

Assessing the Economic and Infrastructural Benefits of China's Belt and Road Initiative to African Countries.

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ABSTRACT:- In the past twenty years, China has made notable strides in developing a significant economic presence. The economic investment package offered is quite profitable, and the flexibility of this package has led to its significant presence throughout many African countries. The political strategy is centred around the implementation of significant and ambitious development initiatives along the Belt and Road. The initiative known as the Belt and Road Initiative (BRI) presents a seemingly tremendous opening for African nations. The focus of this brief revolves around the BRI benefits and its implications. More specifically, it analyzes the nature of the BRI in the African continent. When examining the impact of hosting major events, it is important to consider both the advantages and disadvantages for the host countries involved. In addition, the success of BRI projects in Africa will depend on factors such as transparency, sustainability, and the involvement of local communities. Effective policymaking focused on practical effort and follow-up on implementation is imperative for African governments to ensure that they derive maximum benefit from BRI projects.

Keywords: Belt and Road Initiative; procurement; financing; infrastructural benefits; Five Connectivities; Africa-China

I. INTRODUCTION

China's involvement in the infrastructure sector began in the 1960's, and it has since become a major player on the continent. China-Africa trade has increased from \$1 billion in 1980 to \$128 billion in 2016, and since 2000, China has provided a cumulative loan of US\$143 billion in Africa, half of which in the past four years alone. This makes China Africa's largest bilateral creditor. In 2018, at the Forum for China-Africa cooperation in Beijing, China offered Africa \$60 billion in development financing by 2021. Generally, financing from Western countries or institutions is subject to stringent conditions, which can be a source of hardship for poorer African countries. However, China's financing strategy, which combines grants, assistance, and loans at either free or low interest rates, with a generous rate of return, particularly on infrastructure projects, is attractive to African countries. Furthermore, while the US and European Union have restricted their investments in Africa due to financial crises, China has remained committed to investing more. Furthermore, China has adopted a pragmatic approach, rather than a value-driven one, when dealing with political regimes across the continent, in contrast to Western countries, which prefer to deal with transparent and accountable democracies. Chinese involvement in Africa dates back a long time (NDIAYE, 2016) China has always been the one to start these bilateral talks, and that is still the case today. Chinese African cooperation has recently become the focus of intensive research due to its significant increase ((Alden, 2018) As China has not taken sides, it has been able to avoid becoming a target of competing local factions. China has demonstrated its commitment to peace and security in Africa, with its participation in five United Nations peacekeeping missions and its financial contribution to AMISOM and IGAD South Sudan. Furthermore, it has a track record of rapid and successful economic growth, providing an attractive model for African governments to emulate. Furthermore, China has invested heavily in infrastructure, industrial, and connectivity projects, which are essential for governance in Africa and provide rapid delivery, broad visibility of progress, and active governance for the local population, as opposed to more modest and less visible projects such as those in the areas of training, education, and healthcare. As part of the BRI, China has invested in 52 of Africa's 54 countries on a bilateral basis and is expected to enter the remaining 53 markets in Sao Tome and Principe. China's official statistics indicate that 49 out of 54 countries, or more than 90 percent, have already signed Memoranda of Understanding (MoUs). Of these, 22 are in West Africa, while the remaining 50 percent are in East Africa, North Africa, and Southern Africa. Additionally, the African Union has signed a MoU on BRI cooperation with China, which is not legally binding, but which formalises Chinese investments in the country with the approval of the local government. This facilitates the

investment process for Chinese companies in these countries. However, there are still five African countries that have not signed an MoU or expressed support to China. Despite this, China has continued to expand its presence in these countries, most recently investing in the Koka gold mine owned by the President of Benin and French giant Bolloré. China has signed agreements with Mali for a total of USD 11 billion to fund two railway projects to connect the landlocked nation to its coast. In May 2017, Sao Tome and Principe officially changed their allegiances from Taiwan to China, and on April 1, 2019, an agreement was reached to expedite the implementation of the projects to be funded by China, which includes direct support for the 2019 general budget. It is anticipated that the increased Chinese investment will gradually lead to the signing of Memoranda of Understanding or formal declarations of support from some of the countries in the future.

II. BACKGROUND

Overreaching trends

FIRST - There are five key developments in China's BRI projects in Africa:

1. Ports and port areas along Africa's coast from the Gulf of Aden to the Suez Canal toward the Mediterranean Sea. China claims that of the 49 countries that have signed MoUs or officially expressed support for its BRI, 34 (almost 70 percent) are along the coast of Africa on the West coast, on the North and East coast, and 2 on the South coast. These ports include:

Jibouti Port, Djibouti; Port Sudan (Sudan); Port Said (Tewfik) in Egypt; Port Ain Sokhna in Egypt; Zarzis Port, Zarzis, in Tunisia; and El Hamdania port, in Algeria, where the People's Liberation Army (PLAN) Navy has established its first overseas military base in 2017.

To serve its strategic interests, China could leverage its influence over these ports for economic (raw materials, finished goods, and labour) and military (monitoring and blockade of overseas and deep-seas maritime traffic) purposes in the future.

Second - China is using its connectivity projects (20 percent of all its projects in Africa including rail and road lines), to link its industrial (10 percent of all its projects including minerals processing) and energy projects (15 percent of all its projects including oil and renewables) in the hinterland of Africa to the infrastructure (nearly 45 percent of all its projects including 13 ports) projects along the African coastline. Together, these four sectors make up nearly 90 percent of its major projects in the 49 countries. For instance, an oil refinery in the north of Sudan is located close to the railway line connecting Port Sudan and Dakar Port (Senegal). Gabes, a hub for petrochemical and phosphate transformation industries in Tunisia, has been connected by a railway line to the Zarzis Port. Belinga Iron Ore is located close to the railway line connecting hinterland Gabon to Santa Clara port in the coastline. An industrial park in Ethiopia is located near the Addis Ababa-Adama Highway, which connects with the Addis-Djibouti railway line connected to the Djibouti port. This enables China to use the maritime route to transport raw materials such as Phosphate, copper, cobalt, gold, iron ore, cocoa, bauxite, coal, lithium, steel, granite and marble back to the mainland, and finished goods and Chinese labour to Africa.

Third, China's claim that its investments are tailored to local needs, in line with its leadership's long-standing "win-win" model of cooperation, is only partially correct. According to the African Development Bank (ADB), Africa's infrastructure deficit is estimated to be US\$ 93.15 billion per year by 2021. While most China's investments in Africa are in infrastructure, it also benefits Chinese companies that are struggling with overcapacity in key industries like steel, iron, and cement. Furthermore, China's projects are executed in consultation with local governments, but the bidding processes for these projects are not transparent and local officials are often bribed. As a result, the local population benefits only occasionally (e.g., through connectivity projects, employment in industrial and infrastructure projects), and only after the projects are finished. Many of these projects (especially energy and industrial projects) require access to essential natural resources (Yu, Li, Yang, & Wei, 2020).

Connectivity projects require residents to be near these resources, so they often have to move, which is a source of satisfaction for the local population of localities. Connectivity projects, mainly because of their geographical scope, always lead to environmental changes or encroachment on existing human habitations (resettlement). So far, only about three percent of Chinese projects in healthcare and education benefit the local population directly. China has implemented such projects only in 3 African countries: Seychelles; Ghana; and Comoros

Fourth, China has only been successful in building transnational projects in countries with either a deficit or a lack of strong governance across the continent. For example, it appears to have made substantial progress on the cross-country railway project between the countries of Mali and Guinea, the Chad and Cameroon oil pipeline, the Chad-Niger railway line, the Central African Republic-Chad water diversion project, and the Transaqua project. On the other hand, China has not been as successful on its BRI projects in countries where regional pressures backed by powerful regimes have restricted transnational projects, such as in West Asia, where Qatar and its neighbours face tensions, Israel and its neighbours, Saudi Arabia and Iran, and the construction of the

Puntland Airport project in Somalia. For example, of all its projects in Africa, China has only entered into a trade agreement of US\$14 billion with Spain for investments in the Democratic Republic of Congo.

The Belt and Road Initiative is an ambitious and multi-faceted project with the goal of fostering economic development, regional integration, and cultural exchange. It has attracted both support and criticism on the global stage, with concerns about its geopolitical implications, environmental impact, and debt sustainability in some participating countries. Nonetheless, it represents a significant part of China's foreign policy and economic strategy, with numerous projects and partnerships established in the years since its announcement in 2013.

The Belt and Road Initiative (BRI), also known as the One Belt, One Road (OBOR) initiative, is a massive infrastructure and economic development project initiated by the Chinese government in 2013. It aims to strengthen trade and economic ties between China and other countries by improving infrastructure and connectivity. While the BRI was initially focused on Asia and Europe, it has expanded to include

2.1 Africa as a key component of its strategy.

In Africa, the Belt and Road Initiative has had a significant impact in various ways:

✓ **Infrastructure Development:** One of the primary objectives of the BRI in Africa is to enhance infrastructure development. China has been involved in building roads, railways, ports, and airports in many African countries, improving transportation networks and connectivity.

✓ **Economic Development:** The BRI seeks to promote economic development and trade by facilitating the movement of goods and people. African countries have welcomed Chinese investment in infrastructure as it can boost economic growth and create jobs.

✓ **Energy Projects:** China has invested in numerous energy projects in Africa, including the construction of power plants and the development of renewable energy sources. This has helped address Africa's energy deficits and supported sustainable development.

✓ **Trade and Investment:** The BRI promotes trade and investment between China and African nations. Chinese companies have invested in various sectors in Africa, including manufacturing, agriculture, and telecommunications.

✓ **Challenges and Concerns:** While the BRI has brought opportunities to Africa, it has also raised concerns. Some critics argue that it can lead to debt dependency on China, as African nations take on large loans to finance infrastructure projects. There are also concerns about environmental sustainability and the social impact of some projects.

✓ **Geopolitical Implications:** The BRI has geopolitical implications in Africa. It can influence the balance of power and alliances on the continent, as China expands its presence and influence through economic partnerships.

However, it's important to note that the impact and reception of the Belt and Road Initiative in Africa vary from country to country. Some African nations have embraced Chinese investment and infrastructure development, while others have been more cautious due to concerns about debt and sovereignty. Overall, the BRI has become an integral part of China's engagement with Africa, affecting the continent's economic and geopolitical landscape.

2.2 Impact on Participating Countries' Economies:

Infrastructure Development: BRI has funded and facilitated numerous infrastructure projects in participating countries, including roads, railways, ports, and energy facilities. These projects have improved connectivity and reduced transportation costs, potentially boosting trade and economic growth.

✓ **Economic Growth:** BRI investments have contributed to economic growth in many participating countries. Improved infrastructure and connectivity have attracted foreign investment, boosted trade, and created jobs. For example, the construction of new ports and transportation networks has enhanced the efficiency of logistics and trade routes.

✓ **Debt Concerns:** While BRI investments have brought economic benefits, some countries have raised concerns about the level of debt associated with these projects. High debt burdens can pose challenges to participating countries' fiscal sustainability if they struggle with loan repayment.

✓ **Diverse Impact:** The impact of the BRI varies from country to country. Some nations have experienced significant economic benefits, while others have faced challenges related to debt and project quality.

a. Infrastructure Projects Funded by BRI:

52 African nations are listed as having ratified an agreement or understanding with the One Belt One Road plan on China's official website for the Belt and Road as of August 2022. (Alden, 2018)[3] Due to its potential for trains, roads, and energy, Africa is regarded as a crucial component of China's One Belt One Road initiatives. A lot of African nations also require improved infrastructure, which is still viewed as one of the biggest obstacles to the region's development. Only 43% of Africans had access to electricity in 2020, and only 48% had access to

paved roads. Additionally, only 6% of agricultural land was irrigated. Given its access to ports and demand for trains and roads, China started many of its investment activities in the East African region. As a result, China's investments in the area have grown dramatically since the year 2000, with total Chinese government and corporate spending expected to reach US\$23 billion in 2020. China is currently the largest donor to African infrastructure projects, having funded around a fifth of all projects and building about a third of them. (IMF, 2023)[10] According to a McKinsey & Company analysis, over 10,000 Chinese-owned companies—roughly 90% of which are privately held—operate in Africa. However, efforts have since spread to various projects across the continent. Both south and north Africa need significant road infrastructure projects, such as the Cherchell Ring Expressway Project in Algeria and the Maputo-Katembe Bridge in Mozambique. (NDIAYE, 2016)[7] Transport and energy are often the emphasis of Belt and Road projects in Africa, but there are variations within these sectors, including as international rail and expressways, seaports, hydropower to carbon-based electricity, water supply and sanitation, and many more initiatives. BRI has funded a wide range of infrastructure projects, including the construction of transportation networks, energy pipelines, and telecommunications systems. Examples of notable projects include the China-Pakistan Economic Corridor (CPEC), the Port of Gwadar in Pakistan, the Mombasa-Nairobi Standard Gauge Railway in Kenya, and the Jakarta-Bandung High-Speed Rail in Indonesia.

b. Impact on China's Global Influence:

BRI has expanded China's global influence by positioning it as a key player in infrastructure development and trade facilitation. It has allowed China to exert significant economic and political influence in participating countries.

✓ Diplomatic and Economic Ties: Through BRI, China has strengthened diplomatic and economic ties with participating nations, forging partnerships and cooperation agreements. China's leadership in funding and executing these projects has increased its global standing.

✓ Geopolitical Considerations: The BRI has raised concerns among some countries and international organizations about China's growing influence and potential strategic implications. It has led to discussions about the balance of power in the region and the world.

✓ Soft Power and Cultural Exchange: BRI includes elements of cultural exchange and people-to-people bonds, enhancing China's soft power and promoting its cultural and educational influence in participating countries.

In summary, the Belt and Road Initiative has had a significant impact on the economies of participating countries, contributing to infrastructure development and economic growth. However, it has also raised concerns related to debt sustainability and China's growing global influence, making it a topic of ongoing debate and analysis in international relations.

III. METHODOLOGY

This study's methodology was qualitative with a case study bias. To fully comprehend a specific/particular instance, such as an organization, a program, or an event, case study research entails in-depth inquiry and analysis. This is done to understand the case's distinctive qualities and intricacies. Case study research, according to (Yin, 2017), is an empirical investigation that looks at a current phenomenon in its actual environment, particularly the boundaries between the phenomenon and its environment. Case study research has been regarded as a helpful research approach by academics like (Yin, 2017)[16,17,18] when the research issue is wide and extremely complex, the context under inquiry is crucial, and there isn't much theory available in the field. Therefore, case study research covers a variety of methodologies, including single, instances that are numerous, descriptive, exploratory, and illuminating (Kim, 2022) (IMF, 2023)[16,19,20]. The BRI projects' experiences in five African nations—Uganda, Kenya, Egypt, Djibouti, and Mozambique—were compared using multiple case studies in this paper, even though it took a variety of ways to do so. The five nations were chosen for their early support of the Initiative and their advantageous locations on the continent, which give each nation a distinct geographical advantage. For instance, Djibouti serves as a gateway to the Red Sea and the Indian Ocean, while Egypt is strategically situated at the meeting point of Africa, Asia, and Europe. While Mozambique is situated in Southern Africa, Uganda and Kenya are in East Africa, which serves as a major transportation Center for the region. Researchers used a variety of data sources, including documents and archival records, especially the Policies, Projects, Initiatives and Strategies (PPIS) records, which were gathered through web-based/online platforms, to answer the study questions. The PPIS refers to the many strategies, initiatives, and initiatives that are put into place by governments or other institutions to accomplish goals. Government reports, organizational records, and program evaluations were all included in the PPIS data. The PPIS data source offers extensive data that are trustworthy, adaptable, and support longitudinal study. It is widely accessible and available. Other sources made use of first-hand observations as well as secondary data from surveys conducted by recognized organizations and published referred periodicals. To support the

conclusions and provide a better knowledge of the phenomenon, the data obtained were then converged. Scholars

Table 3.1 The Matrix for BRI Benefits against each the 5 pillars to participating countries.

Pillars	Benefits
1. Policy coordination connectivity	<ul style="list-style-type: none"> • Strengthened exchanges and mutual learning between different civilizations, which ultimately leads to world peace and development. • Coordinated countries economic development strategies and policies without interference; and • Reduced the costs of doing business across borders
2. Facilities/infrastructure connectivity	<ul style="list-style-type: none"> • Led to the construction and improvement of infrastructure in Africa, including roads, railways, ports, and airports. • Saves transportation time and cost. • Improved connectivity within Africa and between Africa and other regions, making it easier for goods and people to move across borders. • Facilitated technology transfer between countries in areas such as telecommunications, energy, railways and ports among others. • Created the right conditions for China to build a high technology economy
3. Unimpeded trade connectivity	<ul style="list-style-type: none"> • Improved connectivity has led to increased trade between African countries and other regions. • Led to economic growth and development as well as increased access to goods and services for consumers. • Created thousands of jobs, and hence increased family income and revenue for the government. • Expanded trade and increased foreign direct investment
4. People-to-people connectivity	<ul style="list-style-type: none"> • Led to increased people-to-people connectivity, through initiatives such as student exchanges, cultural exchanges, and tourism. • Promoted science, education, culture and health care. • Promoted greater understanding and cooperation between countries, and has helped to build stronger relationships between African countries and other regions
5. Financial integration	<ul style="list-style-type: none"> • Led to increased financial connectivity between African countries and other regions, through initiatives such as the establishment of the Asian Infrastructure Investment Bank (AIIB) and the New Development Bank (NDB). • Provided countries with access to new sources of financing for their infrastructure projects, trade and training

By author

In July 2018, President Xi Jinping visited Senegal, Rwanda, South Africa, and Mauritius. His visit resulted in the conclusion of further agreements which were partly related to the BRI; 15 bilateral cooperation agreements with Rwanda and an agreement for future Belt and Road Cooperation with Senegal were signed, the first time a country in western Africa had officially joined the Initiative. Foreign Ministry spokesperson (GengShuang 2021) stated: “Lying in the most western part of the African continent, it is a key extension of the Belt and Road” (Foreign Ministry, 2018). Senegal is becoming China’s bridgehead in western Africa. It has already been decided that the 8th Forum on China-Africa Cooperation (FOCAC) Ministerial Conference will be held in Senegal in 2021 (Beijing Declaration, 2018). It also supports the thesis that the BRI might develop further. China gained another success in Africa when on 3rd September 2018, China and Mauritius, in the presence of Premier Li Keqiang and Mauritian Prime Minister PravindJugnauth, finalised negotiations, which had begun in December 2017, on a bilateral free-trade agreement. When it is signed, the deal will be the first of its kind between China and an African partner. China is the largest exporter to Mauritius and the second largest foreign investor (after France). Mauritius can hardly be isolated from the BRI due to its geographical location but has a long tradition of good relations and trade with India. Therefore, it would prefer not to participate in the BRI officially, and not to take an unambiguous position backing either China or India, which strongly opposes the BRI. On 1st January 2018, a new Addis Ababa–Djibouti railway line began commercial operations. Chinese banks loaned US\$ 3.3 billion for its construction, making it the largest of China’s projects in Africa in terms of financial engagement. In the future, this railway line may be extended to reach South Sudan. Ethiopia’s favourable attitude to the Chinese development model is sometimes attributed to the socialist path taken by

Ethiopia in the past (KiedyAfryka, 2018). Several countries in Sub-Saharan Africa tried to implement their own versions of socialism in the past, under the common name of ‘African socialism.’ It is more justifiable to conclude that the Chinese model offers a development scenario which is effective and at the same alternative to western model, which turned out to be insufficiently effective in Sub-Saharan Africa. The most frequent model implemented in the past was the centrally planned economy and industrialisation model of the USSR. At present, this has been replaced by the Chinese model, which has been spectacularly successful in curbing extreme poverty in China. Ethiopia is one of the biggest beneficiaries of Chinese development aid granted to Africa, which is another reason for Ethiopia’s friendly attitude to China. China has considerably increased the level of its Official Development Assistance (ODA). The list of the ten biggest beneficiaries of ODA from the PRC features seven African states which collectively received US\$ 23.3 billion in ODA from China between 2000 and 2014 (AidData): 1. Cuba 6.7, 2. Ivory Coast 4.0, 3. Ethiopia 3.7, 4. Zimbabwe 3.6, 5. Cameroon 3.4, 6. Nigeria 3.1, 7. Tanzania 3.0, 8. Cambodia 3.0, 9. Sri Lanka 2.8, 10. Ghana 2.5. The same holds true for the number of aid projects. Seven out of ten states where the biggest number of Chinese development projects have been launched are in Africa (AidData): 1. Cambodia 168 projects, 2. Pakistan 121 projects, 3. Zimbabwe 120 projects, 4. Angola 110 projects, 5. Sudan 108 projects, 6. Tanzania 101 projects, 7. Ghana 95 projects, 8. Kenya 89 projects, 9. Ethiopia 88 projects, 10. Sri Lanka 86 projects. China’s development aid is a part of its foreign policy. A new China International Development Cooperation Agency (CIDCA) was established in March 2018. This reorganisation of administration may be related to the BRI. In April 2018, the first director of CIDCA, Wang Xiaotao, was appointed. He has been involved in promoting the BRI in China and has negotiated with countries such as India, Laos, Pakistan, Serbia, Singapore, and Thailand on transport initiatives linked to the Initiative. In the opinion of observers, CIDCA, “which will take over foreign-aid work currently overseen by the foreign affairs and commerce ministries, is likely to focus on advancing the BRI, and to more fully leverage foreign assistance as a component of diplomacy” (Kalathil, 2018: 54). Whereas China rejects the concept of political conditionality in development aid, which enjoys very good reception in many African countries and is a challenge to many Western donors (Koch, 2015: 97), this is not to say that China has abandoned policy objectives altogether. China is Sub-Saharan Africa’s largest trade partner and the largest source of infrastructural investment. The increase in the importance of trade exchange with China for Africa has increased gradually

Table 3.2 of countries of the Belt and Road Initiative (BRI)

The following table provides an overview of the countries of the Belt and Road Initiative (BRI). The field income group is according to the World Bank categorization. Countries without a date of MoU denotes that we could not find independent information about the signature of a Memorandum of Understanding to become an official “country of the Belt and Road Initiative (BRI).

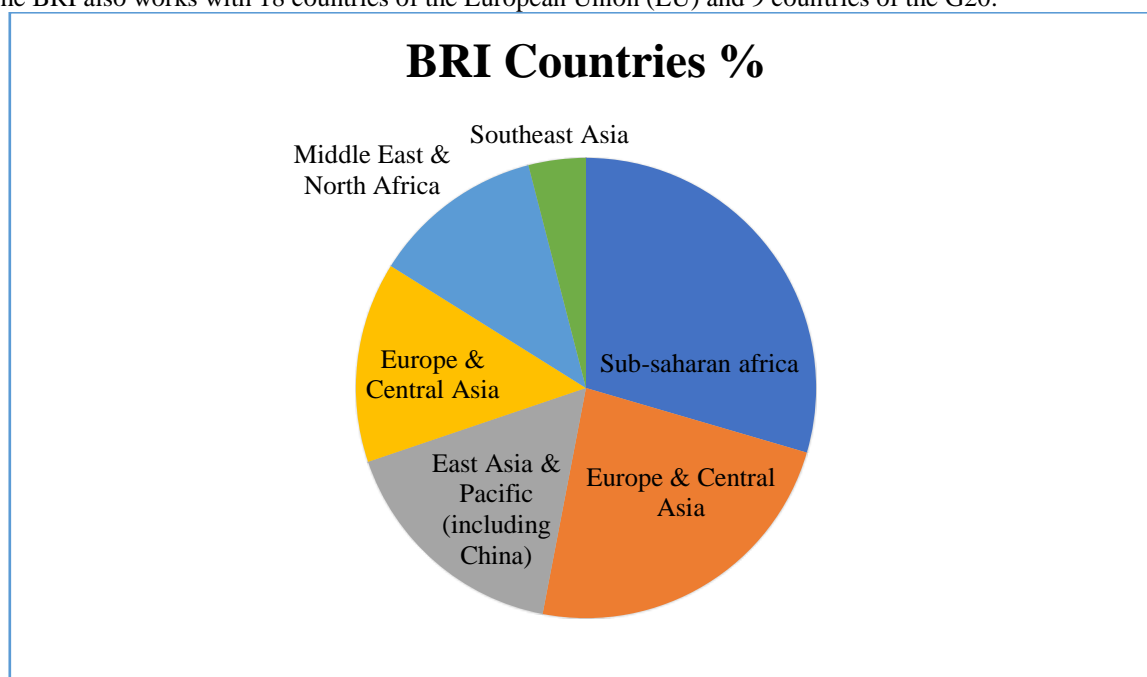
Country	Country Code	Region	Income Group	Likely date of MoU
Angola	AGO	Sub-Saharan Africa	Lower middle income	September 1, 2018
Botswana	BWA	Sub-Saharan Africa	Upper middle income	January 7, 2021
Burundi	BDI	Sub-Saharan Africa	Low income	September 1, 2018
Cameroon	CMR	Sub-Saharan Africa	Lower middle income	August 1, 2015
Central African Republic	CAF	Sub-Saharan Africa	Low income	November 1, 2021
Chad	TCD	Sub-Saharan Africa	Low income	September 1, 2018
Congo, Dem. Rep	COD	Sub-Saharan Africa	Low income	January 6, 2021
Congo, Rep.	COD	Sub-Saharan Africa	Low income	
Ghana	GHA	Sub-Saharan Africa	Lower middle income	September 1, 2018
Guinea	GIN	Sub-Saharan Africa	Lower middle income	September 1, 2018
Guinea-Bissau	GNB	Sub-Saharan Africa	Lower middle income	November 24, 2021
Kenya	KEN	Sub-Saharan Africa	Lower middle	June 1, 2017

			income	
Niger	NER	Sub-Saharan Africa	Low income	
Nigeria	NGR	Sub-Saharan Africa	Lower middle income	September 1, 2018
Uganda	UGA	Sub-Saharan Africa	Low income	September 1, 2018
Zambia	ZMB	Sub-Saharan Africa	Lower middle income	September 1, 2018
Zimbabwe	ZWE	Sub-Saharan Africa	Low income	September 1, 2018

Chart 3.3 The countries of the Belt and Road Initiative (BRI) are spread across all continents:

- 44 countries are in Sub-Saharan Africa
- 35 BRI countries are in Europe & Central Asia
- 25 BRI countries are in East Asia & Pacific (including China)
- 21 BRI countries are in Europe & Central Asia
- 18 BRI countries in Middle East & North Africa
- 6 countries are in Southeast Asia

The BRI also works with 18 countries of the European Union (EU) and 9 countries of the G20.

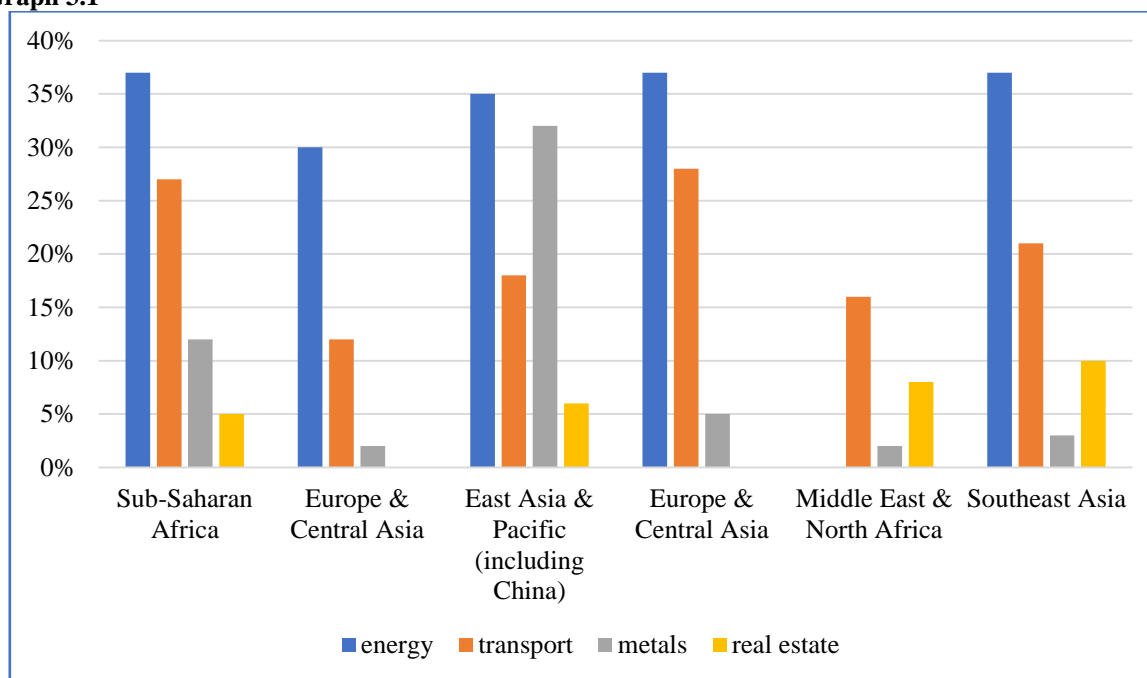


Industries

The most important industries that receive BRI engagement are

- Energy (about 37%)
- Transport (about 27%)
- Metals (about 12%)
- Real estate (about 5%).

Graph 3.1



Regions

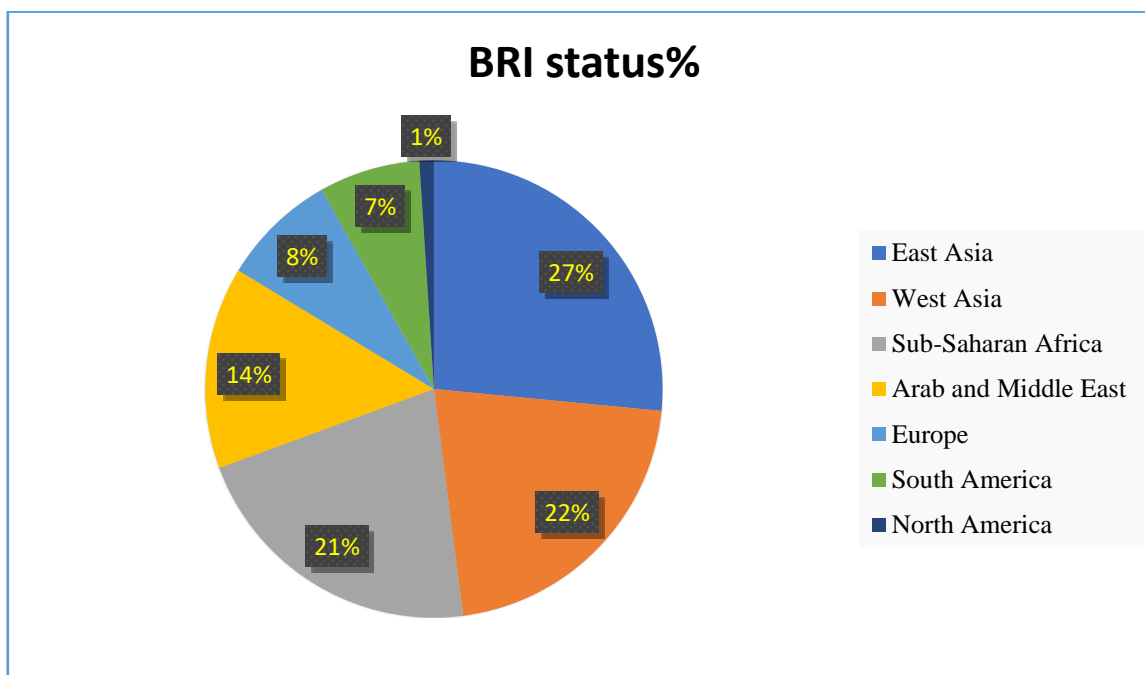
The regions where countries with BRI status receive engagement between 2013 and 2020 are:

- East Asia with 26%
- West Asia with 21%
- Sub-Saharan Africa with 21%
- Arab and Middle East with 14%
- Europe with 8%
- South America with 7%
- North America with 1%

The trading blocs considered are: •The Association of Southeast Asian Nations (ASEAN) and China Free Trade Area (ASEAN+1): Brunei-Darussalam, Cambodia, Indonesia, Lao People’s Democratic Republic, Malaysia, Myanmar, Philippines, Singapore, Thailand, Viet Nam and China. • The Bangkok Agreement (BA): Bangladesh, China, Lao People’s Democratic Republic, India, Korea, and Sri Lanka. • The Economic Co-operation Organisation (ECO): Afghanistan, Azerbaijan, Iran, Kazakhstan, Kyrgyz Republic, Pakistan, Tajikistan, Turkey, Turkmenistan, and Uzbekistan. • The South Asian Association of Regional Co-operation (SAARC): Bangladesh, India, Pakistan, Maldives, Nepal and Sri Lanka. • The European Union (EU): 28 members of the union. • The North American Free Trade Association (NAFTA): the United States, Canada and Mexico

In summary, the most important results are that both China and the United States are very important partners to have in free trade zones. While free trade zones that do not involve these countries are less positive, the important point to note is that China’s BRI is precisely focused on changing this via connectivity investment. These results are suggestive only, but it appears that connectivity is stronger in some parts of the world than others, and it makes a lot of sense to invest in infrastructure where it is lacking to strengthen trade linkages for these countries.

Regions the regions where countries with BRI status receive engagement between 2013 and 2020



IV. DISCUSSION AND FINDINGS

CARI collects and reports data on Chinese lending to more than 50 African countries, following “a rigorous set of steps in triangulating and cross-checking reports of loans, emphasizing official websites of central banks and ministries of finance, Chinese contractors, and our own personal contacts in China and in African countries.”⁶ Its researchers also explain that “the desk work was supplemented by in-country interviews and meetings with Chinese and African officials.” Since 2012, Chinese lending has averaged more than \$15 billion per year, so this is a significant source of infrastructure financing. This lending ramped up quickly after the global financial crisis in 2008-09, but there is no trend since 2012 — there is some variation from year to year, but no trend around the \$15 billion annual average. In my own 2016 research, I found that the Chinese financing in Africa is about one-third of the total external finance supporting infrastructure investment on the continent.⁷ The 10 largest borrowers between 2015 and 2017 are listed in descending order in Table 1. It is a diverse group of countries, including Nigeria, the Republic of Congo, and Cameroon in the west; Angola, South Africa, and Zambia in the south; Kenya, Uganda, and Ethiopia in the east; and Egypt in North Africa. The CARI database provides detail on some, but not all, projects. Some of the largest projects in recent years include: • Ethiopia borrowed \$1.3 billion for the Addis Ababa-Djibouti Railway; the terms are 15 years with 6 years’ grace period at an interest rate of Libor (London Interbank Offered Rate) + 3%; • Uganda borrowed \$1.4 billion for the Karuma hydropower station; the terms are 20 years with 5 years’ grace period and a fixed 2% interest rate; • Uganda borrowed \$350 million for the EntebbeKampala Expressway; the terms are 20 years with 7 years’ grace period and a fixed 2% interest rate; • Kenya borrowed \$2 billion for rail lines; the terms are 15 years with 5 years’ grace period and an interest rate of LIBOR + 3.6%; • Cameroon borrowed \$500 million for the Memve’ele hydropower project; the terms are 16 years with 6 years’ grace period and an interest rate of Euribor + 3.1%;⁹ and • Nigeria borrowed \$500 million for Abuja-Masaka light rail; the terms are 20 years with 7 years’ grace period and a fixed interest rate of 2.5%. Most of the Chinese lending finances projects in transport and power. The terms are not as generous as the concessional lending from the World Bank, but that financing is severely limited. The terms on the Chinese loans are attractive compared to other alternatives. The fixed 2% loans are quite concessional. A rate of Euribor (Euro Interbank Offered Rate) or Libor plus a spread of around 3% is, strictly speaking, commercial in that the Chinese banks can make a profit on such loans, assuming that they are repaid. But in general, other commercial lenders would not lend to developing countries at such rates. One could say that the Chinese banks are more risk taking, or at least that they under-price risk. Now, global interest rates are low, and Libor is around 2%. Hence, Libor + 3.6% would make for a total interest rate of 5.6%, which is attractive for a country like Kenya. However, if global interest rates return to their historical average around 5-6%, then these flexible rate loans would be far more expensive, with total rates around 9-10%. Servicing costs would then obviously be higher, and risks of debt distress greater. Aside from the fact that there is only a limited amount of highly concessional Western aid available, there is also the issue that doing big infrastructure projects with an institution like the World Bank is time-consuming and bureaucratic because of the environmental and social regulations.¹⁰ Many developing countries prefer to use Western finance for things like budget support,

health, and education, while turning to Chinese finance for big projects in transport and power. There is no reason why developing countries should have to choose between these alternative sources of finance (keeping in mind that there are limits to the overall amount of debt that countries can take on).

V. CHALLENGES OF THE BRI IMPLEMENTATIONS

Below, we will discuss the main problems found in the implementation of the BRI project in the selected countries that were chosen.

There is not much participation from local people in BRI projects. Only a few government representatives, Chinese companies, and workers are involved, and not many locals get to participate. Unfortunately, when local communities and leaders are not involved in making decisions, it can cause conflicts overcompensation and resettlement, as we have seen with the delayed construction of the SGR in Uganda. Farmers in Mpigi district had to organize a demonstration to fight for their rights to the land. This happened because they were not included in the process of receiving compensation for their land. The lack of participation from stakeholders in BRI projects has caused people to oppose and delay projects in Uganda and Djibouti. The lack of involving and consulting with people who are affected by BRI projects, such as local communities and the environment, caused problems like conflicts, delays, and higher costs, according to (Kim, 2022).

Expensive payments: The building of BRI projects like the SGR in Kenya, Entebbe Express Highway, SGR in Uganda, and Ethiopia's Addis Ababa-Djibouti Railway took longer because there were disagreements about paying landowners along the railway and road. Some people who own land said they were not given enough money for their land, and they want more money. The New Administrative Capital project in Egypt had to pay a lot of money to people as compensation. This caused the price of land in that area to go up. This information is backed up by a study on the Laos-China Railway project. The study found that when affected communities were given a lot of money for their land, it made the price of land go up. This put more pressure on the country's economy. When communities are impacted by BRI projects, they need to be given compensation. However, it's crucial to make sure that the compensation is fair and can continue for a long time without causing more economic problems.

Environmental hazards occur when large construction projects like ports, oil pipelines, railways, highways, and airports are built. These projects can cause major problems for the environment, like cutting down forests, causing air and water pollution, destroying soil, and making animals and plants disappear. Some research has found that these projects have big effects on the environment. So, it is very important to carefully evaluate and reduce these possible effects to make sure that building things like roads and buildings is good for the environment and can last a long time.

More countries like Kenya, Mozambique, Egypt, Uganda, and Djibouti are borrowing money from China because they don't have enough resources, especially money, to develop on their own. China is providing financial help through the BRI. This action has many advantages [61]. But the writer warns that even though the BRI could have many advantages, it also has a big risk of accumulating debt that needs to be dealt with. Based on Gallanger's research, the BRI has caused the countries receiving the funds to have much higher levels of debt. This shows that there is a need for better ways to manage debt to tackle this problem. The outcome supports Kupfer's idea of including debt relief in China's Belt and Road Initiative (BRI) to help recipient countries deal with their increasing debt problems. Not having a formal BRI Secretariat can make it harder to evaluate the risks and sustainability of BRI-related debt. This has worried some countries and international organizations. Moreover, it can also cause corruption and poor management in BRI projects. It also makes it hard to coordinate and keep track of projects when there are many different organizations and countries involved, and this can make the situation even worse. The COVID-19 pandemic has caused big problems for BRI projects. Travel restrictions, lockdowns, and problems with delivering goods have caused delays in carrying out projects. For example, it will take at least two more years to finish building the New Administrative Capital City and develop the Suez Canal Economic Zone. These delays are because of problems like not being able to bring in workers and materials from China because of travel bans related to COVID-19. These things have a big impact on how long a project takes and how much it costs. Likewise, the pandemic has caused a decrease in trade and investment, which affects the money available for BRI projects.

VI. LIMITATION AND AREAS FOR FUTURE RESEARCH

This study recognizes that it has some limitations. These include the fact that it only focuses on a certain area of study, it doesn't have access to enough data from different countries to compare and evaluate the impact of projects, and it has limitations in the sources it used for its analysis. The study mainly looked at existing documents instead of doing interviews and focus groups. In the future, researchers can ask people questions in interviews, have group discussions, and distribute surveys to learn more and compare their findings. According to the literature, many studies on BRI projects in Africa have been done by researchers or organizations from other countries. Basically, more research is needed on different aspects of the Belt and Road

Initiative (BRI) projects in Africa. This research should consider the thoughts and opinions of African policymakers, business leaders, and citizens. It should also focus on how these projects affect women and vulnerable populations, as well as the environmental impacts. Additionally, the research should study governance and accountability issues, and how the BRI influences social and political development in the region. It should also investigate trade opportunities between Africa and other regions. In short, to understand the impact of the BRI fully, we need to concentrate on these important areas and approach its implementation and evaluation in a thorough and inclusive way. This way, we can fully understand the situation, think about everyone involved, and work towards a fair and long-lasting future that benefits everyone.

VII. CONCLUSION

An analysis of the BRI in Africa shows that economic considerations play a significant role in China's decision-making when it comes to foreign investment. The country is primarily focused on finding new emerging markets for its excess industrial capacity amid its growing domestic economy. At the same time, there is a growing concern among competitors and host African countries that China is leveraging the BRI for its geopolitical and geo-strategic goals. The Chinese investments in ports on the East Coast and the initial Chinese military base in Djibouti have raised these concerns. China has embraced a "win-win" cooperation model in its economic investments abroad, in which most cases, particularly in Africa, China appears to benefit more from its investments than the host countries, but reverse is the case. Most of the projects that China pursues in Africa under the BRI contribute to the development of infrastructure, industry and connectivity across the continent. Chinese companies use their excess capacity and bring in labour and raw materials from China. The skilled labour used in industrial projects comes mostly from China with some African locals taking on low-end jobs due to lack of the necessary skills. However, China argues that it uses its labour and raw materials because of its better skills and higher quality that allows it to reduce costs. However, it has carried out only a few projects that benefit the entire African population, such as local capacity building in healthcare, skills training or education. In addition, there have been many protests and cancellations or postponements of Chinese projects due to lack of local job opportunities, rising debt worries, violations of quality standards, or incidents of malpractice in Africa. The BRI remains largely a multilateral Chinese initiative, with only a few cases of cooperation with third-party countries. The BRI is expected to promote trade and strengthen economic growth across the region leading to a 25% reduction in road transport margins and 5% in sea transport margins, and to coordinate economic policy and improve regional collaboration and contribute to lifting 7.6 million people from extreme poverty and 32 million from moderate poverty by 2030. It is interesting to note that the UN has acknowledged the intrinsic link between each of the five pillars of the BRI and the 17 SDGs 2030 Agenda. According to their report, China is interested in collaborating with other parties to promote high-quality BRI cooperation, with a focus on building closer partnerships for health cooperation, connectivity, green development, and openness and inclusiveness. This is a positive step towards a more sustainable and prosperous future for all involved. The connectivity projects of the BRI have the potential to tap the market potential in this region, promote investment and consumption, create demands and job opportunities, and enhance people-to-people and cultural exchanges. Moreover, these projects will enable the peoples of the relevant countries to understand, trust, and respect each other, and live in harmony, peace, and prosperity.

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