies directly affect the flow of sea trade and naval security. Pakistan in this regard took the lead role in securing the blue environment. Pakistan Navy has met all the challenges regarding flow of sea trade, robberies, trafficking, overfishing and security etc. very efficiently.²⁵

Maritime security is a very important matter for the blue economy. The growth of blue economy depends upon the safe and sound environment to work within. Pakistan Navy in this regard seems very alert and promising. Pakistan Navy has maintained a secure environment for the maritime industry. The need is to make more investment friendly law and policies. The maritime security also ensures the safety of the state with respect to its frontier. In this regard, Pakistan Navy has been a hard nut to crack against the enemies of state.²⁶

In the blue economic sector of Pakistan, there have been some territorial disputes with the neighboring state; India. These sorts of disputes could hamper the growth of blue economy of Pakistan.

Sir Creek Dispute:

An important problem ahead of Pakistan in the maritime sector is the Sir Creek Dispute. Sir Creek is a water strip or tidal border that separates Sindh (Pakistan) from Gujarat (India) in the area known as, “Rann of Kutch” that is 90 miles long. It has been a long-disputed matter between Pakistan and India.

Fishing is another dispute between Pakistan and India. Fishermen from the both countries, in order to catch good fish, get involved in each other's territory and unintentionally cross the tidal borders of each other's territory. As a result, these Fishermen get arrested by the respective countries. The poor fishermen are then kept in prison for years, just for a mistake that is unintentionally done. Fishermen of both countries are arrested till yet. It is so because both countries claim the Sir Creek border line, but territories are not specified since it is a dispute till yet.

CPEC – China Pakistan Economic Corridor is a major project of Pakistan and China. Both countries are collaborating for infrastructural projects that would generate huge amount of revenues for both of them. As it is rightly said, this is a game changing project which will uplift the economy of Pakistan. It has considerably helped Pakistan to eliminate the long-standing issue of energy crises.

Where the CPEC is contributing so much in the improvement of Pakistan's economy, there are some enemies that are against this project. Regional and some global powers are not willing to see this project being materialized. There is no logic behind this, whereas it has been made controversial when it is not. They are invited by Pakistan to join it but they coldly refused and are continuously opposing this. Balochistan is the main center for this project. India don't want this area to be peaceful enough. India is opposing it and adopting heinous tactics that would not let Balochistan, free of terrorism and insurgencies. The US is opposing CPEC because of its animosity with China. It is using India in this regard. They don't want CPEC to be a success.²⁷

There are some sectors in blue economy that needs improvement and supervision. These sectors are discussed below:

- **Shipping:**

Pakistan owns Pakistan National Shipping Corporation that was established in 1963. Shipping Industry has a great past in Pakistan. As in early 70's Pakistan's shipping industry was at peak. Around 10 shipping companies were taken over by Pakistan Government back in 70's. The PNSC is growing with the passage of time. There was a time when PNSC had a capacity of having more than 50 ships which with the passage of time reduced to one dozen ships. Thanks to the recent government policies, the sector is getting again attention and investment from both the private and public sectors. The PNSC, with the passage of time improved and now PNSC has more capacity to carry containers and vessels etc. Now it is earning profit even more than 2,500 million Rupees, earlier it was even lesser than 1,500 Million Rupees. Same is the case with cargo lifting with approximate capacity of 10,000 tones. Beside this, the shipping industry is growing, it still needs a proper management and attention so that it may work well. There are great opportunities for the investors as well. Investors could invest in the shipping industry. On the

other hand, Pakistan's government is also striving to bring private sectors into this as well.

In total national exports and imports cargo, the share of National Shipping Corporation is just 7 percent whereas rest of all is conducted by foreign companies. If the capacity of Shipping Corporation in Pakistan is increased, it can help Pakistan to save more than \$1.5 billion dollars annually. However, it is good to know that around 99 percent of oil imports are conducted by this national asset.

Shipping Industry has much more to do besides, shipping. It needs the repairing of ships, professionals that are highly skilled, investments and planning for its improvement. In addition, shipping industry in the whole world is responsible for 92% trade through seas and oceans. Pakistan could also align to the latest trends through which shipping industry can get stable, then it will play a great role in generating good GDP and GNP. Hence, with the stability and growth of blue economy, the economy of Pakistan would also grow.²⁸

- **Ports and Infrastructure of Blue Economy:**

Nature has blessed Pakistan with enormous blessings, it is like a well-furnished, well-managed, and beautiful home, that its inhabitants have been provided with everything. It is blessed with natural dams and deep-sea ports. There are ports and other resources that other countries are interested in.

Karachi Port is known to be the biggest and busiest port in Pakistan. It handles about 60% of the nation's cargo. More than 1700 cargo ships visit Karachi port annually. There is another project with this that is Pakistan's Deep-Water Containers Port. **Port Qasim** is the second biggest and busiest port in Pakistan. It approximately carries 40% of the national cargo. It is located in Phitti Creek. The infrastructure of Port Qasim is well organized, it has linkage with the six tracks of railways and highway is around 15 Km away from this port. Airport is also, around 22 km away from this sea port. The only private petroleum terminal (FOTCO) of Pakistan is located here in Port Qasim. More than 1500 ships visit this port annually. **Gwadar Port** is another developing port; it is located ahead of Persian Gulf in the Arabian Sea. It is known to be a best deep sea water port. This port has a notable connectivity with the roads and railways in Balochistan.²⁹

- **Ship Maintenance:**

Ship maintenance is another opportunity that has importance in infrastructural sectors. As ships are all in all at the ports, so they need to be well organized in this regard. Ships get broken and damaged. So they need well maintenance. In this regard, the ships are recycled and broken where needed. This Industry of Ship Making and Breaking is also very important in the blue economy. Pakistan is also one of the top countries that are enjoying profit through this industry. According to 2011 stats, Pakistan has demolished around 1485 ships.

The Ship Breaking place is located at Gadani, Balochistan coast. It also ensures the employment to an extent. Pakistan could generate huge revenue if this industry is supported by the government. As it is the world's largest place that breaks that much ships. Pakistan should pay attention to this and work for its improvement and sustenance and it will prove to be the goose that lays golden eggs.³⁰

- **Sea Food Industry:**

It is another big industry that could contribute in national GDP. Moreover, it also provides food and other stuff essential for living. Pakistan's seafood industry has worth of more than \$1 Billion. In the products of fish industry, Pakistan holds 28th rank in the world. Pakistan's sea food industry contributes around 1% in GDP, and it can employ more than 10,000 people. Around 600,000 ton, total fish is caught. Apart from the nation's share from this, this fish could be exported as well. Pakistan has earned a lot profit by exporting fishes. But due to lack of management and attention around 200 rare species of fishes are smuggled on daily basis. Despite this, there are fish farms in Balochistan and Sindh. As it is discussed before that Pakistan has abundant resources at some places but lack of management and attention lead it to destruction.

Currently the fish and seafood exports of Pakistan are limited to \$450 million only, but it could be enhanced to \$2-2.5 billion if it has a proper deep-sea fishing policy. Owing to lack of facilities, bad transportation system, low export quality, Pakistan's fish is purchased on very low price of \$2.27-2.5 per kg whereas in other regional countries per kg price of fish is \$ 7 per.³¹

- **Offshore Resources:**

Apart from these resources, Pakistan also enjoys some offshore resources. There are two offshore basis in Pakistan, namely; Makran and Indus. The Indus basis is known to be the second largest in the world. Furthermore, increase in investments can stabilize this. These resources are rich from minerals and oils, but they are untapped yet. Pakistan's enemies are keeping eye on these resources. These resources can provide stuff for food and medicines etc.³²

- **Tourism:**

Another plus point in the blue economy of Pakistan is its tourism via sea and ocean. Tourism generates around 5% of national GDP whereas coastal tourism in Pakistan is a lot to discover. Recently, a desert beach "Kund Malir" was discovered and immediately it caught attention of the world for its captivating beauty. The coastal tourism forced the foreign tourists to come and explore Pakistan. In this regard Eva Zu Beck and many other foreign travel vloggers came, explored and presented a very positive side of Pakistan. This indirectly raised the tourism business of Pakistan. The world is now accepting Pakistan a safe place. There are more than 10 beach spots in Pakistan right now that have been discovered.

The tourists around the world are being attracted towards beautiful places especially the sea coasts with vast biodiversity and attractive beaches. Pakistan's beaches are full of beautiful land features. If the spots are developed well by the government, it can provide the revenue of more than \$4 billion to the national economy. Pakistan has beautiful beaches along its coastline.³³

There are terms and policies that make a framework set by Government and Private Organizations for the operations in blue economy. As some concerns, potentials, prospects, weaknesses and strengths are discussed there are some

frameworks, on which Pakistan's blue economy is standing. They are described below:

- **Growing Environment:**

It is a known fact now that the climate of world is changing rapidly, so it will notably affect the blue resources as well. The climate of earth is changing rapidly, in Result Sea or ocean acidification occurs, hence there could be severe environmental changes just because of pollution caused by Humans, majorly. It could destroy fishery sector and the minerals that are undiscovered yet are also in danger.

In order to sustain, the government should raise awareness among people regarding cleanliness and the outcomes of pollution. It is a major prospect that is in the hands of the nation that how they protect their resources from getting exploited. As the environment is growing everyone should pay heed to its negative aspects that how can it be stopped.³⁴

- **International Regulatory Framework:**

The International Regulatory Framework refers to the global trends that shows the population increase due to blue economic sectors and their development. Whenever, the blue economic areas of Pakistan will develop, there will be a rise in population of Pakistan. Considering this, the government should take initiatives in order to control population. Hence, they could use the scarce resources in best possible and effective manner. There have been several treaties and agreements in this regard. Some of them are listed below:

1. **International Convention on Standards of Training, Certification and Watch Keeping for Sea Farers (STCW), Maritime Labor Convention (MLC) & SOLAS:** It is responsible for the training of people who are directly or indirectly connected with the blue economy and blue resources for earning. This organization pays heed on their training and their rights. In essence, they also work for the life safety at sea.³⁵
2. **Basel Convention:** It is basically responsible for the security of blue resources of any state from the venomous and hazardous waste. It basically ensures that the waste should not destroy the blue resources of another country or could not cross tidal border.
3. **MARPOL:** This Organization ensures the clean environment in sea or ocean by preventing the pollution and waste caused by the ships and boats. When ships have operations regarding transportation or security purposes or any other activity, they are likely to cause pollution that is obvious, it can affect the blue resources. In this case, MARPOL, ensures the safe and clean maritime environment.
4. **Biodiversity Convention 1992:** As there is much more things to do in the maritime and blue economic sectors. There are several rules and regulations, frameworks and laws for the rights of states, nations, individuals, the sea or ocean.³⁶

Hence, they were some major frameworks to manage and sustain blue economy and blue resources. Pakistan has not as such major regulations, thus, they are more likely to follow these international regulatory frameworks. But it will be better if there will be policies and terms made in Pakistan in this regard.

Conclusion:

Though Pakistan has started working towards the blue economy but the dream of sustainable growth and development could only be achieved when the political elite would demonstrate strong will and seriousness towards this sector. Pakistan needs to invest intellectual and material resources. Issues such as poor infrastructures, red tapism within the system, bureaucratic bottle necks, regional instability especially bad law and order situation in Balochistan, lack of coordination and awareness between departments and ministries need to be rectified. All-encompassing policies should be introduced and concerted efforts, small or large, should be made in line around the concept of blue economy.

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