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21st Century Maritime Silk Road and Suez Canal

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ABSTRACT

Aim: This paper discusses the Suez Canal and its recent blockage in relation to the global supply chain and the Belt Road Initiative (BRI), with the goal of answering the following questions: "What are the Chinese strategies and alternative routes from China to Europe and the U.S.?" and "What are the BRI development opportunities and challenges in Egypt and other countries involved?" The authors analyze and assess China's port/canal diplomacy and development strategies for using the Suez Canal and alternative routes.
Methodology: We rely on literature review as our research methodology. Through literature review, we gather information and analyze China's port/canal diplomacy and development strategies of using the Suez Canal and exploring alternative routes. More specifically, we compare the advantages and disadvantages of using the Suez Canal and alternative routes, and recommend good, safe, cost-effective, sustainable routes of transportation and global supply chain.
Findings: While discussing the status of the Belt and Road enterprise and innovativeness in developing international opportunities that are equal, balanced, and sustainable, we address the challenges and issues of the Belt and Road Initiative, such as environmental and stainability challenges. In addition, there are economic, political, and social justice issues. China's massive "Belt and Road" global infrastructure funding strategy is deemed to base on an opaque overseas development finance program that has caused the controversial “hidden debt".
Implications/Novel Contributions: The future of the Belt and Road Initiative is considered uncertain and necessitates adjustments and changes in the BRI policy and implementation. Our analysis contributes to a realistic and fair assessment of the development opportunities and challenges of BRI. It offers recommendations for analyzing the shipping routes, global supply chain, and the Suez Canal blockage. For China to carry on the BRI projects, the Belt and Road Initiative must address environmental and sustainability issues and loan transparency. Private sectors and international organizations need to be included to address the problems of global concern and collaboration.

Key Words: Silk Road, Belt and Road Initiative, 21st Century Maritime Silk Road, Suez Canal, Egypt Vision 2030

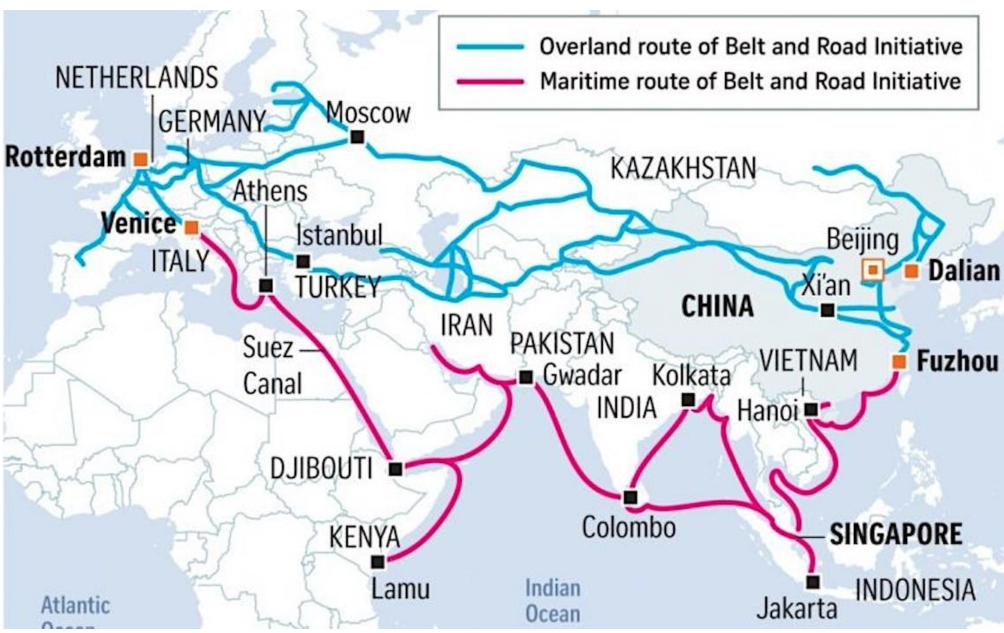
INTRODUCTION

Belt and Road Initiative (BRI) is part of China's New Silk Road (NSR) and the most important investment worldwide in terms of the number of countries involved in projects and the amount of financial resources devoted to the initiative. This trade route was designed to increase not only the trade throughout the nation but different national economies that are a part of the route. Because of its size, this trade route has involved more than half of the world's population. China's Maritime Silk Road (MSR), part of BRI, connects the Southeastern coastline of China to the Mediterranean Sea through the South China Sea, the Indian Ocean, and the Suez Canal.

The Suez Canal is one of the most critical waterways connecting Europe to Asia. Over $9.6 billion transported goods shipped across the Suez Canal every day (Goulard, 2021). Roughly 30% of global container traffic flow through the Suez Canal annually.

The ancient Silk Road was established 2100 years ago to promote trade between China and Europe. The more than 7,000-km-long road has been a catalyst for development, facilitating the flow of goods, culture, art, history, and religion between China and the West for many centuries (Maro & Torok, 2022). The silk road was traveled by Eurasian businessmen and explorers to trade spices, silver, porcelain, and other goods. The most famous explorer and pioneer of the East-West Communication, Transportation, and trade on the ancient Silk Road was Marco Polo. *Description of the World* or, more commonly, *The Travels of Marco Polo* was the most influential travelogue concerning China in the 13th century (Yu, 2014).

For many people all over the world, when they think of China, they also think of Marco Polo, and when they hear Marco Polo's name, they think of China. This Venetian of over 700 years ago established an indissoluble bond with the most prominent ancient country in the East. In the 13th century, China's economy, culture, science, and technology were among the most advanced in the world. Western Europe was still far behind the East (Yu & Yu, 2016). The term "Silk Road" can be traced back to the German explorer called Ferdinand van Richthofen, who visited China several times in the mid-1800s and coined the term. After the 15th century, the Silk Road, together with China's dominant role, lost its importance and power due to geographical discoveries. Technological changes and dramatic decline in transport costs have so far forgotten the Silk Road, as global trade has been switched from the ground to the sea and air. The development of roads, particularly rail technologies, and the transformation of political structures between Europe and Asia have made it possible to create a New Silk Road, using both land and marine routes (Maro & Torok, 2022).



China's Belt and Road Initiative (Credit: Twitter.com)

The New Silk Road is advocated as "Belt and Road Initiative"(BRI), which attempts to connect the continents of Asia, Europe, and Africa through a combination of infrastructure projects and soft-power programs. All the land and marine routes under the BRI extend westward, mostly passing through Central Asia and the Middle East on land or by sea. The BRI was officially launched by Chinese President Xi Jinping in a speech at Nazarbayev University in Astana (Kazakhstan) in September 2013. It initially involved 65 countries in Asia, Europe, and Africa and will be wholly completed by 2049.

Cooperation with countries in these regions will, according to China's design, meet its domestic energy needs and grow the country's economy (Hoh, 2019). The BRI involves investments in port areas and inland logistic and industrial facilities along these maritime routes. According to estimates, China will spend around $1,000 billion to implement the initiative in the next ten years. The financial resources required would total approximately $8,000 billion over the entire investment period (Abu al-Khair, 2021).

Egypt is the biggest country in North Africa, with almost 100 million inhabitants. It lies in an enviable geographic position between the Mediterranean Basin, the Red Sea, and the Middle East. Above all, it controls the Suez Canal, a strategic chokepoint between the Indian Ocean and the Mediterranean Sea (Docks The Future, 2020). The Suez Canal has been one of the most critical waterways connecting Europe to Asia. Over $9.6 billion transported goods shipped across the Suez Canal every day (Goulard, 2021). Roughly 30% of global container traffic flow through the canal annually. Suez Canal is the shortest maritime route linking Asia and Europe, cutting travel time between the two continents by as much as ten days and 6,200 miles (10,000 kilometers) compared to circumnavigating Africa (Daly, 2021).

On March 23, 2021, the 240,000-ton, 1,310- foot-long (399-meters) Panama-flagged MV container ship *Ever Given*, carrying 20,000 containers from China's Yantian International Container Terminal in Shenzhen, and bounding for Port of Rotterdam, accidentally grounded its bow on the Suez Canal's eastern bank, while transiting northwards from the Red Sea. It completely blocked the passage in both directions for six days, stranding 422 waiting vessels and paralyzing the global shipping industry. Indeed, with an average width of 672 feet (205 meters), the canal faces increasing challenges in accommodating gigantic vessels like the *Ever Given*, as container ships get bigger and bigger, with the largest currently capable of transporting 24,000 containers. Over 60 percent of Chinese goods shipped to Europe pass through the Suez Canal, and Chinese ships account for around 10 percent of the Suez's annual traffic volume (Daly, 2021).

METHODOLOGY

The Suez Canal jam, caused by a stranded container ship, has posed an unprecedented challenge to the global supply chain. It pushes businesses to look for new options to diversify their trading routes, especially along the Belt and Road. Suez Canal has become a major channel for cargo transportation and anti-virus supplies from factories in China to the markets in Europe and the U.S. during the pandemic. The goal of our research is to investigate the Suez Canal and its recent blockage in relation to the global supply chain and China's Belt and Road Initiative, and attempt to answer these questions: "What are the Chinese strategies and alternative routes from China to Europe and the U.S.?" and "What are the BRI development opportunities and challenges in Egypt and other countries involved?" Because of the Covid-19 pandemic and travel restrictions, it is difficult to travel and conduct interviews with the Suez Canal Authority, Chinese Ports, Port of Piraeus, Port of Rotterdam, and Port of Antwerp. We rely on literature review as our research methodology. Through literature review, we gather information and analyze China's port/canal diplomacy and development strategies of using the Suez Canal and exploring alternative routes. More specifically, we will compare the advantages and disadvantages of using the Suez Canal and alternative routes, and recommend good, safe, cost-effective, sustainable routes of transportation and global supply chain.

LITERATURE REVIEW

Belt and Road Initiative has both a land-based and maritime component. The maritime element – the Maritime Silk Road (MSR) – connects China to Europe and Africa via the Middle East. Its land-based equivalent – Silk Road Economic Belt (SREB) – seeks to connect China to Europe, largely via Central Asia, but also to a lesser extent via the Middle East. MSR is by far the most significant route for the Middle East since it affects a larger number of regional states than the SREB.

It is conceived as running from the South China Sea via the Indian Ocean, through the Gulf of Aden and the Suez Canal, and terminating Port of Piraeus in Greece. China is increasingly dependent on energy imports. In 2013, China became the largest importer of crude oil globally.

Almost half of China's crude oil originates from the Middle East, along with 10-20 percent of its natural gas imports. Navigation security is a crucial concern for China. Most vessels transporting goods, including oil, between China and Europe must pass through several choke points in the region. The importance of the Suez Canal for shipping Chinese goods to Europe makes Egypt a key state (Watanabe, 2019).

Egypt's Suez Canal, which is 120 miles long and about 205 meters wide, started operating on November 17, 1869. It is an artificial trading waterway and an important supply chain channel carrying 13.5% of the world's freight (Lee & Wong, 2021). It is expected to become a pivotal part of the Belt and Road Initiative as it will be the only maritime connection between Africa and Asia on the one hand and Europe on the other hand (Tawil, 2019). It usually takes 30-40 days by ship from China to Europe, while it only takes 15-25 days by train. During the Suez Canal blockage, some ships needed to detour around the Cape of Good Hope, taking an additional 10 days.

The Suez Canal blockage has made it particularly necessary for China to build land and alternative routes. More than 2,000 freight trains were running from China to Europe in the first two months of 2021, doubling the number at the same time in 2020. While the upward trend toward freight trains is resilient, there are also limitations compared with ships. The ships' capacity is at least five times bigger than trains. Given maritime shipping's lower-cost differential and greater efficiency than other transport modes, most Chinese exports will likely continue to be transshipped by sea. The largest container ships can carry the equivalent of over one hundred train loads. But the recent incident in the Suez Canal illustrates that navigating the waters may have other challenges and impediments to rail transport, such as national borders, gauge differences, and border congestions that are not among them (G.T., 2021).

China and Egypt have always had a strong relationship with each other. Due to this relationship, Egypt joined the Belt and Road Initiative at the very beginning. With Egypt joining, China needed to see what Egypt could provide to help them. Since Egypt controlled the Suez Canal, China saw an opportunity to grow its initiative. With the use of the Suez Canal, China could create a third belt and use the canal to include southern countries in Africa. China has put nearly $1 billion into the region, creating more infrastructures for Egypt. They have been able to build 33 industrial entities, including Jushi, the largest fiberglass factory in the world. There would be another $800 million to create a new factory in this area. China has also given Egypt $15 billion through investments. These additional infrastructure projects have provided more jobs for citizens of Egypt. The industries have provided millions of jobs and have caused the production cost to drop nearly 30% (CNBC Explains, 2021).

Egypt is part of the African Continental Free Trade Agreement (AfCFTA), providing free trade on all African traded goods. China has also been investing in Special Economic Zones in Africa and is using these to relocate some production facilities to take advantage of the massive African Continental consumer market, commodities sourcing, and cheaper labor. A primary example of this is the Suez Canal Economic Zone invested by both countries with China's party being the Tianjin Economic & Development Area (TEDA). It is a total area of 7.23 square km in the Ain Sokhna district of Suez province, east of the Egyptian capital Cairo. This zone is expected to become an important global logistics center and has already attracted numerous Chinese investors (Devonshire-Ellis, 2021). China, through several companies, was able to penetrate the Egyptian market, especially after the opening of the Suez Canal Economic Zone. Suez Canal industrial park investments provide opportunities for China to enter markets in Egypt at costs that are much lower than the costs they incurred with exports from Chinese territory (Abu al-Khair, 2021).

China and Egypt have a Double Tax Agreement so that Chinese companies may be able to use Egypt as a base to access the European Union since Egypt has a Free Trade Agreement with the EU. Egypt can benefit from China through introducing modern industries while China can benefit from the various trade agreements that Egypt has with the European Union, Africa, and Arab countries (Devonshire-Ellis, 2021).

In terms of financial integration, the central banks of both China and Egypt signed a three-year bilateral currency swap agreement with a scale of RMB 18 billion in December 2016. In addition, financial institutions, such as the China Development Bank, the Export-Import Bank of China, the Asian Infrastructure Investment Bank, the Industrial and Commercial Bank of China, and the China Export & Credit Insurance Corporation, have provided loans and credits for Egypt in various means in the past few years. The contract amount exceeded USD 5 billion. For example, the China Development Bank issued a loan of USD 1.4 billion to financial institutions in Egypt, USD 900 million of which was issued to the Central Bank of Egypt. It was the first large-scale credit issued by the China Development Bank (Chen 2018).

“China has quickly established itself as the financier of first resort for many low-income and middle-income countries, but its international lending and grant-giving activities remain shrouded in secrecy,” said Ammar A. Malik, a Senior Research Scientist at AidData and co-author of *Banking on the Belt and Road*. “Beijing’s reluctance to disclose detailed information about its overseas development finance portfolio has made it difficult for low-income and middle-income countries to objectively weigh the costs and benefits of participating in the BRI. It has also made it challenging for bilateral aid agencies and multilateral development banks to determine how they can compete—or coordinate and collaborate—with China to address issues of global concern.” Malik and his colleagues found that, during the pre-BRI era, China and the U.S. were overseas spending rivals. However, China is now outspending the U.S. and other major powers on a more than 2-to-1 basis. In an average year during the BRI era, China spent $85 billion on its overseas development program compared to the U.S.’s $37 billion. *Bank on the Belt and Road* demonstrates that Beijing has used debt rather than aid to establish a dominant position in the international development finance market. Since the BRI was introduced in 2013, China has maintained a 31-to-1 ratio of loans to grants (Wooley, 2019).

THEORETICAL BACKGROUND

China and Egypt have established diplomatic relations for 62 years. In 2013, Chinese President Xi Jinping put forward the "Belt and Road Initiative" and welcomed countries along the routes to take part in cooperation in the framework of the BRI. In 2014, Egyptian newly elected President Sisi visited China, and both sides improved the bilateral relationship. Then in 2016, Egyptian President Sisi launched a new national development strategy named "Egypt Vision 2030". Therefore, China and Egypt are looking for suitable areas of cooperation according to these two plans (Chen, 2018). "Belt and Road Initiative" and "Egypt Vision 2030" serve as the strategy frameworks of development and theoretical background.

After President Sisi came to power in 2014, he devoted himself to restoring national stability and revitalizing the economy. He introduced several economic reforms and development plans, such as the Suez Canal corridor development project, new capital construction, the golden triangle development zone project in Upper Egypt, etc. After more than two years of preparation, the new government officially launched the sustainable development strategy – "Egypt Vision 2030" in February 2016 and incorporated the above projects into more than 70 projects in the vision plan. The vision aims to place Egypt among the top 30 countries globally in terms of economic size (based on GDP), market competitiveness, human development, quality of life, and anti-corruption by 2030 (Chen, 2018).

Egypt's Port Said at the mouth of the Suez Canal was China's first port investment in the Middle East in 2005. Through COSCO Pacific, China bought a 20% stake in the Suez Canal Container Terminal (COSCO, 2005).

Egypt's President Sisi was seeking Chinese investments in various projects: 55% industrial, 20% construction, 19% services and others. On the port front, China operates Egypt's two main commercial ports at Alexandria and adjacent El Dekheila on the Nile Delta (Hassanein, 2019). In August 2020, Egypt signed a US$730 million deal with Hong Kong's Hutchison Ports to establish a Mediterranean container terminal with the naval base at Abu Qir in northeast Alexandria. Situated near the mouth of the Nile, the port has a draft of 18 meters, capable of handling mega-vessel.

Located South of the Suez Canal at the northern Red Sea Port Ain Sokhna, the Chinese conglomerate TEDA-Suez was expanding its industrial zone (Ghiles, 2019), thereby solidifying China's investment in Egyptian port operations (Rhode, 2021). COSCO and Hong Kong’s Hutchison Ports are large and powerful port operators in the world. Their investments together with TEDA-Suez represent an important part of China’s Maritime Silk Road strategy for Suez Canal and Egypt.

Egypt and China both have cognized the strategy frameworks of "Belt and Road Initiative" and "Egypt Vision 2030" and found opportunities to synergize the development strategies. The Suez Canal Economic Zone is integrated with BRI, making it one of the major development projects in the world. It has a pivotal role in increasing economic growth rates and creating more job opportunities in Egypt. President Sisi pointed out that China significantly contributed to numerous development projects undertaken in Egypt. Suez Canal Corridor was a substantial zone for cooperation between the two countries, as the BRI continued to provide Egypt with momentum for economic development. China has launched the Egyptian Suez Canal Economic Zone development project with several agreements with Chinese companies (Adawi, He & Allauddin, 2020).

DISCUSSION AND ANALYSIS OF ALTERNATIVE ROUTES

In 2020, China, for the first time, was seen as the EU's largest trade partner. While absolute trade growth was moderate and COVID-19 hit the maritime trade, rail routes from China to the EU reported a significant increase in trade value and volume. This growing trend of rail trade between the two economies has lasted for years since its start. The land route via rail is an alternative route to the maritime route. Trading concerns in Europe, the Middle East and Asia quickly understood how potentially disruptive the closure of the Suez Canal for an indeterminate period could be, resulting in a search for alternatives as soon as the extent of the problem was identified. For time critical delivery and price-sensitive goods, rail transport by any of the New Silk Road routes become the most feasible alternative solution, ahead of air and road freight. Although the rough transportation cost of China-Europe Express rail transport is 50 percent higher than maritime cargo, it is still much lower than the comparable air freight Costs (Daly, 2021). However, the current railway lines from China to Europe have limited transportation capacities and cannot transport more than 10 percent of the global amount of goods shipped between China and Europe (Goulard, 2021).

All shipping companies want to improve their transport efficiency and reduce costs. In the maritime sector, transportation costs are important to shipping managers. It is obvious that shipping costs go up with distance. Thus, companies are looking for the shortest route with the lowest cost. However, it is not the sole factor influencing the expenses. Factors such as cargo categories, ship types, and sailing speed must also be considered. Notably, Suez Canal is known as one of the most reasonable shipping routes. As cost is one of the most significant factors affecting the decision-making of businesses, its lower price compared to other routes is ideal. However, many issues arose when the Suez Canal was blocked. If this is the case, the shipping routes will be longer. Likewise, the transport cycle will also become lengthy. To avoid further delays, many vessels must abandon their original shipping route and deviate to the closest but lengthier route – the Cape of Hope. As a result, distances increased by between 4,000 and 6,000 nautical miles, and transportation expenditure increased by around 4 to 5% (Lee & Wong, 2021).

Because of the Suez Canal blockage and rising inflation, the shipping cost from China to Europe and the U.S. surged to a record high in September 2021. According to the Freightos Index, the median cost of shipping a standard rectangular metal container from China to the U.S. West Coast hit $20,586, nearly doubling the cost in July 2021, and quadrupling the cost in January 2021. The rising shipping costs, in combination with unprecedented supply chain challenges and high demand, have forced some companies to take matters into their hands to ensure they have the products they need in a timely fashion. For example, in addition to placing its orders earlier, Costco would charter three of its own container ships to transport goods between Asia and North America. Each ship will carry about 800 to 1,000 containers at one time, and the company plans to make approximately 10 deliveries over the course of 2022 (Manfredi, 2021).

"What are the Chinese strategies and alternative routes from China to Europe and the U.S.?" BRI connects Asia with different continents via sea and land, creating the "blue economic passages" for the benefit of Eurasian businesses and manufacturers:

1. The first "passage" running from China to India, Africa, and onto the Mediterranean and Europe.
2. The second passage connecting Australia and the Southern Pacific.
3. The third passage connecting China with Europe via the Arctic Ocean (Serafimov et al., 2021)
4. The fourth passage connecting China with Europe through Central Asia via rails.

For manufacturers in China and the rest of Asia, container ships remain the preferred mode of transport to bring their goods to Europe, the West and East Coast of the U.S. Companies searching for cheaper and faster routes to reach the world's largest consumer market find the Suez Canal an attractive alternative to its Panamanian counterpart. The Chinese have three major options when it comes to shipping their products to New York, and other cities on the U.S. East Coast by container ship:

1. The first option is to ship containers by sea to the U.S. West Coast, then transport them across the continent on roads or railways.
2. The second option is to ship them on container ships via the Panama Canal in Central America.
3. The third option is also ocean freight, which travels all the way to the U.S. East Coast through the Suez Canal in Egypt (Yu, 2015).

The first option is the quickest--typically requiring less than 20 days, while the second and third options both take around 30 days. However, the first option is also the most expensive because of today's backlog of cargo ships, the shortage of truck drivers, and high rail costs. The freight cost per 20-foot equivalent unit (TEU), roughly the volume of a standard shipping container, comes to about $4,000 (increased 5 times lately to more than $20,000). The second and third options are cheaper, at less than $3,000 each (increased 5 times lately to around $15,000). In the past, the first two options each controlled nearly half of the east coast shipping market. Today, the third option is used for 20% of such shipments. The advantage of shipping through the Suez is that it is cheaper than shipping through Panama Canal, and there is no ship size restriction in Suez Canal (Yu, 2015).

For shipments originating in Shenzhen or Hong Kong, the travel distance is around 20,000km regardless of whether the ship sails eastward or westward. However, shipping through Suez Canal has its disadvantages. From Asia, the shipping route passes through pirate-infested waters in the Straits of Malacca and off the coast of Somalia. Political instability in the Middle East and North Africa could also affect shipments. In addition, accidents, such as the canal blockage by *Ever Given* container ship in March 2021 and the recent oil tanker blockage do happen. Delivery time, cost, and the size of the ship that can be used are severe considerations of the Chinese and other Asian shipping companies (Daly, 2021).

OPPORTUNITIES AND CHALLENGES FOR COUNTRIES ASSOCIATED WITH BRI

The Belt and Road Initiative aims to achieve greater economic integration and development through better connectivity.

The BRI concept promotes connectivity as the leading enabler of a trade network consisting of a "Belt", i.e., overland transport connecting China to Europe through Central Asia; and a "Road", i.e., a maritime return route to southern Europe through the Suez Canal and back to Asia, with a stopover in East Africa (alternatively known as "Maritime Silk Road". The Mediterranean Basin is central in this network, being seen as the "hub-of-hubs, connecting Asia with Europe, Africa, and the Americas. The BRI is linked to China's "Made in China 2025" strategy whereby China should supersede the United States and Japan as an industrial high-tech manufacturer by 2025. It will require secure global supply chains, including ports, hence the BRI (Haralambides & Merk, 2020). BRI provides unique development opportunities, while Suez Canal provides the best supply chain route for China, Asia, the Middle East, Africa, and Europe.

"What are the BRI development opportunities and challenges in Egypt and other countries involved?" While discussing the status of the Belt and Road enterprise and innovativeness in developing international opportunities that are equal, balanced, and sustainable, we address the challenges and issues of the Belt and Road Initiative. The trillion-dollar Belt and Road Initiative is an expansive combination of investments in construction, transportation, communication, and energy networks across initially more than 65 countries in Eurasia, Oceania, and Africa. Its massive scale has raised some serious concerns over potential environmental and sustainability effects.

The U.N. 2030 Agenda for 17 Sustainable Development Goals are integrated and undividable to achieve sustainable economic growth, social justice, and a clean environment. Meanwhile, China has begun to develop and adopt its own national sustainability commitments that could be used across the whole of BRI. However, unless such guidelines are made mandatory overseas, Chinese developers and contractors may still be able to choose to follow the less strict local standards in the developing countries as they work on some Belt and Road projects. In the BRI construction and implementation process, there could be potential environmental and sustainability challenges. For example, a series of deep-water ports and cargo centers are planned for the coasts of the South China Sea and the Indian Ocean to increase trade capacity along regional shipping lanes at cities like Gwadar, Pakistan.

Balochistan is Pakistan’s largest, but least developed province. In 2015, China announced the China-Pakistan Economic Corridor (CPEC) project in Pakistan worth USD 46 billion, of which Balochistan is an integral part. It would link Pakistan’s southern Gwadar port in Balochistan on the Arabian Sea to China’s western Xinjiang region. It also includes plans to expand the Gwadar port, and create road, rail, and oil pipeline links to improve connectivity between China and the Middle East. However, Balochistan has been experiencing widespread protests of the CPEC recently. The protest leaders voiced their concerns over thousands of illegal fishing trawlers from abroad and other parts of Pakistan depleting marine resources, insufficient water and power supplies and a clampdown on informal trade across the border with Iran (Athens Bureau, 2022).

Besides environmental and sustainability challenges, the economic and political issues and social justice need to be addressed. China's massive "Belt and Road" global infrastructure funding strategy is deemed to base on a "secretive overseas development finance program that has saddled dozens of developing countries with nearly $400 billion worth of hidden debt", according to a study published by AidData, a research outfit at the Virginia-based College of William and Mary. Around 35% of the 13,000 projects financed by Chinese government loans have also featured "major implementation problems," including corruption scandals, environmental hazards, labor violations, and public protests (Malik et al, 2019). The example often used to describe China's BRI’s opaque finance program and environmental/sustainability issues is Colombo's controversial deal to lease Hambantota port to a Chinese-majority joint venture in 2017 after Sri Lanka could not repay its earlier loans.

Sri Lanka has now declared bankruptcy; it owes over $50 billion to international creditors and is unable to service existing debts given its essentially empty coffers of foreign currency. Sri Lankan Prime Minister Ranil Wickremesing attributed the crisis to a combination of the prior government's policy of reducing taxes and the economic financial consequences of the COVID-19 pandemic. He told TASS news agency that past policies deprived the budget of an estimated $40 billion, while the pandemic caused Sri Lanka to spend the rest of its reserves on emergency measures (Korybko, 2022). Between 2000 and 2020, China extended close to $12 billion in loans to the Sri Lankan government for major infrastructure projects including a cost port facility into President Rajapaksas' hometown of Hambantota (Tharoor, 2022). Loans from China accounted for 10 percent of Sri Lanka's total foreign debt in 2022. Japan accounted for 11 percent while the largest portion, reported between 30 percent and 50 percent, is from international sovereign bonds that have a higher interest rate and a shorter repayment period (Korybko, 2022). It is the Sri Lanka's mismanagement of the foreign loans and incompetence of local elites that caused the bankruptcy of its economy. Chinese loans are part of the Sri Lanka's foreign loan group and "hidden debt" controversies.

To get back on the right economic track, Sri Lanka will need to work out different financing and leasing options with Chinese government and require the support of the entire international community.

IMPLICATIONS/NOVEL CONTRIBUTIONS

The Belt and Road Initiative is sponsored and underwritten by the Chinese government. It benefits the Chinese government and foreign governments along the Belt and Road. Although it is a good development strategy, it has implications for complex implementation and environmental and sustainability issues in developing countries. Four Chinese state-owned banks lend money to Chinese state enterprises for the infrastructure projects of BRI. The Chinese government has never published detailed information about the size and terms of the Belt and Road loans (Jie & Wallace, 2021). The Belt and Road Initiative is facing challenges and questions from the developing nations and opposition from the democratic governments as well as disagreements among its domestic policy advisors.

China has considerably withdrawn the scope of its ambitions and investments abroad since its peak in 2015. Following the COVID-19 pandemic, Chinese state banks directed more support to projects at home, echoing the behavior of much of the rest of the world (Jie & Wallace, 2021). The future of the Belt and Road Initiative is considered uncertain and necessitates adjustments and changes in the BRI policy and implementation. Our analysis contributes to a realistic and fair assessment of BRI's development opportunities and challenges. It offers recommendations in terms of analyzing the shipping routes, global supply chain, and Suez Canal blockage. For China to carry on the future BRI projects, the Belt and Road Initiative must address environmental and sustainability issues and loan transparency. Private sectors and international organizations could be included to address the problems of global concern and collaboration.

CONCLUSION

The Belt and Road Initiative provides China with unique opportunities to connect Asia with Europe, the Middle East, Africa, and the America, and develop land and maritime routes/roads based on the Silk Road and New Silk Road. Suez Canal is one of the best and most efficient supply chain channels to transport goods from Asia to Europe and the U.S. East Coast. "Belt and Road Initiative" and "Egypt Vision 2030" are two major frameworks that China and Egypt use to synergize their collaborations in economic development projects along Belt and Road and Suez Canal. The significance and impact of our research are reflected in the publication of our academic research paper and presentation at international and regional conferences, especially at the 13th International Conference on Education and Educators as Agents for Change in Fez, Morocco, on June 1-2, 2022, co-sponsored by Bridgewater State University.

The topic of Silk Road and Belt and Road Initiative has always been an interest of Bridgewater State University and our community. On April 6, 2017, Asian Studies Program and MENA Studies Program jointly organized the 1st BSU International Conference, "Revisiting the Silk Road Conference: Economic, Cultural, and Social Connections to Global Development, " with six BSU faculty and two student presenters. A visiting scholar from Harvard University was invited as a keynote speaker. More than 200 faculties, librarians, students, and staff attended the conference. On April 19, 2018, Asian Studies and MENA Studies co-sponsored the 2nd BSU International Conference, "Rethinking of the Silk Road: China's Belt and Road Initiative and Emerging Asian and Middle East Economic Relations and Development" with four BSU faculty presenters, one outside speaker, and three student presenters. Counselor of Science and Technology of Consulate General of China in New York was invited as a keynote speaker. More than 70 faculties and students attended the conference. Despite the Covid-19 pandemic and omicron variant situation, the 3rd BSU International Conference/Forum, "Belt and Road Initiative: Development opportunities and Challenges" was successfully held in person on April 7, 2022. Diplomates, leading scholars, faculty, and student panelists made informative and creative presentations from global and diverse perspectives. The authors will continue to focus their research on Silk Road and New Silk Road and assess the Belt and Road Initiative, Suez Canal, and China's port/canal diplomacy.

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