

PAKISTAN'S BLUE ECONOMY AMID INCREASING MILITARISATION IN THE INDIAN OCEAN*

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Abstract

This study focuses on the potential of 'blue economy' for Pakistan given its unique geography and considerable coastline with resources like fish, islands, beaches, ports, etc. Pakistan has yet to fully tap the economic potential of its maritime resources. Among various causes of the under-utilisation of the land and maritime connectivity for the country's economic development are the regional fault-lines, i.e., Kashmir and Afghanistan, and power competition in the Indian Ocean, which impacts developing countries like Pakistan. The bilateral trade between India and Pakistan is the lowest among all the South Asian countries whereas both countries spend huge amounts on defence procurement from extra-regional countries. The strategic triangle between India, China, and Pakistan and growing alliances in the Indian Ocean Region (IOR) also have a significant impact on the prospects of the 'blue economy' for Pakistan. Due to its security-centric foreign policy, Islamabad missed many economic opportunities. If developed sustainably, the country's blue industry has the potential to strengthen and stabilise the economy by creating an enormous amount of trade and employment opportunities not only for Pakistan but also for neighbours and landlocked Central Asia and Afghanistan.

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Introduction

Whosoever controls the Indian Ocean, dominates Asia. In the 21st century, the destiny of the world will be decided upon its waters.¹

Alfred Thayer Mahan

Ocean economy has a substantial part in the economic development of any country. More than 71 per cent of the earth's surface is covered with waters in the form of rivers, lakes, seas, oceans, etc. There are five key oceans in the world, namely, Pacific, Atlantic, Indian, Southern, and the Arctic. Most of the trade across the globe is carried out through waters, i.e., oceans and seas. So, the landlocked countries of the world have a clear disadvantage in this regard. Pakistan being a littoral state to probably the most important ocean has enormous economic potential. Nevertheless, the foreign policy of Islamabad is always driven by national security or the geostrategic importance for the international powers, which neglects the country's geo-economic potential. The Indian Ocean with an area of 70,560,000 sq. km is the third-largest ocean of the world, among the littoral states of which are the nuclear-armed arch-rivals India and Pakistan.² Due to their important geostrategic features, they manage to attract the attention of international players. For instance, India being a neighbour to the fastest growing economies of Southeast Asia and vital sea routes like the Strait of Malacca, while Pakistan being neighbour to the largest reserves of oil, gas, and minerals, and both being neighbours to the challenger to the US hegemony, China. Due to their mutual fault-lines, the two states are unable to explore the benefits of the ocean.

The Indian Ocean has always been a transnational zone of cross-cultural interaction between merchant communities and armies of different civilisations. In ancient times, it flourished as a region of trade. In the medieval era, the region was embroiled in the imperial

rivalry. Later on, the cold war accelerated the arms race. In the aftermath of the cold war, competition for economic dominance began in the Indian Ocean Region (IOR).³ Around 90 per cent of the global trade is carried out through maritime transportation and a sizeable share of it passes through the Indian Ocean.⁴ The mounting presence of regional and extra-regional powers in the IOR and particularly the growing cooperation between New Delhi and the Western and West-Asian States has increased insecurity in Islamabad. Pakistan is a littoral state and a geo-strategically vital player in the IOR owing to its location at the gateway of the Strait of Hormuz through which some \$200 billion worth of oil transits each year.⁵ Having a blue policy is vital for the country's geo-strategic ambitions. Oceans have been of significant value for people and states for centuries. They are the main sources of food, trade, energy, warfare, entertainment, etc. According to a report issued by the World Wildlife Fund (WWF) in 2015, about 10-12 per cent of the people globally depend on the oceans for their livelihoods, whereas the economic benefit is \$2.5 trillion per year.⁶

Littoral States of the region try to protect their economic and security interests either through cooperation or competition. The traditional rivalries of regional and extra-regional powers, i.e., India-Pakistan, China India, US-China spread to the oceans as well. Following these rivalries, the major stakeholders try to strengthen their grounds through military alliances, economic ventures, logistic advancement, etc. The paper aims to discuss growing challenges for Pakistan in the IOR due to changes in the regional geopolitical landscape, i.e., the increasing influence of India in regional as well as global politics, China-India tensions, US-China competition, and expansion of Indo-Pak rivalry in the IOR. The paper argues that the prospects of Pakistan's blue economy are eroded by the regional political climate despite having an enormous amount of ocean resources.

This paper explains the significance of economic security for Pakistan and addresses essential questions about the significance of blue economy for Pakistan, such as the following:

- How can Islamabad use its blue industry to attain economic security?
- What are the domestic, regional, or international factors that create challenges for Pakistan?
- What are the areas in which Pakistan could develop cooperation with different countries of the world?

The paper gives a detailed insight into the enormous resources and capabilities of the country and also explains the importance of regional connectivity to benefit not only from its resources but the resources of neighbours like Central Asia.

Blue Economy

The term 'blue economy' is used to describe sustainable usage of water/ocean resources by the countries to get the economic benefit, maintain marine biodiversity, and contain climate change.⁷ The European Union's executive branch also described blue economy as "all economic activities related to oceans, seas, and coasts. Blue economy covers a wide range of interlinked established and emerging sectors."⁸ Countries, transnational organisations, regional organisations, and multinational corporations around the world are turning towards the seas as a major source of their economic activities. It is very difficult for developing countries like Pakistan to secure their economic interests in such a competitive environment while maintaining a sustainable ecosystem especially because the desire to boost economic growth results in over-reliance upon natural resources on the one hand and the absence of capabilities to protect the ecosystem that creates the risk of extinction of resources on the other.

The significance of the blue economy has been highlighted at the international level on various occasions. In 2012, at the Rio+20 Conference, countries pledged to "protect and restore the health and

productivity and resilience of oceans and maritime ecosystems, to maintain their biodiversity, enabling their conservation and sustainable use for present and future generations.”⁹ The 2014 UN Conference on Trade and Development also focused on the sustainable usage and management of marine biodiversity and ecosystem. The World Bank and the European Commission in 2017 and 2018, respectively, emphasised sustainable development of blue resources.¹⁰

On the one hand, there is an increasing dependence on the ocean as a major food and energy source and for economic activity. On the other hand, there are threats such as territorial disputes in oceans to control the resources as we see in the South China Sea and the Mediterranean Sea. There is also a threat of extinction of various species due to global warming, overfishing, and pollution because of the solid waste dumped into the oceans and oil spills—such as Torrey Canyon and Exxon Valdez. Conflict of economic and security interests of the states sharing the same oceans and maritime security threats, i.e., sea piracy and terrorism have also made ocean resources vulnerable as stated by the Senior Vice President of WWF, Brad Ack, “The oceans are our ‘natural capital’, a global savings account from which we keep making only withdrawals. To continue this pattern would lead one to bankruptcy.”¹¹ The increased dependence of states and non-state actors on oceans for their economic activities gave rise to a new economic concept called the blue economy. The blue economy could play a significant role in the development of littoral states like Pakistan but due to lack of infrastructure, technology, disputes in the region, and influence of the international community, countries cannot use their resources.

Regional Dynamics

Geographical location is a huge factor in determining a country’s potential and impact on international affairs. Pakistan’s neighbourhood—having the world’s fastest-growing economies,

nuclear powers, huge populations, largest reserves of natural resources, and a long coastal line with deep sea ports—makes it one of its kind in the international system. Pakistan has been using its geostrategic leverage to defend its national interest and to attain its socio-economic and security goals. For example, the whole world applauds the role of Islamabad during the Afghan war, the war against terrorism, and the most recent Afghan peace process and evacuation of American forces from Afghanistan.

“The natural urge of the facts of history and geography should broaden itself to include exploring the concept of Indian Ocean Rim for socio-economic cooperation and other peaceful endeavours,” said Nelson Mandela on his visit to India in 1995.¹² The Indian Ocean plays the most important role in the global political economy, both because of the major trade routes it possesses and due to its natural resources, i.e., fish, plants, and oil and gas. Around 22 countries from three continents (Australia, Asia, and Africa) share their coastal region with the Indian Ocean, which plays a key role in their national economies. The countries have established an intergovernmental organisation called the Indian Ocean Rim Association (IORA) in 1996 following a visit of Mandela to India in 1995, the purpose of which is to promote regional cooperation in various areas. In 2015, the IORA’s Indian Ocean Dialogue Forum in Perth, Australia, identified blue economy along with other maritime focus areas, e.g., maritime security, trade and investment facilitation, fisheries management, disaster risk reduction, tourism promotion and cultural exchanges, as well as emerging sectors such as maritime chemistry, ocean engineering, and ocean power biomedicine.¹³

The members of the organisation are Australia, Bangladesh, Comoros, India, Indonesia, Iran, Kenya, Madagascar, Malaysia, Mauritius, Mozambique, Oman, Seychelles, Singapore, Somalia, South Africa, Sri Lanka, Tanzania, Thailand, UAE, and Yemen.¹⁴ Pakistan—despite its significant geostrategic location on the Indian Ocean with a

coastal area of about 1,000 km and three deep seaports—is not a member of IORA. The country can not only benefit economically through the membership of IORA but can also enhance its technology and security in the region through cooperation with other countries.

In March and May 2017, all member states of IORA signed the Jakarta Concord and the Jakarta Declaration simultaneously in Indonesia, which emphasised cooperation to enhance the sustainable blue economy. The different areas of cooperation included sustainable use of marine resources, job creation, economic growth, poverty alleviation, trade and investment, R&D, technology and innovation, SMEs, skill and human resource development, fisheries management, disaster risk management, tourism and cultural exchanges, enhancing cooperation among stakeholders, strengthening IORA's institutions, and augmenting regional connectivity.¹⁵ Indian Ocean Naval Symposium (IONS), a regional naval institution led by the Indian Navy established in 2008 to provide a consultative mechanism on maritime security issues. All IOR states are members including Pakistan.¹⁶

The historical and social roots of India in Africa lie in the migration of Indians to eastern and southern Africa during the British Colonial rule, which resulted in the inclusion of Africa in New Delhi's policy. During the mid and late 20th century, India had social roots in Africa but with the beginning of the 21st century, Delhi began to develop economic relations through multilateral platforms like India-Africa Summit, which involves 15 African countries and India, Brazil, and South Africa (IBSA) forum.¹⁷ The economic interests of the countries of eastern and southern Africa combined with the military presence of countries like the US, France, Italy, Japan, and China in Djibouti at the Horn of Africa, creates competition and challenges for the economic prospects of countries like Pakistan in the region.¹⁸ On the other hand, Conflicts between Pakistan and India are actively backed by Beijing and Washington respectively and the 'New Great Game' in the IOR revolves around the Belt and Road Initiative of

Beijing. India being a rapidly growing regional power tries to counter the growing Chinese military and economic influence in the region.

Chinese Presence in the Indian Ocean

China included oceans in its policy in the 1980s to form a blue water navy to protect its own interests in the western Pacific Ocean. Later on, with the growth in China's military and economic strength, its influence spread to other parts of the world, one of which is the Indian Ocean.¹⁹ China's growing economy has expanded its trade relations all over the world of which 90 per cent takes place through seas. In the 18th Congress of the Communist Party of China (CPC), Beijing decided to grow as a maritime economy for which it adopted a three-pronged strategy. First, through expanding its reach via the One Belt One Road (OBOR) initiative. Second, through the naval modernisation program by equipping its naval force with the latest technology, i.e., building aircraft carriers to secure its economic and security interests in seas and shifting its policy of focus on one ocean (the Pacific Ocean) to focus on two oceans (the Pacific and Indian Oceans). Third, through greater access to the ports of the Indian Ocean and providing economic and military aid to Bangladesh, Sri Lanka, and Pakistan.²⁰ Chinese investment in the Gwadar port of Pakistan, Payra seaport of Bangladesh, and Hambantota port of Sri Lanka are viewed as a part of its 'string of pearls' strategy or the New Maritime Silk Route, which is a part of its greater OBOR project connecting Beijing to the rest of Asia, Africa, and Europe.²¹ New Delhi sees it as a threat to India's military and economic might in the IOR as China has recently expanded its military base in Doraleh in Djibouti.²²

The China Pakistan Economic Corridor (CPEC), which is a flagship project of the Belt and Road Initiative (BRI), has the potential to create enormous opportunities for social and economic development. China's investment in the development of Gwadar port enables Pakistan to boost its blue economy.²³ This corridor can connect China to the Middle East and Europe, India to resource-rich

Central Asia via Pakistan and China Central Asia to Southeast Asia, Western Europe and Australia through the Indian Ocean.

Competing India

Indian strategic thinking in the IOR is driven by the ideology that the one who gets sea power can control the world. Following this ideology, New Delhi's dream is to make the Indian Ocean 'India's Ocean'. This vision was expressed by former Indian Prime Minister Atal Bihari Vajpayee in the following words: "National security lies in the area from the Arabian Sea in the west to Malacca Strait in the east."²⁴ India is a rising player not only in the South Asian region but also in the international political arena and as it grows it poses greater challenges to Pakistan politically, militarily, and economically due to historical grievances. Delhi, under the leadership of Narendra Modi, wishes to play a leading role not only in the Indian Ocean but also in the regions that are connected by it, i.e., Southeast, Central, and West Asia.²⁵ According to a former Secretary in the Indian Ministry of External Affairs, "If India aspires to be a great power, then the only direction in which India's strategic influence can spread is across the seas. In every other direction there are formidable constraints." But in the modern world, those constraints are extended to the oceans as well.²⁶

India and Pakistan have always been bitter rivals. The two countries have fought several wars as well. Although the war of 1947 did not have a significant naval involvement, both countries gradually started developing their naval power. The obvious reason for Pakistan to do so was to ensure and secure its connectivity to East Pakistan. Delhi, however, realised the importance of the ocean for its security in the 1961 Indo-Portuguese War in which it relied on its naval capabilities to free Goa from the Portuguese. In the subsequent Indo-Pakistan wars, the navies of both countries played a substantial role, particularly in 1971 when East Pakistan seceded from Pakistan to become Bangladesh.²⁷ These events also added to the new dimension

in India's strategic thinking and Delhi included the ocean in its economic policies as well.

With the beginning of the 21st century and the increase in the economic growth of India, its ambitions grew global. With the rise of globalisation and complex interdependence, Delhi with its growing market emerged as a major global actor and tries to play its part both militarily and economically. Being a littoral state, New Delhi not only tries to take control of the affairs of the Indian Ocean but also desires to expand its reach to the resources and market of Afghanistan and Central Asia via Chabahar Port of Iran following its policy of isolating Pakistan. Modi became the first Indian leader to visit all Central Asian States in 2015. Among the Central Asian states, Uzbekistan enjoys special relations with Delhi as it has signed a civil nuclear agreement as well in 2019 under which the Central Asian State agreed to supply India with Uranium. Moreover, in December 2020, India, Iran, and Uzbekistan held a trilateral meeting on the use of Chabahar Port, in which Afghanistan was also invited as a major stakeholder.²⁸ New Delhi has begun to expand its deployment of warships and submarines in the quest of being able to counter Chinese and Pakistani navies in the high seas and its naval strength is of great significance for international powers.

Delhi's potential to buy defence apparatus made it a favourite market to exporters like France, Israel, and Russia. India has signed deals with France not only to buy Rafale planes and Panther choppers but to transfer 100 per cent assembly line for Panther choppers and 70 per cent of the assembly line for Rafale fighter planes, which will increase its combat potential.²⁹ In the third round of strategic dialogue held between French President's Diplomatic Adviser Emmanuel Bonne and Indian National Security Adviser Ajit Doval in the first week of January 2021, France asked India to participate in the EU's naval monitoring mission in the Persian Gulf.³⁰ In 2018, Delhi signed a deal worth \$5.4 billion with Moscow to buy the S-400 air defence missile

system from Russia despite the US threats to put sanctions on India. The delivery of the systems will be complete in five years.³¹ The US, however, has built very strong cooperation through trade and investment on one hand while on the other hand security cooperation through subsequent agreements. The agreements such as the General Security of Military Information Agreement (GOMIA) in 2002, Logistic Exchange Memorandum of Agreement (LEMOA) in 2016, and in 2018, Communications Compatibility and Security Agreement (COMCASA), for safeguarding information shared by the Pentagon with the Indian defence ministry³². Most recently in October 2020, the US-India signed the Basic Exchange and Cooperation Agreement (BECA), which enables both countries to share sensitive satellite data. These agreements focused on sharing critical information, encrypted defence technology and also to provide the Indian Military with the logistic support, supplies and services. Although these agreements were signed to counter China's power these also have serious security and economic implications for Pakistan, given the hostilities between Islamabad and New Delhi.³³

Challenges

Even though Pakistan has opportunities to expand its economic as well as political reach from its position of being a littoral state in the IOR. Simultaneously the country could face traditional and non-traditional challenges. The bellicosity of India due to geopolitical and boundary disputes, the competing global powers such as the US, Russia, France, the UK, and China to establish their position creates great power rivalry in the region and challenges to the regional developing economies like Pakistan, other factors like terrorism, sea piracy and smuggling also add to the problem.³⁴ An increase in international interference in the region creates greater demand for technical and operational expertise, but the regional political dynamics do not allow countries like Pakistan and India or Pakistan and Bangladesh to exchange such expertise.³⁵ The failure of regional

organisations like SAARC, IORA, and IONS to address regional issues because of the hegemonic behaviour of India also adds to the miseries of growing countries like Pakistan. To give an example, India invited all IONS member states but Pakistan in the session held at Kochi, India, on the 10th anniversary of the Symposium on 13-14 November 2018, which showed India's "proactive reductionism."³⁶

The enormous increase in India's naval spending over the past two decades also raised fear of Indian ambitions in the IOR. With the procurement of advanced weapon systems and technologies, Delhi is emerging as the largest military power among the littoral states of the Indian Ocean in general and in South Asia in particular. There are speculations in Pakistan that the sensitive aspirations of India in the region, supported by western powers to counter China-Pakistan cooperation could try to sabotage Pakistan's prospects of economic development.³⁷

The deep sea ecosystem not only creates economic opportunities for countries like Pakistan but the global and regional politico-environmental changes create certain challenges like cooperation, policymaking, resource management, the sustainability of the resources. UN General Assembly has also passed resolutions 59/25, 61/105 and 64/72 to regulate fisheries for fishing due to the vulnerability of marine habitat. The resolutions emphasise the following:

- Assessments of the impact of bottom fishing activities on marine habitat.
- Prevention of adverse impacts of fishing including the closing of certain fishing areas if necessary.
- Establishment and implementation of fishing protocols.

Taking measures according to the precautionary approach, ecosystems approach and international law.³⁸ Every move of Islamabad to form any kind of relationship with regional and international states creates concerns and speculations in the policy

circles of New Delhi. Despite having a crucial geostrategic location, the country lacked in having a firm foreign policy over decades. This is partly because of the poor economic and security conditions after the independence of India and Pakistan. Later on, the civil-military relations created deep impacts on foreign policy. The country needs to have a holistic policy that not only includes CPEC but strategic considerations of IOR, i.e., connectivity, trade and investment, and sustainable eco-friendly development of resources as well.

The recent developments due to massive Chinese investment in the region through CPEC to expand its reach to Asia, Africa, and Europe has increased the significance of Balochistan. Due to its geostrategic importance and economic potential, the province attracts the attention of global powers. Different countries have different interests in the region, which they try to fulfil through various means, e.g., the Soviet Union after its control over Afghanistan tried to sabotage peace in Balochistan by convincing Baloch to revolt against Pakistan assuring the insurgents to have autonomy over greater Balochistan. Moscow aimed to make it either part of Afghanistan or an independent Balochistan with Soviet influence, either way, it would get its way to the warm waters of the Indian Ocean. Although it had learnt its lesson in Afghanistan but its Indian Ocean policy would not die down.³⁹

Pakistan having full membership of the 'Shanghai Cooperation Organisation (SCO)', can be an effective trade outlet for the organisation's Eurasian Nations.⁴⁰ The states of Central Asia have huge reserves of natural resources but due to their landlocked status, they are dependent on neighbours like Russia and China to export their resources. The security situation in Afghanistan is the biggest hurdle in their way to the ports of Pakistan, Islamabad needs to increase connectivity to Central Asia to benefit from the resources.

The development of Chabahar and Gwadar ports by Iran and Pakistan, respectively at a mutual distance of 79 kilometres has not

only created a potential competition between Tehran and Islamabad but also between Beijing and New Delhi as both countries have huge investments in these ports. China invests in both countries for its economic gains, whereas India, being the arch-rival of Pakistan, invested in the development of Chabahar Port to expand its political and economic influence to Afghanistan and Central Asia via sea route through Iran as Pakistan was the biggest hurdle in the land route. Pak-Iran relations faced various ups and downs as Iran accuses Pakistan of supporting the Jundallah Organisation for insurgency in Iranian provinces of Sistan and Balochistan and vice versa. So, instability in Balochistan means a delay in the development of Gwadar Port, which serves India in two ways: first, creating hurdles in the Chinese way and, second, effecting Pakistan's economic growth.⁴¹

While India and Pakistan increase their arsenal and put their ammunition on display through Malabar- and Aman-like activities in their high waters, it is the economy that suffers. Countries like Pakistan must explore options other than military exercises to engage the global community.

The Country's Blue Industry

A carefully engineered Indian Ocean policy can be vital for Pakistan to upscale its economic network. The geostrategic status of being a littoral state in the IOR gives Pakistan leverage over various regional and international players, e.g., the Central Asian states are rich in natural resources but they do not have direct access to the sea routes to export their resources, Pakistan could provide that access. During the past decades, the Afghan war has been the biggest hurdle between Pakistan and Afghanistan. But Afghanistan can benefit while using its seaports. China is another example of the investment of billions of dollars in Pakistan because of the country's geographical location. The country's blue industry has enormous growth potential.

Seaports and Shipping

Karachi port, Port Qasim and Gwadar port are an important part of the maritime economy and Pakistan's ports are the talk of the town in the international community due to CPEC. Besides CPEC, the ports can be connected to the hinterland of Central Asia to increase regional connectivity so that they can become a new gateway for Central Asian cargo. Asian Development Bank is promoting regional cooperation and development in the region. It established the Central Asian Regional Economic Cooperation (CAREC) in 1997, other countries like China, Mongolia, Azerbaijan, and Georgia also became part of the program. Pakistan also joined the program in 2010.⁴²

The port of Karachi, one of South Asia's largest and busiest deep-water ports, handles about 70 per cent of the nation's cargo (25 million tons per annum). The port handles 1,600 shipments every year with its 33 berths which are very low as compared to the ports like Shanghai which handles 2,000 shipments per month with its 125 berths. The geographic location of the port places it in close proximity to major shipping routes such as the Strait of Hormuz. The administration of the port is carried out by the Karachi Port Trust (KPT).⁴³

Port Qasim, Pakistan's second busiest port, handles about 17 million tons of cargo per annum. This port handles more than 90 per cent of all external trade of Pakistan. The port covers a total area of 12,000 acres (49 km²) and encompass many industrial zones. Other than the Pakistan Steel Mills and K-Electric (formerly Bin Qasim Power Plant), around 80 per cent of Pakistan's automotive industry is located at this port. The port also provides direct waterfront access to the nearby Export Processing Zone of Landhi and Korangi Industrial Area. The port is managed by Port Qasim Authority which is a semi-autonomous government body.

Gwadar port has been constructed as the third and probably the most important port of Pakistan due to its significance in CPEC. It is

situated on the coast of Balochistan, at a distance of about 460 km from Karachi and 120 km from the Iranian border. Its strategic location at the gateway of the gulf and choke points of the Strait of Hormuz and Gulf of Oman add to its value, the port is envisaged to become a new regional hub of trade and commerce, serving incoming and outgoing commercial traffic of the Middle East, China, Central Asia and Gulf countries. Keeping in view this significance, the government has declared Gwadar as a duty-free port and Free Economic Zone.⁴⁴

Fisheries and Aquaculture

The UN's Food and Agriculture Organisation (FAO) reported aquaculture as the fastest growing food production sector with a growing share of 35 per cent around the globe, however, it is relatively new in Pakistan with a negligible share.⁴⁵ Pakistan possesses a market for fish and fish products at the international level. The country earns substantial amount of foreign exchange by exporting ocean resources like shrimp, fish, and their bi-products to various countries i.e., Europe, North America, Japan, etc. The majority of the export is from capture fisheries, whereas aquaculture farming is practised at a small scale, which contributes 1 per cent to the GDP.⁴⁶ Various organisations have intended to set up research projects covering both marine and inland fisheries as well as allied aquaculture. Emphasis on research surveys as well as research and development will boost the growth potential of the industry.

Coastal Tourism

Tourism is an important sector of the global economy and coastal tourism is a vital part of the blue economy. The contribution of the IORA region's tourism sector to the world economy in 2015 was \$670 billion, 8.5 per cent of the world's tourism industry. Apart from its job creation potential, coastal tourism helps strengthen the country's economy.⁴⁷ The tourism and recreation potential of the coastal areas of Pakistan is highly underestimated and the stunning beaches along the coasts of Karachi and Balochistan, such as Gaddani and Kund Malir are

limited to local tourists. However, if invested carefully and sustainably, there is enormous potential for recreation and nature-based tourism in the Indus Delta, and along the Balochistan coast i.e., Churna Island and Astola Island, Jiwani and Hingol areas, which could attract tourists from across the globe.⁴⁸ Well-developed coastal tourism will not only strengthen the country's economy but also boost Pakistan's soft image in the world.

Ocean Knowledge Clusters

Ocean/maritime clusters are geographic concentrations of similar or related maritime firms - such as shipping, seafood, marine technology, and/or port operations that share common markets, technologies, worker skill needs, and are often linked by buyer-supplier relationships and operate in close interactions with one another directly or through multiple networks. Jacob K. Clasen defines it as naturally-occurring collections of different types of maritime activities.⁴⁹ Larger companies use these networks to improve their efficiency and engage a networked economy. In some cases, these clusters have emerged as organisational entities that aim to enhance the competitiveness and collaboration among their maritime company participants, related institutions, and other stakeholders. In addition to providing a platform for the companies in maritime sectors that are related to each other, these clusters link all companies or organisations within a specific sector. Areas such as renewable ocean energy and seabed exploration of minerals also have a huge potential and are yet to be developed in the country. The country must explore ways to cooperate with neighbours and the stakeholders in the IOR to utilise the blue resources to their maximum through joint ventures, research and development, etc.

Blue Technology

Technology is an essential component of the Blue Industry, the development of the blue economy depends upon the modernity of the infrastructure. Technology not only reduces human effort but also

increases the quality and volume and better processing and packing of the product. With growing global issues like climate change, land and water pollution, extinction of species, rising sea levels due to the melting of arctic glaciers, it is important to upgrade or introduce new technology in Blue Industry to ensure sustainable development. Countries like Australia, New Zealand, East Asian and European nations have developed infrastructure and technology in this regard, e.g., The 'European Institute of Innovation and Technology' (EIT) supports several projects that contribute to eco-friendly port development under 'climate knowledge and innovation community' (Climate-KIC). Under EIT one project is to set up eight Deep Demonstrations as test environments for the '1.5-consistent systems transitions', the Ports of Valencia, Piraeus and Cyprus participate in this project. The project aims to find solutions to reduce emissions of shipping activities in the region. Another Climate KIC example is the 'LOOP-Ports' project which aims to contribute to the transition to a circular economy model in the port sector by creating a network of ports to establish an innovative ecosystem and stimulate circular economy activities.⁵⁰ China and India are also moving rapidly in the direction of technological development.

Marine biotechnology is another sector that is very recent and has the potential to impact human lives not only economically but through the manufacturing of important drugs as well, e.g., several drugs (for example, Ara-A, AZT, Ara-C) have been developed in the past from the Caribbean coral reefs. Various drugs derived from marine organisms are commercialised in recent years, this sector is yet to be explored in Pakistan's maritime industry.⁵¹

Conclusion

Pakistan's foreign policy has always remained security-centric, despite having enormous potential for economic development. Islamabad has to reshape its policies on economic grounds with countries like Australia and other NATO members. In the past, following the Afghan war, Pakistan and Australia cooperated in

defence. For example, both countries engaged in security dialogues, gave scholarships and training to each other's officers, government agencies and think tanks discussed issues of mutual strategic interests. But now is the time to discuss mutual economic interests.⁵² Sustainable development must be a part of policy, which will not only make the economy sustainable but also help the country secure its environment and marine ecology.

Free access of Chinese firms to the ports of its neighbours, i.e., Sri Lanka, Bangladesh, and Pakistan, alarms policy circles in New Delhi. To counter China, India tries to deepen its cooperation via trade, technology, and most recently through 'vaccine diplomacy'. However, due to historical antagonism with Pakistan, India adopts a declared containment policy through influencing neighbours, i.e., Afghanistan, Iran, and Gulf Countries and also via propaganda to defame Pakistan in the Western societies, a recent example of which is the *Indian Chronicles*, a research report published in December 2020 by the EU Disinfo Lab that revealed Indian subversive activities over the past fifteen years in Europe and other countries to undermine Pakistan.⁵³

The power polarity in the region, historical fault-lines, the hegemonic vision of India, and increasing militarisation due to the contention between New Delhi and Islamabad also resulted in the failure of the regional organisations, such as the South Asian Association for Regional Cooperation (SAARC) to boost economic cooperation in the region. Pakistan has always been economically less connected with its immediate neighbours, i.e., India, Afghanistan, and Iran. While bilateral connectivity with China under CPEC is encouraging, connectivity with other countries of the region is crucial for the economic development of the country.⁵⁴ Pakistan could also avail Chinese technological assistance to strengthen various sectors of the blue economy through infusion of technology.

The year 2020 was declared as the year of blue economy by Prime Minister Imran Khan but due to the Covid-19 pandemic, the

economy suffered. Now it is time to focus on it as the pandemic is almost under control. To boost economic growth, the country must have a multi-dimensional economic policy, of which blue economy should be an important part. To strengthen the blue economy, Islamabad must invest in its resources and enhance connectivity with other countries. Firstly, investment in resources may include development of infrastructure, i.e., ports and shipyard construction, the introduction of modern technology and efficient catching, packaging, and transportation of fish and fish-products, research and development in the maritime sector, public-private partnership, and communication and coordination among federal and provincial departments responsible for the maritime sector.⁵⁵ Secondly, a three-way connectivity could be established. First is through including the blue industry in trade and investment with other countries, which could be either regional or extra-regional. Second is through assisting or acting as a conduit for the trade of the neighbouring land-locked countries, i.e., Afghanistan and Central Asia, and utilising its geostrategic advantage of being a littoral state. Third and more important is cooperating with countries in areas such as sustainable development of the ocean resources, security of the region, technological exchange, skill development, etc.

Pakistan could cooperate with different countries of Europe, Australia, East Asia, and North America on developing a blue economy through upgrading technology. Marine biotechnology is another sector where Pakistan could cooperate with developed countries or international research institutions to utilise marine resources for better medical purposes. At the same time, the conservation of the natural environment is very important for biodiversity.

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