STUDY OF CHALLENGES FACED BY MARITIME GOVERNANCE AND THEIR SOLUTIONS BY THE MODERN SCIENCES

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ABSTRACT: Gwadar is becoming a key factor in bolstering Pakistan's ailing economy. It is astonishing that Gwadar, a small fishing village in Pakistan, is swiftly becoming a smart deep-sea port city. Considering the significance of the region, the Pakistani government has designated Gwadar as a duty-free port and a free economic zone. This has increased its commercial significance and accelerated its rate of development to an incredible degree. When the city's development projects, recreational programs, and special economic zones complete, it will be comparable to Singapore, Hong Kong, and Dubai due to its advantageous strategic location. The western port city of Gwadar has already attracted the attention of the global maritime communities. It is highly likely that the port city of Gwadar will be economically more successful than anyone can evaluate.

Keywords: Strategic Importance of Gwadar Port, Economy, CPEC, and CPEC.

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INTRODUCTION

The Gwadar district, with its six hundred kilometers of coastline and unirrigated stretches of the Kulanch and Dasht valleys, has always been an integral part of Makran (GDA, 2020). After the establishment of Pakistan in 1947, the regions outside of Gwadar and its surroundings joined the Balochistan States Union in early 1949 as part of the Makran state, along with Kalat, Lasbela, and Kharan. Makran became a district of the old West Pakistan province in October 1955, after it acceded to Pakistan. In 1954, the newly founded Pakistani government saw the immense economic potential of the small Omani city of Gwadar. Gwadar was returned from Oman to Pakistan in 1958 and declared a tehsil of Makran district, having been purchased for $3 million for this reason and being physically contiguous (BHC, 2020). On July 1, 1970, when Balochistan was elevated to the status of a province, Makran became one of its eight districts. On July 1, 1977, Makran was established as a division and divided into three districts: Panijur, Turbat, and Gwadar. The combination of constructing the port city and offering a land connection to China would drastically reduce China's oil transport chain, as Gwadar is less than three hundred kilometers from the Strait of Hormuz, the primary conduit for the world's oil commerce.

The Importance of Gwadar: Gwadar, located near the mouth of the Persian Gulf and approximately 460 kilometers from Karachi, has had great geostrategic significance on several fronts (Ashraf, 2017). The Asian Development Bank's (ADB) Ports Master Plan studies evaluated an alternative to the Persian Gulf Ports to capture the transit traffic of the Central Asian Republic (CAR) as well as the trans-shipment commerce of the region considering the geo-economic imperative of regional development. Due to their shallower depth and distance from the main shipping routes, as well as draught restrictions for mother ships and large bulk oil carriers, and lengthy turnaround times, both Karachi Port and Port bin Qasim were deemed unattractive by major shipping lines. Due to its unique depth, Gwadar was deemed by ADB studies to be the ideal location in the region for an alternate port that might eventually accommodate mother ships and huge oil tankers.

Gwadar is strategically placed at the westernmost point of the Balochistan coast, opposite the Gulf of Oman and the mouth of the Strait of Hormuz. When the deep port becomes operational, the region's strategic worth will be further enhanced by the many planned transnational oil pipelines. Chinese financial support and technical skills will continue to play a crucial role throughout the development of the port and its connectivity to the hinterland utilizing roads, rails, and gas pipelines.

As envisioned, the viability of the port of Gwadar depends on its capacity to serve as a transshipment, transit, and energy hub. The port project is still in its infancy, and its success is dependent on Pakistan's policies. It involves rigorous economic planning and the execution of foreign policy alternatives. Other strategic imperatives and security concerns may impede Gwadar's establishment as a major port. This study paper examines the port of Gwadar's potential impact on Pakistan's bright future. The study also examines the port's economic potential and concludes
with a few suggestions for turning the vision of Gwadar into concrete economic and political achievements.

significance of Gwadar

Geo-Political Importance: India was the first country in subcontinent to have a dry dock, through which Indian trade and culture were transported across the ocean. These sailors transported Indian silk, spices, and antiques to East Africa, the Persian Gulf, and beyond. With the entrance of the Mughals, however, India quickly sought to restrict sea contacts. This would have disastrous implications, leading to the British invasion of the subcontinent. Through the China-Pakistan Economic Corridor (CPEC) and the building of the Gwadar Port, however, the ancient dream of the Central Asian Republics (part of the former Soviet Union) and China's “access to the warm waters” would soon come true. Geographically, the CPEC connects the Kashgar autonomous area in West China by a 3000 km road and rail link to the southwestern section of Gwadar in Pakistan (Baluchistan) (Global Security, 2018). This is a complex agreement involving the following areas of cooperation:

- Coal-burning power plants
- hydroelectric and wind power generation.
- Solar Power Plants
- Coal supply

This corridor is to benefit some of the most underdeveloped regions of Pakistan by eliminating poverty and creating employment possibilities while simultaneously lowering the transportation time for Chinese commodities and energy. Currently, it takes approximately 45 days to export products from China to the Middle East and Africa via the Strait of Malacca. However, this might be reduced to less than 10 days if delivered via Gwadar Port. Through energy and economic cooperation, the CPEC will connect Central Asia, West Asia, and the Gulf states in a broader sense. Goods shipped by water must travel more than 10,000 miles to reach Chinese ports on the country's eastern coast and then another 3,000 kilometers by land to reach markets in western China. In comparison, the Gwadar port is only 2500 kilometers away from China, and it is operational throughout the entire year due to the warm waters. Therefore, China's interest in the development of the Gwadar port is based on its economic importance. Gwadar will also have port facilities for Central Asia because it is close to the Iranian border.

Currently, Dubai is the business center not just for the Gulf region but also for the rest of the world. Because of this, Dubai serves as a model port for the other countries in the area, which must replicate its success in taking advantage of the benefits of international sea traffic passing through the oil-rich region to bring prosperity to the people of the neighboring states. Gwadar is the closest port that is also the most cost-effective relative to Dubai. So, Gwadar port is destined to bring prosperity not only to Pakistan but also to the adjoining areas.

Geo-Strategic Importance: Gwadar is the nearest port to southern Afghanistan, where the second largest city in the country, Kandahar, is located. A highway connecting Gwadar and Chaman on the Pak-Afghan border may enhance the flow of imports into southern and central Afghanistan by reducing the expense of road transport. Xingjian is 4,500 kilometers from China's east coast but only 2,500 kilometers from Gwadar. This will allow China to channel its international trade through Gwadar.

It was obvious that countries with concerns about Pakistan and China's strategic cooperation would oppose the building of the Gwadar port. Observers have increased their attention to Gwadar's strategic significance, particularly in the context of China's future energy security strategy and view it as a danger to their own interests. With the development of Gwadar port, China's aim of gaining a foothold in the Indian Ocean without an aircraft carrier is coming true. Given the deployment of the United States Fifth Fleet in the Persian Gulf, China's presence at Gwadar is a significant strategic achievement (Kumar, 2006). The reality on the ground, however, is different.

The construction of Gwadar has illuminated China's maritime past. China's growing interest and influence in the South China Sea, Indian Ocean, and Arabian Gulf has been described as a “String of Pearls” strategy that could pose complex regional challenges for the US. In these assessments, which are laden with strategic connotations, the commercial aspect of these facilities and China's expanding global economic interests are deliberately downplayed to create an alarming picture. Even though both countries have legitimate economic interests, several researchers who have defended China's work with Pakistan to build the Gwadar port have also said that the Chinese may not use it for military purposes to keep the region stable.

While emphasizing the strategic significance of Gwadar, many experts tend to overlook the fact that it is a Pakistani port, even though it was constructed with Chinese assistance and loans, and that Pakistan is a sovereign state that makes decisions based on its national interests. Gwadar has made the west coast of the country another business hub.

Geo-economic relevance: On March 20, 2007, with the opening of the first phase of the Gwadar deep-sea port, a new milestone was added to the developing commercial ties between Pakistan and China. Pakistan designed Gwadar Port after recognizing the potential of its strategic geographical location at the crossroads of three sub-regional systems — South Asia, West Asia, and Central Asia — with the intention of establishing a commercial corridor for China, Central Asia, and
Afghanistan. Net evaluations of the rising energy need of China and India's fast increasing economies have bolstered Pakistan's vision of functioning not just as a trade gateway but also as an energy corridor (Haider, 2005). To achieve the potential of becoming a “Trade and Energy Corridor” (TEC), Pakistan's leadership has in recent years focused particularly on China and other surrounding nations to join Pakistan's efforts. Saudi Arabia is also exploring the possibility of supplying China with electricity through this corridor. While the significance and utility of Pakistan's TEC are applicable to numerous nations, the infrastructure for TEC needs financial contributions worth many billions of dollars, which China wants to do and can do.

Prospects for the Gwadar Port

**Gwadar as a Transportation Hub:** One of the major reasons for building Gwadar Port is to make transit trade between Central Asian Republics easier and more likely by giving them dedicated, efficient, and affordable port facilities. Gwadar's development as a deep seaport is said to be driven by the myth of anticipated significant volumes of transit trade from the CARs and Afghanistan. From this point of view, building the Gwadar port is an innovative idea and should be supported.

The transit trade of CARs is currently handled in part at UAE ports, from which it is transshipped to Bunder Abbas and then transported to CARs via land and rail. This includes duplicate handling at the UAE and Iranian ports. A hub port at Gwadar will facilitate land-based shipments to and from CARs.

Afghanistan's transit sea traffic is currently handled through Karachi Port but will be redirected to Gwadar when the land connection is constructed. The Central Asian Republics (CARs), which are landlocked countries in the northwest of Pakistan, send and receive goods through Gwadar Port. This gives Gwadar Port a large potential market for handling its import and export trade by sea. It serves as a hub for goods going to landlocked countries like Afghanistan and the Central Asian Republics.

**Gwadar as a Transshipment Terminal:** A further purpose of Gwadar Port is to serve as a mother port for neighboring ports that cannot accommodate mother ships. This pertains to transshipment traffic. Gwadar is strategically placed near major maritime routes and will eventually be able to accommodate mother ships and larger oil tankers. However, Salalah Port (Oman) may pose competition for the transshipment trade. M/s. The Fourth Harbour Engineering Investigation and Design Institute proposed in its 2003 basic design report that Gwadar, when fully built as a port, can attract at least 100,000 TEUs for transshipment via Feeder Services. By 2025, the conservative number of 165,000 TEUs will gradually expand to a maximum value of 275,000 TEUs. Due to its favorable location at the tip of the Strait of Hormuz (Persian Gulf), Gwadar is projected to develop into a regional economic center. It has the potential to serve as a major link to China, Afghanistan, and the Central African Republic, thereby drawing transshipment trade with more than twenty nations, including Sri Lanka, Bangladesh, Oman, UAE, Saudi Arabia, Qatar, Iraq, and Iran. These nations may establish warehouses in Gwadar for the export of goods and

![Figure 1: Gwadar Port Geography, retrieved from SatellitesPro](image_url)
subsequent shipping to their home countries (Portnews, 2006). The port complex will provide warehouses, transshipment, transit, and coastal trade facilities, as well as commercial and industrial opportunities for worldwide import-export commerce. It is noteworthy that Dubai, Fujairah, and KhorFakhan are booming in the transshipment industry. These UAE ports suffered comparable conditions to those that Gwadar is experiencing now. It was the UAE's aggressive strategy to dominate the market which relied exclusively on transshipment activity. Given the preceding arguments, it is reasonable to assume that Gwadar port will be a viable choice eventually. Without communication infrastructure, Gwadar can be utilized as a transshipment port through careful planning and effective marketing. In the meantime, efforts should continue to supply CARs with road and rail connections.

**Gateway to Central Asian States:** Gwadar port's commercial opportunities will multiply after establishing connections with the Central Asian Region. The overall population of this region is around sixty-five million, which is split among six republics, three of which, Uzbekistan, Tajikistan, and Turkmenistan, are near Pakistan and will be consumers of the Gwadar port. The region's current overall foreign commerce is expected to be 20 billion US dollars, with exports totaling 12 billion US dollars. The entire weight and volume of foreign trade is around eighty million metric tons. All types of consumer goods, electronic devices, and clothing comprise most of the imports from various ports. Our primary export concentration comprises cotton, metal ores, machinery, gas, and oil.

The road distance between Kushka in Turkmenistan and Gwadar is 1200 kilometers, although the closest Black Sea port, Odessa in Ukraine, is around 3400 kilometers from the Central Asian states. Consequently, Gwadar becomes the most viable choice accessible for CARs. The planned 500-kilometer-long motorway connects Gwadar with CARs via Panjgur, Chaghi, and Rabat up to Heart.

**Trade and Energy Corridor (TEC):** Pakistan's new leadership has targeted China and other neighboring nations to join Pakistan's efforts to establish a "Trade and Energy Corridor" (TEC). Moreover, the infrastructure for TEC requires multibillion-dollar financial investments, for which Saudi Arabia, the United Arab Emirates, and China have both the will and the capacity. The feasibility of constructing a railroad and a pipeline along the KKH to the Chinese border is being investigated. Saudi Arabia is investigating the possibility of exploiting this tunnel to supply China with electricity. During the next visit of the Prime Minister to China in early 2020, the contract for the subject railway track will be finalized.

With the firm conviction that it can capitalize on its geographical advantage, Pakistan has taken the first steps toward establishing the necessary infrastructure for the TEC. Gwadar port is important to the TEC because the whole idea of the TEC depends on how well Gwadar port works and how quickly the infrastructure facilities for trade and energy supply are built.

It is important to note that Iranian Port Chahbahar offers a comparable transit route and Iranian commercial interest in capitalizing on the opportunity, which may spark commercial competition. In recent years, a portion of Afghanistan's road network has been developed with the assistance of Indian money, which may facilitate access to Chahbahar. It is expected to encourage CAR to obtain access to warm water through Iran. Such a scenario would result in commercial competition between ports with higher international standards and more effective cargo handling. Because of the depth problem in the Gwadar area, the port of Gwadar has a major advantage that no other port in the area.

**Growth and interconnectivity**

**Construction of Gwadar Port:** Pakistan's President, General Pervez Musharraf, and the Chinese Minister of Communications, Li Shao sheng, formally launched the first phase of Gwadar port on March 20, 2007. The Chinese government committed US $298 million to the first phase of the Gwadar port, while the Pakistani government contributed US$50 million. In the first phase, three 602-meter-long multipurpose berths, a 4.5-kilometer-long approach channel dredged to 11.5–12.5 meters, a 450-meter-diameter turning basin, and a 100-meter service berth were built.

The Economic Co-ordination Committee of the cabinet met under the Prime Minister on 1 February 2007 and authorized the Gwadar Port Authority (GPA) to enter into a 40-year agreement with the Port of Singapore Authority (PSA) and its subsidiary, Concessional Holding Company (CHC), for the development and operation of the tax-free port and duty-free trade zone20. To "enable Gwadar to compete with its regional peers" in an extremely competitive market, the port fees will be kept low by giving PSA companies a variety of tax breaks to lower their operational and business costs. "These include a total exemption from corporate tax for 20 years; duty-free imports of supplies and equipment for the development and operation of the port; and a free economic zone, as well as a zero rate of duty for shipping for 40 years." Even so, on June 30, 2013, the cabinet gave China Overseas Holding permission to take over management of Gwadar Port from the Port of Singapore Authority (PSA). This was because PSA22 had not done a decent job. Since then, the Chinese have managed the port.

The most obvious advantage of having a hub-port is that the port’s revenue improves due to the double handling of cargo. Another significant advantage is that it permits direct dispatch of the country's imports and
exports. Additionally, the establishment of free-trade zones is intrinsically tied to the concept of a hub-port. Cooperation in Energy and Pipelines

The Ministry of Petroleum and Natural Resources of Pakistan and the National Development and Reform Commission of China signed a Framework Agreement on Energy Cooperation in Beijing on February 20, 2006. In accordance with this agreement, the first energy forum was held from April 25-27, 2006, in Islamabad. At the Energy Forum, the Pakistani side also presented a blueprint of the proposed 3300-kilometer-long Karakoram oil pipeline; this includes a 30-inch diameter pipeline from Gwadar to Khunjerab, passing through Awaran, Pir Muhammad, Khudzar, Shikarpur, D. I. Khan, Kundian, Mianwali, Talagang, Ghaib, Fatehjang, Haripur, Mansehra, Patan, Dasu, Chilas. The proposed pipeline could move 12 million tons of oil per year and would cost between $4.5 billion and $5 billion.

Since the Forum's suggestions, feasibility studies for numerous projects have been outsourced. Recently, Saudi Arabia has expressed interest in utilizing Pakistan as an energy corridor to carry its refined oil to China. According to reports, Saudi Crown Prince Muhammad bin Salman raised this possibility during his February 2019 visit to Pakistan. China’s Energy Transportation Options

China has made securing various energy delivery channels a top goal. To reduce its reliance on the sea, China has been planning and building overland pipelines for energy transit from neighboring countries such as Russia and Central Asia. In 2006, a 988-kilometer pipeline from Kazakhstan to the western parts of China began flowing oil; China erected this pipeline in a record-setting ten months. The recent completion of a second Russian pipeline with a capacity of twenty million tons per year. Already, more than ten million tons of crude oil are delivered by train from Russia to China. In addition to Russia, Turkmenistan and other Central Asian republics are negotiating alternative pipelines. In accordance with the concept of a "String of Pearls," Gwadar is part of China’s strategy for bolstering the security of sea-lanes of communication. The Chinese are interested in transforming Gwadar port into a transit hub for crude oil imports from Iran and Africa to Xinjiang25. Consistent energy supplies show that building a strong overland transportation link between Yunnan and the Bay of Bengal and between western Xinjiang and Gwadar could help China keep energy flowing through the eastern and western Indian Ocean.

Gwadar’s connectivity with the hinterlands: Goods sent to Western China via the Karakoram highway will have a substantial economic advantage due to lower shipping expenses. Goods shipped by water must travel more than 10,000 miles to reach Chinese ports on the country’s eastern coast and then another 3,000 kilometers by land to reach markets in western China. China has committed to assist Pakistan in upgrading and enlarging the Karakoram highway to improve the delivery of products over land. In this regard, China Road and Bridge Corporation and Pakistan's National Highway Authority have signed a memorandum of understanding for the upgrading of the 335-kilometer length of road between the Rajkot Bridge and the Khunjerab mountain pass. Under the improvement plan, the road will be made all-weather so that it can be used all year long. Its width will also be increased from 10 to 30 meters so that long vehicles can use it.

Pakistan is also building an internal network of roadways and rails to support a north-south TEC. A coastal highway connects Karachi to Gwadar, and preparations are underway to connect it to Iran. Additionally, a 950-kilometer-long motorway connecting Gwadar to Turbat, Khudzar, and Ratodero will be constructed. Soon, a new road will link Quetta to Zhob, D. I. Khan, Loralai, and D. G. Khan. This will connect Balochistan to the Punjab and Khyber Pakhtunkhwa.

The project to upgrade the KKH should not only be viewed from the perspective of Pakistan's aspirations for the TEC but also as a logical reaction by Pakistan and China to the numerous initiatives in the region to build east-west and north-south trade corridors. China has done an excellent job of connecting its western regions that border Central Asia and Pakistan with its central regions. The KKH and other connections may be used to increase trade with West Asia and South Asia.

The Building of Railways: As an integral component of the Trade and Energy Corridor Project, a railway line along the KKH connecting Pakistan and Western China is being proposed. The objective of constructing a rail line is not only to facilitate trade but also to transfer energy if a pipeline is not feasible. This rail line will connect Gwadar, where facilities for oil refining and storage are being constructed. In this regard, as a first step, the Pakistan Railways authorities solicited bids from companies interested in preparing a feasibility study for the planned project for the study of the 1,000-kilometer rail line. In Pakistan, the 750-kilometer track begins in Havelian, a small village near Abbottabad in Khyber Pakhtunkhwa, and continues over the Karakoram mountains to the Pak-China border at Khunjerab. The second section, a 250-kilometer-long track, will be built within the Chinese state of Xinjiang. According to experts, the cost of constructing this train line is comparable to the $5 million per kilometer cost of constructing a rail line in similar hilly terrain in Tibet. It means that the total cost of the rail track project up to Xinjiang will be about $5 billion, which is a huge amount of money.
Pakistan Railways intends to construct a new railway link between Gwadar and Mastung to provide inexpensive, efficient, and dependable rail service that will pass through the middle portion of the province, primarily for the transportation of agro-industrial products, the movement of general goods, and the creation of travel facilities for the Balochistan province's residents. At a later stage, when rail links at other locations in Afghanistan, Iran, and Central Asian Republics (CAR's) are completed and there is a political will on the part of the respective governments of these countries to establish a mutual trade link between themselves, the significance and role of the new Gwadar-Mastung railway line will increase manifold, acquiring the status of an economic hub serving the international rail traffic from the region. The railway line from Quetta to the Iranian border town of Koh-I-Taftan extends to Iran's Zahedan. It is believed that the construction of an additional six hundred kilometers of railway would be necessary to connect to the main Iranian railway system at Kerman. This project is planned as a "mother hub" that will offer the necessary strength and economic boost for future Balochistan developments. So, it would be best to look at this project, which is a justification for future economic dominance.

Conclusions and Suggestions: As a result of its unique geographical advantage, Pakistan has enormous potential to become a TEC for nearby regions. In the short term, however, China is more optimistic about Pakistan being a commercial corridor as opposed to an energy corridor. As rivalry for energy resources intensifies in the future, Pakistan will undoubtedly function as an energy corridor for China. Soon, Pakistan must give equal weight to supplying TEC facilities to its South Asian, Central Asian, and West Asian neighbors, since they are keen to utilize Pakistan's TEC facilities. But law and order and the availability of trained people are the most crucial factors in making sure that Gwadar can be successful, and the government is putting a lot of effort into those areas.

As a result of the government's new initiatives, law and order in the province may be described as adequate and is likely to encourage foreign and domestic companies to invest in the region. The Baloch people's perception of deprivation has been addressed by the government. The administration is now aware that the peace and order situation cannot change unless the people of Balochistan, and particularly those of Gwadar, have a sense of ownership and are satisfied that the advantages of development will be shared with them. The availability of qualified personnel is also essential for the management and operation of the Gwadar port. Priority should be given to resolving the outstanding issues and MOUs with the Chinese government about Gwadar port and Gwadar city so that the port can work and grow in peace.

Recommendations

1. The operational capability of Gwadar Port must be utilized to its maximum extent. Consideration may also be given to the financial viability of the port for the local community, which complains that Balochistan is not benefiting from this investment. The Federal and Provincial governments are expected to prioritize the local population's interests.

2. In addition to oil piers and container terminals, more berths must be created. Before continuing to talk with the Chinese about building and running the port as soon as possible, all important problems need to be talked about in depth with the right people.

3. There are substantial opportunities for trade with the CARs and Afghanistan, which must be routed through Pakistan, to the benefit of all parties involved. Because this transit route is being built, the CARs and Afghanistan will mostly use the port of Gwadar to bring in and send out goods.

4. Gwadar port is not yet completely operational; China may be invited to use Gwadar port for its western regions' import and export. The port of Gwadar could also be used to handle cargo for more Chinese projects in Pakistan.

5. The railway link should be designed in consultation with the CARs and Afghanistan, considering their requirements and suitability. It would make more sense to extend the railway with a Russian gauge through Afghanistan to Gwadar along the shortest path possible so that freight trains from the Central Asian Republics could run straight to Gwadar.

6. For export promotion zones, industrial zones, and commercial complexes to grow, people must be able to get to basic utilities.

7. Before you can invite investors, you need to have things like water, electricity, gas, and telecommunications set up.

8. Institutions for vocational training and education should be set up as soon as possible and well in advance to make sure that there are enough trained and skilled workers for the industry and port operations when they are needed.

9. Instead of competing with Chabahar Port in Iran, a business collaboration strategy must be developed to create a solution where everyone benefits for all parties. For this to happen, it will be important for Pakistan to let CARs and India pass through with their transit cargo.

10. Ports require a considerable amount of time to become fully operational, so the governments of Pakistan and China must not make rash judgments. The success of the Gwadar port is
crucial not only because of the massive investments made in it, but also because it will have a significant impact on the growth of Balochistan and its population. Due to how much the CARs and Afghanistan depend on each other, if Gwadar can capture their transit traffic, it will also help to build long-term friendships and business relationships with these countries.

REFERENCES


