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BELT AND ROAD INITIATIVE



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Research on the Belt and Road Initiative

About this research

The Chile Pacific Foundation is proud to present this research, which aims to provide highly valuable information, analysis and forward-looking views on one of the most significant international investment programs of our time, China's Belt and Road Initiative (BRI). The idea of diving into the BRI by commissioning a high-level research came up in mid-2020, after thoroughly discussing Chile's international trade and foreign investment priorities with the Undersecretariat of Economic International Relations headed by the Vice Minister of Trade, Rodrigo Yáñez, and senior members of his team.

The Foundation immediately began the process of searching for world-class experts in different countries to conduct the study, who were able to carry it out in record time and in close editorial coordination with the Foundation's staff. This way, the Foundation wants to contribute to feeding the policymaking process as to the country's most relevant next steps in terms of its international trade and overall international economic cooperation.

At the Chile Pacific Foundation, we firmly believe international trade, foreign investment flows and economic integration have been at the core of the country's successful development strategy over the last three decades. This is why we strive to help trade and economic authorities make the most of potential new opportunities by carrying out a diverse work agenda. We believe this is even more important in light of the tectonic changes to the world economy triggered by the ongoing pandemic, which have significantly changed many aspects of international trade as we used to understand it.

This research provides a comprehensive conceptual framework about BRI's development and trends, including what it reveals about China's ways of projecting world influence. It presents a complete narrative in order to situate its origin and evolution in context, including a clear identification of milestones. Most importantly, however, this study analyzes the BRI in light of the potential participation of a country like Chile. To this end, it develops a selected group of case studies whose experience might be relevant to Chile for a number of reasons.

Loreto Leyton
Executive Director
Chile Pacific Foundation

Acerca de esta investigación

Para la Fundación Chilena del Pacífico es un orgullo presentar esta investigación, cuyo objetivo es entregar información, análisis y proyección altamente valiosos con respecto a uno de los principales programas de inversión internacional del mundo de nuestro tiempo, la iniciativa china conocido como Belt and Road (BRI). La idea de meterse de lleno en el BRI mediante una investigación de primer nivel surgió luego de un encuentro, a mediados del 2020, con la Subsecretaría de Relaciones Económicas Internacionales (SUBREI), encabezada por el Subsecretario Rodrigo Yáñez, e integrantes senior de su equipo, para conversar sobre las prioridades del país en materia de comercio e inversiones internacionales.

La Fundación comenzó de inmediato el proceso de búsqueda, en varios países, de expertos de clase mundial, quienes fueron capaces de llevarla adelante en un tiempo récord y en estrecha coordinación editorial con nuestro equipo. De esta forma, la Fundación quiere contribuir a alimentar el proceso de toma de decisiones en relación a los próximos pasos del país en materia de comercio internacional y cooperación económica en general.

En la Fundación Chilena del Pacífico creemos firmemente que el comercio internacional, los flujos de inversión extranjera y la integración económica han estado en el centro de la exitosa estrategia de desarrollo del país durante las últimas tres décadas. Es por esto que nos esforzamos en ayudar a las autoridades de comercio y económicas del país mediante la implementación de una agenda de trabajo diversa. Creemos que esto es incluso más importante a la luz de los cambios tectónicos en la economía mundial gatillados por la pandemia en curso, la cual ha cambiado significativamente muchos aspectos del comercio internacional tal como lo entendíamos.

Esta investigación entrega un completo marco conceptual acerca del desarrollo y tendencias del BRI, incluidos elementos decisores con respecto a las formas de China para proyectar poder. Presenta una acabada narrativa para situar su origen y evolución en contexto, lo que incluye una identificación clara de hitos. Sin embargo, lo que es más importante aún, esta investigación analiza el BRI a la luz de la potencial participación de un país de las características de Chile, para lo que desarrolla un selecto conjunto de casos cuya experiencia podría ser relevante para Chile por diversas razones.

Loreto Leyton
Directora Ejecutiva
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About the Chile Pacific Foundation

The Chile Pacific Foundation is a unique public-private organization devoted to promoting and encouraging the overall insertion of Chile in the Asia Pacific region. The Foundation encourages the general knowledge of the Asia Pacific region and carries out its activities in close collaboration with government agencies, most notably the Undersecretariat of Economic International Relations (SUBREI), as well as the business community, universities and study centers, among other national and international stakeholders. The Chile Pacific Foundation also works as the Chilean Chapter of both the APEC Business Advisory Council (ABAC) and the Pacific Economic Cooperation Council (PECC).

Acerca de la Fundación Chilena del Pacífico

La Fundación Chilena del Pacífico es una organización público-privada única en su tipo en Chile dedicada de lleno a fomentar y promover la integración de Chile en la región del Asia Pacífico. La Fundación alienta el comercio general del Asia Pacífico y lleva adelante sus actividades en estrecha colaboración con entidades de gobierno, muy en especial con la Subsecretaría de Relaciones Económicas Internacionales (SUBREI), así como el sector privado, universidades y centros de estudio, entre otros grupos de interés nacionales e internacionales. La Fundación Chilena del Pacífico también cumple la función de Secretaría Nacional tanto del Consejo Asesor Empresarial de APEC (ABAC) como del Consejo de Cooperación Económica del Pacífico (PECC).

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Part 1: Origins, Development, and Trends of the Belt and Road Initiative (BRI)

Executive Summary

- Economic and geopolitical considerations motivated the BRI. The economic considerations include China's aspirations to develop its western region, upgrade its industries, export excess capacity, and internationalize the renminbi. Geopolitical considerations are China's ambition to cultivate greater ties with the developing countries, and desire to seek a greater influence in the Eurasian region.
- The BRI covers six economic corridors on land and maritime routes, which encompasses the Eurasian landmass. But the BRI is not strictly confined to a specific geographical space and can be extended to other regions in the world.
- BRI has five policy goals: policy coordination, facilities connectivity, unimpeded trade, financial integration and people-to-people ties. Facilities/infrastructure connectivity is the core of the BRI.
- Since 2019, China is committed to ensure that BRI projects will adhere more closely to international standards and better governance. China has also made commitments to address the key criticisms of earlier BRI projects, which is namely, the financial and environmental sustainability of these projects.
- After COVID-19, China may still finance traditional infrastructure projects, but on a smaller scale. The BRI is likely to focus more on public health and digital infrastructure projects.

Since 2013, China has persistently promoted the Belt and Road Initiative (BRI, originally translated as One Belt One Road from the Chinese term *yidai yilu*) to the world. The Chinese official narratives portray it as a major Chinese contribution of public goods to the international community (especially to the developing world), an inclusive platform for regional integration, and an initiative for peaceful cooperation. The BRI defies easy definition, but its core comprises the construction of a series of infrastructure connectivity projects (rails, roads, ports, energy supply networks) across the Eurasian landmass that will facilitate a greater flow of goods, resources, capital, and people. The BRI is composed of the overland "Silk Road Economic Belt" and the "21st Century Maritime Silk Road". These ideas are inspired by the ancient "Silk Roads" (both overland and maritime) where trade and cultural exchanges flourished between China and its immediate neighbors, including the more distant regions in Europe, West Asia, and Africa. Ancient Silk Roads also symbolize peaceful interactions among different civilizations. The revival of these ancient Silk Roads is combined with a more modern and contemporary vision in which infrastructure connectivity is used to create bigger markets and economic opportunities for a large number of developing countries in the Eurasian region.

Section 1: Origins and Rationales

Since the BRI was first introduced in 2013, many foreign think-tanks and strategic analysts have looked at the initiative through the geopolitical lens as the initiative coincided with China's increasing assertiveness in international affairs. Although geopolitics and foreign policy are inevitably part of Beijing's calculations, economic considerations also play an important role behind the launching of the initiative. Both economic and geopolitical interpretations are therefore crucial for understanding Beijing's decision to promote the BRI.

China's Economic Considerations in Launching the BRI

The development of China's domestic economy has always been highly relevant to the BRI. The BRI was put forward at a time when China's GDP growth had decelerated to around 7% since 2010, after three decades of around 10% average annual growth rate. Specifically, the BRI was significantly motivated by the following four economic considerations.

First, the BRI provides a platform to address the excess domestic capacity. Following the Global Financial Crisis (GFC) in 2008, monetary instruments were deployed to revive China's economy. Although eased liquidity fueled the country's transition from an export-led to a new investment-led economy, much of the cheap credit was overwhelmingly mis-allocated to state-owned enterprises (SOE) in the traditional industries and sectors, such as steel fabrication and concrete making. This excess capacity propelled significant growth in the related sectors, such as real estate and infrastructure. Data show that the vacant floor space of commercial housing jumped from 101.76 million square meters in 2000 to 492.95 million square meters in 2013.¹ The slower economic growth since 2010s compounded the difficulty in absorbing all this excess capacity, thereby generating an increase in bad debts and systemic financial risks. Infrastructure, with its extensive forward and backward linkages,² was chosen as a major pillar for the BRI to mitigate the problems arising from the excess capacity and to ensure sustained economic growth.

Another motivation for the BRI, which is closely related to the issue of excess capacity but often overlooked, is the desire to accelerate industrial upgrading through the export of technology. As China is slowly moving up the global value chain (GVC) from labour-intensive to high-tech and high-value-added sectors, the government actively encourages its leading manufacturers to export their cutting-edge technology and to gain competitive advantage

¹ CEIC Database (2020), accessed on 23 Dec 2020.

² Forward linkages occur when the products of an industry are used as the raw materials of another industry. Here, it means that infrastructure will create opportunities for downstream industry which will benefit from good infrastructure connectivity, such as transportation/logistics, real estate and so on. Backward linkages refer to the effect in which production increases by a downstream manufacturer that will provide positive externalities to the upstream manufacturers responsible for different stages of the same production process.

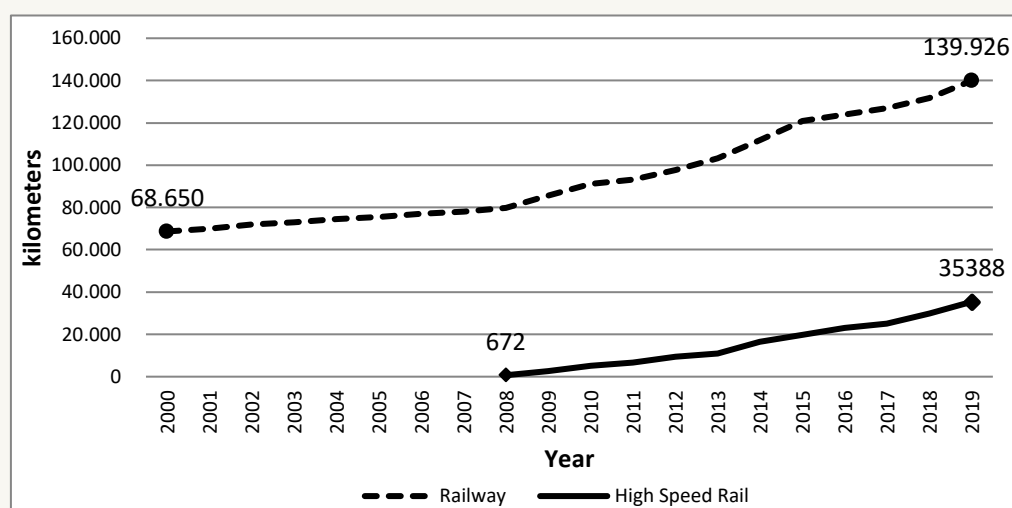
through internationalization. Telecommunications, large-scale construction machinery and high-speed rail equipment manufacturing are among the industrial sectors that are receiving preferential policies and government support. As the domestic market becomes increasingly saturated, the BRI is leveraged to create new external demand for Chinese technology, which will then lead to the international acceptance of Chinese technology and engineering standards.

High-speed rail is perhaps the best example of a Chinese “national champion”, namely the industry of advanced manufacturing “going-out” with massive governmental support.³ The rapid development of high-speed rail within China can be seen in the high average annual growth of 43% in operating coverage of high-speed rail, expanding from a mere 672 kilometers in 2008 to 35,388 kilometers in 2019 (Figure 1). To promote Chinese rail industry and technology, Premier Li Keqiang even personally marketed the high-speed rail to BRI countries such as Indonesia and Malaysia. With extensive linkages to other industries and economic spillovers, high-speed rail is expected to lead Chinese industrial exports, giving Chinese national suppliers a stronger position to participate in GVCs. Therefore, high-speed rail is deemed as a powerful tool that can promote the transformation of related sectors and stimulate domestic industrial upgrading.

The third economic consideration to address China’s increasing regional disparity. As the economy modernizes, the rapidly rising inequality between inland/western regions and coastal/eastern provinces presents a huge challenge for the ruling Chinese Communist Party. As the early priority of the Reform and Open-up policy was given to the Eastern coastal region, the income gap between the coastal and inner regions has increasingly widened over time. Data show that the per-capita disposal income for western China was far less than eastern China and the national average from 2016 to 2019 (Table 1). In 2019, the disposal income per-capita of the mega-metropolis of Shanghai (69,442 yuan) in East China is 3.6 times higher than Gansu province (19,139 yuan), the inland province located along the old Silk Road. The Chinese government had intended to narrow the gap, as evidenced by the launch of the policy of “Great Western Development” in 1999. But the policy to re-vitalize the under-performing western provinces has not performed as well as expected, leading to a widening gap. Thus, the BRI is meant to complement and strengthen the Great Western Development plan of China. Connecting the inland provinces to the neighboring countries via transnational infrastructure, the BRI aims to renew the previous national effort by aligning and equalizing sub-regional economic development inside China for a more inclusive and sustainable growth.

³ Gao Bai et al., *Gaotie yu Zhongguo 21 Shiji Dazhanlue [The High Speed Rail and China’s Grand Strategy in the 21st Century]* (Beijing: Social Sciences Academic Press, 2012); David M. Lampton, Selina Ho, and Cheng-Chwee Kuik, *Rivers of Iron: Railroads and Chinese Power in Southeast Asia* (Oakland: University of California Press, 2020).

Figure 1: Railway Operating Mileage, China, 2000 to 2018, in kilometre.



Source: CEIC database (2020)

Table 1: Disposal Income per-capita, different regions in China, 2016-2019, yuan

	Eastern China			Western China			National Average		
	All household	Urban	Rural	All household	Urban	Rural	All household	Urban	Rural
2016	30655	39651	15498	18407	28610	9918	23821	33616	12363
2017	33414	42990	16822	20130	30987	10829	25974	36396	13432
2018	36298	46433	18286	21936	33389	11831	28228	39251	14617
2019	39439	50145	19989	23986	36041	13035	30733	42359	16021

Source: China Yearbook of Household Survey (2020)

Note: Eastern China refer to 10 provinces/ municipalities in east part of China, including Beijing, Tianjin, Hebei, Shanghai, Jiangsu, Zhejiang, Fujian, Shandong, Guangdong and Hainan. Western China has 12 provinces/municipalities/autonomous region, including Inner Mongolia, Guangxi, Chongqing, Sichuan, Guizhou, Yunnan, Tibet, Shaanxi, Gansu, Qinghai, Ningxia and Xinjiang.

The internationalization of the Renminbi (RMB) provides the fourth economic rationale.⁴ The Chinese economy has long been integrated with economic globalization, but RMB internationalization is still limited in scope and depth, on a global scale. The BRI, through its massive investments in Chinese Renminbi, was leveraged as an important instrument to internationalize its currency. As BRI projects are often undertaken by Chinese SOEs,⁵ the daily operations, with large amounts of financial transactions in RMB, help to increase the usage of the RMB for international settlements. According to the statistics from SWIFT, the share of RMB as global payment currencies rose from 0.63% in January 2013 to 1.93% in December 2019.⁶ By June 2017, more than 1,900 financial institutions worldwide are using RMB for

⁴ Cheng Siwei, *Renminbi Guojihua zhi Lu [The Paths of the Internationalization of Renminbi]* (Beijing: China CITIC Press, 2014).

⁵ Cai (2017) "Understanding China's Belt and Road Initiative", Lowy Institute, March 2017

⁶ SWIFT RMB Tracker (2019)

payments.⁷ The IMF's yuan reserves data demonstrates a consistent trend, as the share of RMB in allocated reserves reported, increased from 1.07% in 2016 to 2.01 % in 3Q2019.⁸

The increasing presence of Chinese companies overseas will also motivate Chinese financial companies to expand to the BRI countries to cater for the needs of offshore RMB trading as well as cross-border transactions. In Latin America, for example, China has designated its state-controlled Industrial and Commercial Bank of China (ICBC) as the official Renminbi clearing and settlement bank in Buenos Aires in September 2015. Additionally, since China has been the largest lender to BRI infrastructure projects, financing BRI projects is clearly helpful for China in adopting more active policies in capital account convertibility. Therefore, intensified international cooperation under the BRI framework creates a benign environment for the RMB to be continuously internationalized. Indeed, studies have shown that the BRI and RMB internationalization are found to be positively correlated, suggesting that the BRI strengthens the RMB's position as an international currency.⁹

China's Geopolitical and Foreign Policy Considerations in Launching the BRI

Apart from the economic reasons, there are also a number of geopolitical and foreign policy considerations for China's promotion of the BRI. Officially, China objects to the characterization of the BRI as a geopolitical move or the formation of a diplomatic bloc, and denies that geopolitical considerations drive the objectives of the BRI. Nevertheless, given its massive scale, the BRI will have significant geopolitical impact and implications, regardless of the original intentions. Moreover, despite Beijing's reluctance to acknowledge that there are geopolitical and/or foreign policy considerations behind the BRI, one can still discern such considerations by analyzing China's foreign policy interests and the objectives of the BRI.

First, the BRI, as a connectivity-based strategy, will reinforce China's connections with the developing world. It is an economic statecraft used to pursue political and policy goals. The 2008 GFC has been widely interpreted within China as an event that undermined the old global governance model whereby the G7 group of rich Western countries dominated and determined the global agenda. From China's perspective, global economic governance had to reflect the growing voices and influences of the developing world and emerging powers. As China became more economically and militarily powerful, its relations with the developed world since the 2010s has become more uncertain and increasingly tense. Beijing viewed the developing world as the key front whereby it can cement support for its growing stature and

⁷ SWIFT (2017) "Will the Belt and Road revitalise RMB internationalisation?", URL:

file:///C:/Users/zm/Downloads/swift_rmb_tracker_july2017_special_report.pdf, accessed on 22 Dec. 2020.

⁸ IMF (2020) URL <https://data-download.imf.org/GetFileService.svc/GetFile/bfd2753d-b732-4a00-a4d0-e550c7f6c127>

⁹ Bora Ly | Albert W. K. Tan (Reviewing editor) (2020) The nexus of BRI and internationalization of renminbi (RMB), Cogent Business & Management, 7:1, DOI: 10.1080/23311975.2020.1808399

claims of leadership, in part through the promotion of “the China model”.¹⁰ The BRI has a huge potential to help land-locked countries expand trade routes and address the infrastructure gaps of many developing countries. Through this initiative, China will be able to strengthen its relations with much of the developing world. Beijing will also be able to claim the status of a rule-setter in future global economic governance.

Second, the BRI is a core element in China’s international strategy to fend off the growing pressures from an increasingly uncertain U.S.-China relationship.¹¹ Since the late 2000s China has also been embroiled in numerous intractable maritime disputes with its neighbors in East China Sea and South China Sea. The U.S. government’s officially pronounced strategies, such as the earlier Obama administration’s Re-balance to Asia strategy and subsequent Trump’s Indo-Pacific strategy, were/are interpreted in China as the U.S. undertaking a subtly hostile move to erect a maritime-based security structure aiming to contain, constrain, suffocate or subdue China. The fact that much of China’s enormous wealth is generated from the Eastern coastal provinces which are well integrated with the global trading system, actually makes China’s strategic thinkers uncomfortable. While the BRI continues does have a maritime component, it is also clear that the initiative will strengthen China’s overland connection and integration with Eurasia, which will allow China more strategic options and space for geopolitical manoeuvre.

The BRI: From 2013 Announcement to the 2015 Vision and Action Document

In September 2013, Xi Jinping visited Kazakhstan and gave a speech that first proposed the joint construction of a “Silk Road Economic Belt”. In the following month, Xi visited Indonesia and in his speech to the Indonesian Parliament, he proposed the joint construction of a “21st Century Maritime Silk Road.” These two speeches marked the beginning of the concept of the Belt and Road. The “Belt” and the “Road”, separately or jointly, quickly emerged as the favored terms used by Chinese leaders and officials. They were also incorporated into the document *Decision of the Central Committee of the Communist Party of China on Some Major Issues Concerning Comprehensively Deepening the Reform*, unveiled in the 3rd Plenum of the 18th Party Congress in November 2013. Later in 2017, the BRI development was incorporated into the CCP’s Constitution. The BRI’s inclusion in the official document elevated its status as a major and long-term state strategy in the overall modernization and reform of China.

¹⁰ Daniel A. Bell, *The China Model: Political Meritocracy and the Limits of Democracy* (Princeton, NJ: Princeton University Press, 2016); Chen Weitseng, *The Beijing Consensus?: How China Has Changed Western Ideas of Law and Economic Development* (Cambridge: Cambridge University Press, 2017).

¹¹ Xue Li, “Meiguo Zaipingheng Zhalue yu Zhongguo Yidai Yilu [The U.S. Rebalance Strategy and China’s ‘One Belt, One Road’],” *World Economics and Politics*, No. 5 (2016); Wang Jisi, *Daguo Zhanlue [Great Power Strategy]* (Beijing: China CITIC Press, 2016).

In March 2015, the National Development and Reform Commission (NDRC), the Ministry of Foreign Affairs (MFA), and the Ministry of Commerce (MOC) jointly issued the document *Vision and Actions on Jointly Building the Silk Road Economic Belt and the 21st Century Maritime Silk Road* (*Vision and Actions* hereafter), which remains the most authoritative policy document defining and guiding the development of the BRI. The guiding principles of the BRI are laid out in this document, which are summarized as “extensive consultation, joint contribution, and shared benefits.” These principles suggest that in developing BRI projects, China will focus more on bilateral negotiations with the authorities of the participating countries and it will not follow a particular framework and blueprint.

The fact that the BRI is a highly flexible venture without a “one-size-fit-all” structure does not necessarily lead to asymmetric negotiation between China and BRI countries. The decision-making process involving China often features a high degree of consultation and consensus. To accommodate locality, most of China’s initiatives and policies at national level are designed with broad directives rather than explicit guidelines, leaving the autonomy to authorities at ministerial, provincial, municipal and even enterprise levels for implementation. In practice, it is the sub-national government or state-owned enterprises that play a major role in connecting BRI countries in cooperation. This allows for opportunity and discretion at the negotiation level. In contrast with the decision-making style based on a particular framework and blueprint in Western multilateral negotiations¹², the socialization process in the BRI allows participants flexibility and discretion to cooperate according to their best interest. Small state or middle power, such as Chile, do possess sufficient autonomy to hold or even bolster their position in their negotiations with China so as to advance their own national goals. Experiences for countries with comparable economic size to Chile, such as Greece or Malaysia, could be of relevance here.¹³ However, there is also a risk posed by this kind of bilateral negotiation also, especially when the private interests of the ruling elite of the hosting government of the day may be infused into and packaged as one of advancing national goals through the BRI projects. Chinese project negotiators tend not to be too concerned about this kind of ethical considerations and it is up to the self-discipline and vigilance of the hosting countries to ensure abuses of power and corruption will not happen.

The flexible nature of the BRI also led Chinese governmental ministries and provincial authorities to formulate their respective plans for the implementation of the BRI. China also signed numerous bilateral and multilateral Memorandum of Understandings (MOUs), statements, and declarations with foreign governments and international organizations on the

¹² Amitav A. (2000) *Constructing a Security Community in Southeast Asia: ASEAN and the Problem of Regional Order*, Routledge, London. ISBN 0-203-39334-1. Qin Y. Q. & Wei L. (2007) *Structures, Processes, and the Socialization of Power: China and Regional Cooperation in East Asia*, *World Economic and Politics*, No.3,

¹³ Hong Liu & Guanle Lim (2018): *The Political Economy of a Rising China in Southeast Asia: Malaysia’s Response to the Belt and Road Initiative*, *Journal of Contemporary China*, DOI: 10.1080/10670564.2018.1511393

BRI. In total, there are more than a hundred governmental, bilateral and multilateral documents, and collectively they serve to illustrate the official guidelines of how China intends to develop the BRI cooperation in different sectors, regions, and localities. Other than these documents, the Office of the Leading Group for the Belt and Road Initiative, the main coordinating government body for the BRI, also issued two reports on the progress of the BRI in 2017 and 2019. Table 2 highlights a small selection of these documents and reports.

Table 2: Selected Documents on the BRI from Chinese Authorities

Document	Chinese Governmental Entities and Year
Vision and Actions on Jointly Building the Silk Road Economic Belt and the 21st Century Maritime Silk Road	National Development and Reform Commission, Ministry of Foreign Affairs Ministry of Commerce (2015)
Implementation Plan for Advancing BRI Health Cooperation (2015–2017)	Ministry of Health (2015)
Guangdong's Implementation Plan for Participating in the Belt and Road Initiative	Guangdong Provincial Government (2016)
Guidance on Promoting Green Belt and Road	Ministry of Ecology and Environment (2017)
Guiding Principles on Financing the Development of the Belt and Road	Ministry of Finance (2017)
Building the Belt and Road: Concept, Practice and China's Contribution	Office of the Leading Group for the Belt and Road Initiative (2017)
Vision for Maritime Cooperation under the Belt and Road Initiative	Office of the Leading Group for the Belt and Road Initiative (2017)
Initiative on Promoting Unimpeded Trade Cooperation along the Belt and Road	Ministry of Commerce (2017)
Action Plan on Belt and Road Standard Connectivity (2018-20)	Office of the Leading Group for the Belt and Road Initiative (2018)
Arrangement on Supporting Hong Kong's Participation in the Belt and Road Construction	National Development and Reform Commission (2018)
The Belt and Road Initiative: Progress, Contributions and Prospects	Office of the Leading Group for the Belt and Road Initiative (2019)
Debt Sustainability Framework for Participating Countries of the Belt and Road Initiative	Ministry of Finance (2019)

Source: Compiled by authors

Domestic Policy Structure for BRI Coordination

Given that so many central and provincial governmental bodies are actively engaging in the BRI cooperation, it is therefore a challenge also for the top-level leadership in China to systematically synthesize and incorporate all these initiatives and policies into a coherent

framework and process. To this end, the Chinese government has created a top-level policy structure to design formulate, plan, and coordinate the BRI-related policies. While President Xi Jinping (and Premier Li Keqiang) will always have the final say on important BRI matters, operationally, the top official in charge of leading the central apparatus in support of BRI policies is the Vice Premier Han Zheng, who is also the 7th-ranked official at the Politburo Standing Committee (PSC). Han is leading the BRI through his leadership of the Leading Group for the Promoting BRI Construction, the top-level coordinating committee created under the State Council of China. Other members of this group include Yang Jieci (Director of Central Commission on Foreign Affairs), Hu Chunhua (another Vice Premier), Xiao Jie (Secretary General of the State Council), and He Lifeng (Director of National Development and Reform Commission [NDRC]).¹⁴ The Leading Group is assisted by a secretariat called the Office of the Leading Group for the Belt and Road Initiative, in which He Lifeng concurrently serves as the Office Director. This Office is also placed within the NDRC bureaucracy, and many officials of this Office concurrently hold NDRC positions. In this sense, the NDRC is the nerve center for the Chinese government in carrying out the BRI agenda.

Section 2: Milestone and Development

Five Areas of Connectivity

Officially, the BRI encompasses five policy goals: policy coordination, infrastructure connectivity, unimpeded trade, financial integration, and people-to-people ties. Policy coordination essentially means a commitment from the political leadership, which serves as a necessary precondition for joint actions. To this end, the Chinese government often seeks official endorsement in the form of declaration, joint statements, or MOUs from foreign governments and international organizations as signs of progress in achieving policy coordination. China claims that by November 2020, it has signed 201 BRI cooperation agreements with 138 countries and 31 International organizations.¹⁵ A vast majority of these countries are from the developing world, but a few developed countries (most notably Italy) have also signed MOUs on BRI cooperation with China. At the multilateral level, the language of BRI has been successfully included in such forums and organizations as Shanghai Cooperation Organization, China-ASEAN Summit, Forum on China and the Community of Latin American and Caribbean States, China-Arab States Cooperation Forum, and Forum on China-Africa Cooperation.

¹⁴ That the lead coordinating government agency is set up under NDRC again confirms BRI's economic emphasis. NDRC is the country's premier economic planning agency, which is responsible for formulating and implementing strategies for national economic and social development and coordinating major economic operations.

¹⁵ Sun J. X. (2020), The Report Card of the BRI (*Yidai Yilu de Liangyan Chengjidan*), *China Today*, http://www.chinatoday.com.cn/zw2018/bktg/202012/t20201211_800229747.html, accessed on 8 Jan. 2021.

While policy coordination aims to secure BRI cooperation from the top, facilities connectivity emphasizes improved connectivity of infrastructure in the form of not only “hardware” by roads, railway and ports, but also “software” by technical standards and management models. The BRI attempts to promote infrastructure connectivity and investment in the land-locked continental Eurasia, to propel maritime transport connectivity and expediency from the South China Sea, through the Indian Ocean, to Africa to Western Europe, and to exert China’s economic and strategic influence along the routes in these regions. The fact that transportation and energy sectors are receiving the major share of BRI investment underscores the unparalleled importance of infrastructure connectivity.¹⁶ To what extent the BRI’s potential will be fully realized also depends on how the infrastructures are connected, as free flow of cross-border trade and investment largely depends on infrastructure connectivity.

The goal of unimpeded trade means to promote free trade by reducing trade barriers with its partners and BRI countries. As one of the world’s largest trading countries, China increasingly recognizes the importance of free trade, and considers it as a cornerstone in the multilateral trading system within the WTO framework. China also has entered a number of Free Trade Agreements (FTAs) with its trade partners to lower the tariffs and eliminate non-tariff barriers. Hence, the FTAs in a way can be seen as highly complementary to the BRI agenda.

In addition, the BRI aims to strengthen financial integration by enhancing coordination and cooperation among financial institutions in BRI countries. China has marshaled considerable financial resources for the BRI, most of which are provided through traditional state channels. In addition to the conventional channels via state-backed commercial banks and policy banks, a number of supportive financial institutions have been established to finance BRI-related projects. The Asian Infrastructure Investment Bank (AIIB) and the Silk Road Fund, among others, are major institutions to lend financial support for infrastructure construction in emerging markets. By early 2019, a total of 93 countries had become AIIB’s member states. The Silk Road Fund had also funded 25 investment projects with total funding exceeding USD6.8 billion. As China cannot be the sole financier, authorities in Beijing have started to invite foreign investors in both government and private sectors to meet the massive funding demands of the BRI. New cooperation mechanisms have thus been designed. For example, the People's Bank of China proposed to jointly form an Asian bond market with Malaysia, Singapore and Thailand. Up to 2018, more than USD300 billion in bonds had been issued by the bond markets across Asia.

¹⁶ U.S.-China Economic and Security Review Commission (2014) “Annual Report to Congress”, Chapter 3 Section 1- China and Asia’s Evolving Security Architecture”, URL: <https://www.uscc.gov/annual-report/2014-annual-report-congress>, accessed on 21st Dec. 2020.

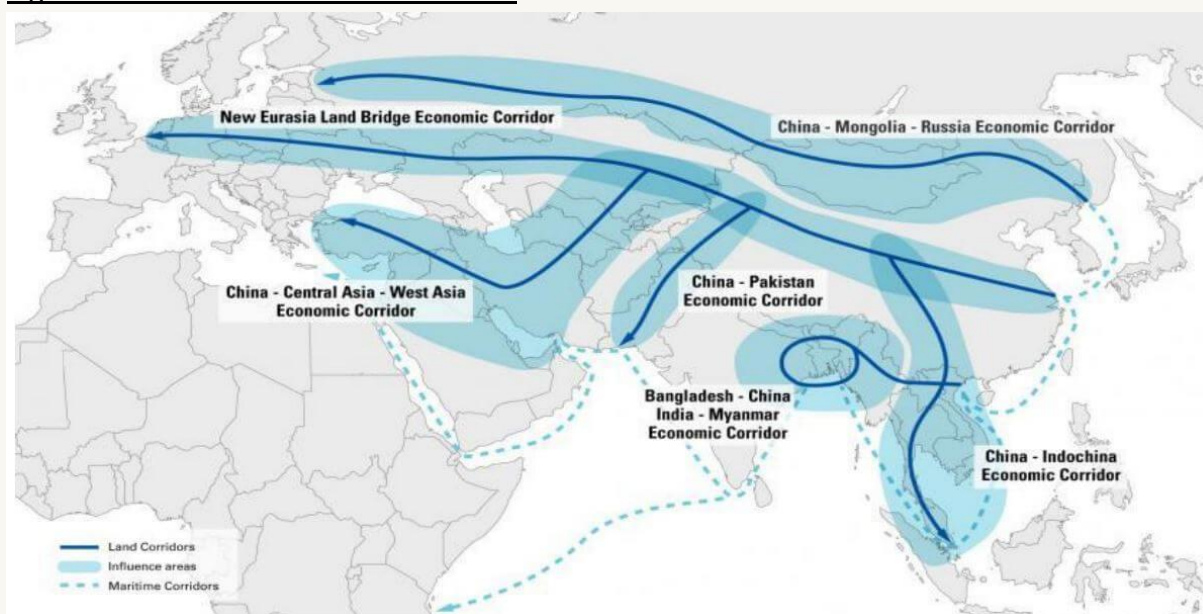
Finally, people-to-people connectivity aims to provide a stronger social and cultural foundation for BRI cooperation. Education, health, science and technology, and tourism can be branded as also part of the BRI agenda. Health infrastructure, in particular, will now become more prominent and pertinent (under the moniker Health Silk Road) within the context of the ongoing COVID-19 pandemic. However, with the exception of health and medicine, “people-to-people” connectivity appears to be mostly marginal to the core of the BRI. The core instead continues to focus on enhanced economic cooperation, underpinned by stronger infrastructure connectivity, which in turn facilitates unimpeded trade and further improves financial integration between China and other BRI participating countries.

Despite the five policy goals that are put forward simultaneously, there is a high level of variance in terms of the development of each policy area, and in different countries/regions. In general, the goals of policy coordination, unimpeded trade and facilitate connectivity have received immediate responses from participating countries. In comparison, financial integration and people-to-people ties have progressed relatively slowly. Most governments in Southeast Asia, Central Asia and Africa have actively responded to the BRI due to their strong trade relations with China and long historical people-to-people ties. But, countries in West Asia and Europe seem to be more cautious in responding to Beijing’s invitation. In general, the BRI has only been defined in broad strokes in terms of international cooperation, and its implementation involves multiple actors and stakeholders. For this reason, country-specific, sector-specific and even project-specific studies are crucial to fully understand its development.

Geographical Areas of the BRI

The *Vision and Actions* document envisions the construction of six giant, cross-national economic corridors across the Eurasian landmass that will be connected by rails, roads, bridges, energy facilities and industrial parks. These six corridors are: New Eurasian Land Bridge (NELB), China-Mongolia-Russia Economic Corridor (CMREC), China-Central Asia-West Asia Economic Corridor (CCWAEC), China-Pakistan Economic Corridor (CPEC), China-Indochina Peninsula Economic Corridor (CICPEC), and Bangladesh-China-India-Myanmar Economic Corridor (BCIMEC). Together with the 21st Century Maritime Silk Road (MSR), these six corridors illustrate the vast ambitions of the BRI’s vision (see Figure 2 and Table 3).

Figure 2: Economic Corridors of the BRI



Source: Hong Kong Trade Development Council and Nomura Global Economics (2020).

Table 3: Selected Infrastructure Projects in the Economic Corridors of the BRI

Economic Corridor	Examples of Infrastructure Projects
NELB	• Hungary-Serbia Railway • Western China-Western European International Expressway
CMREC	• Tongjiang- Nizhneleninskoye Railway Bridge, Russia • Heihe-Blagoveshchensk Road Bridge, Russia • China-Mongolia-Russia cross-border terrestrial cable system
CCWAEC	• Khorgos Gateway Dry Port • China-Central Asia Gas Pipeline, Turkmenistan, Uzbekistan and Kazakhstan • Qamchiq Tunnel, Uzbekistan
CPEC	• Peshawar-Karachi Motorway • Karakoram Highway Phase II • Gwadar Port Expansion
CICPEC	• Kunming-Bangkok Expressway, Thailand • China-Laos Railway
BCIMEC	• Kyaukhhyu Port, Myanmar • Muse-Mandalay Railway, Myanmar
MSR	• Kuantan Port, Malaysia • East Coast Rail Link, Malaysia • Hambatota Port, Sri Lanka • Muara Port, Brunei

Source: Compiled by authors.

While the core geographical focus of the BRI is and will remain the Eurasian area, the Chinese government has never specifically confined the initiative to a particular geographical space. For example, the notion of a Polar Silk Road that first emerged in China in 2017, pointed towards the utilization of the Arctic region for connecting East Asia with Western Europe and Northern America through new maritime routes. The BRI is being developed and pursued in the African continent with a view of the eventual enhancement of the connectivity within, and between, Africa and the Eurasian landmass. The 21st Maritime Silk Road covers not just westward but also eastward to the Pacific Island countries and the archipelagic states in Southeast Asia.

Much like the Polar Silk Road, Latin America was recently included in the BRI's growing ambit. Despite the region's geographical and cultural distance from the original confines of BRI, at the 2nd Forum of China and Community of Latin American and Caribbean countries (CELAC) in Chile in 2018, State Councilor and Chinese Foreign Minister Wang Yi stressed the importance of improving connectivity between China and CELAC. Chile welcomed the BRI by signing the BRI cooperation MOU in 2018.

As a gateway country in Latin America, Chile celebrated the 50th anniversary of the establishment of diplomatic ties with China in 2020. The two countries maintain close economic relations with each other across the long distance of the Pacific Ocean. China has been Chile's biggest trading partner for 10 continuous years from 2010. Since the signing of the Chile-China FTA in 2005, bilateral trade has grown by 14% annually, on average. Even amid the hardship of the COVID-19 pandemic, China still accounts for 36% of Chilean exports. To become a "landing point for Chinese investments in Latin America," Chile introduced an attractive legal framework¹⁷ to protect Chinese investments.¹⁸ In general, the strategic location and preferential policy offered by Chile, has attracted USD 1.17 billion from China in 2019, compared to USD 97.94 million in 2011. It records an average annual growth rate of 36% over the period. Looking into the future, Chile-China cooperation under the BRI framework is expanding beyond the conventional form of economic partnership in trade and investment, into the infrastructure sector (e.g. submarine cable and ports) as well as digital economy (e.g. technological innovation and cross-border e-commerce).

Section 3: Evolution and Trends

In 2017, Beijing organized the first summit Belt and Road Forum (BRF) to showcase the success of the BRI thus far. 30 heads of state/government attended the BRF, whereby China

¹⁷ As the 1st Latin American country to provides treaty protections over Chinese investments since 1994, Chile and China concluded a bilateral investment treaty, which was replaced by "supplementary agreement on investments" in 2012 within framework of the Chile-China free trade agreement.

¹⁸ Robert Ampuero, "Chile joins China's Belt and Road Initiative", November 2018, URL <https://eng.yidaiyilu.gov.cn/home/rolling/70834.htm>, accessed on 19th December, 2020.

sought to position itself as a promoter of economic openness and a driving force for globalization. Although criticisms of some BRI projects have already emerged in western think-tanks and media circles, the agenda of the first BRF was still mostly focused on construction of major infrastructure projects, industrial development and collaboration, and policy agreements on trade, finance and energy. Xi Jinping announced increased funding for the BRI projects through the Silk Road Fund, China Development Bank and Export-Import Bank.¹⁹

The Second BRF and BRI 2.0

Taking place in April 2019 and attended by 37 heads of state/government, the second summit BRF marks the starting point of the era of “BRI 2.0”. With a notable difference compared to the first BRF, the 2nd summit BRF took note the criticisms and controversies of BRI projects, especially with regards to its financing model and debt creation. Using the analogy of traditional Chinese calligraphy, Xi Jinping himself spoke of the necessity to change from the early phase of “big freehand” style to a more consolidated, high-quality phase of “fine brushwork” in the formulation and implementation of BRI projects.

Beijing’s shift in strategy arises from China’s concern over the potential damage to its global image if issues of debt, environmental and social sustainability are not properly addressed. Over the years, western media reports have highlighted several cases of BRI projects that allegedly resulted in serious debt or environmental issues for the hosting countries and required renegotiation or suspension (see Table 4).

Table 4: Selected Cases of Renegotiation or Suspension of BRI Projects

Host Country	Project	Details	Status
Sri Lanka	Hambantota Port	Financed by a loan from China, repayment became difficult when the Sri Lankan government faced debt issues in 2016-2017. A new agreement was signed where a Chinese company acquired 70 percent stake of the operating company of the Port for 99 years.	Renegotiated and resumed
Malaysia	ECRL	Financed by a loan from China. Suspended in 2018 but revived in 2019 with scaled down costs and increased domestic participation rate (case study of this report, Part 2)	Renegotiated and resumed
Malaysia	Trans-Sabah Pipeline and Multiple-	Two oil and gas pipeline projects financed and contracted to Chinese companies. Cancelled in September 2018.	Cancelled

¹⁹ Shannon Tiezzi, “What Did China Accomplish at the Belt and Road Forum?” *The Diplomat*, May 16, 2017. <https://thediplomat.com/2017/05/what-did-china-accomplish-at-the-belt-and-road-forum/>

	Purpose Pipeline		
Pakistan	Karachi–Peshawar Railway upgrade project	Financed by a loan from China. Original cost was USD8.2 billion. Renegotiation began in 2018, scaling down to USD7.2 billion, approved by Pakistani cabinet in June 2020.	Renegotiated and resumed
Myanmar	Kyaukpyu Port	Reportedly scaled back from an original estimation of USD7.2 billion in 2015 to USD 1.3 billion in 2018. A joint venture comprising 70 percent stake from a Chinese consortium and 30 percent from a Myanmar consortium. Approved in August 2020.	Renegotiated and resumed
Sierra Leone	Mamamah International Airport	Agreement to build the airport was signed in 2017 and it was to be financed by a Chinese loan and to be constructed by a Chinese company. Project was terminated in October 2018 following the election of a new government, which cited debt concerns as the main reason.	Cancelled
Kenya	Coal Power plant project in Lamu	PowerChina Group was contracted to build the coal power plant, and the construction would have been financed by a Chinese bank as well. Due to environmental concerns the project was canceled in 2019.	Cancelled
Tanzania	Bagamoyo Port	Agreed in 2013. A new government suspended in 2016. On and off resumption and suspension until negotiations broke down in 2019. Cancelled afterwards. Tanzania cited debt concerns but China refuted and said the cancellation was due to different priorities of a new government.	Cancelled

Source: Various sources.

Table 4 shows that bilaterally negotiated BRI projects can be problematic, although this should be viewed in the context that not all bilaterally negotiated projects were failures and problematic. In various cases host governments were able to work with China for a successful renegotiation. It should be cautioned here that it is difficult to apportion the real cause for failures in re-negotiations, as details were often not clear. Nevertheless, China's grand vision on promoting a common development for all would be eventually undermined if these problems are not taken seriously. In addition to the first factor which pertains more about soft power and self-image (*mianzi* in Chinese), the second motivation is related to the financial implications. Since China is the main creditor in many BRI projects, this implies that if the debt pressure continues to intensify, China will be pressurized to waive payments for debt-constrained projects. Given that China has invested a massive amount of loans in BRI projects, such consequences will eventually impinge on the country's own growth which is

already slowing down. Therefore, Beijing would like to change the formulation and implementation of BRI projects as a direct response to the criticisms leveled against the BRI and as a form of self-correction after the first five years implementation.²⁰

In view of these pressing issues, Beijing realized that in order to make the BRI sustainable, investments in traditional infrastructure construction needs to be complemented by considerable reforms and improvements in the institutional, financing, and policy aspects. The joint declaration of the second BRF notably committed to advancing “high quality, green, sustainable, and inclusive Belt and Road cooperation.”²¹ Analysts also took note that compared to 2017 first summit BRF, there were frequent references to terms such as “quality” and “international standards” in Xi Jinping’s speech in the 2019 BRF.²² It signals that, while the BRI 1.0 focused on launching projects, BRI 2.0 has evolved to concentrate on improving implementation. With this policy shift, renegotiations and refinements with host economies are possible to advance their own national goals when host countries encounter problems with the BRI projects.

In this regard, Malaysia’s East Coast Real Link (ECRL) is a good example to illustrate China’s new flexibility in refining the existing BRI projects. Following Malaysia’s power transition in 2018, the ECRL was terminated by the new administration due to the lack of transparency and debt sustainability issues in the initial formulation of the project. Noting Malaysia’s fiscal and social constraints, and after a series of negotiations, China agreed to re-scale the project in July 2019 by cutting nearly one-third of the total the construction costs of nearly US\$16 billion. The project also saw the commitment from China to increase local participation in the construction project to 40 percent from the previous 30 percent. Other examples where Beijing was asked by its BRI partner to renegotiate and refine their BRI projects include the Kyaukpyu Port in Myanmar and the Bagamoyo Port in Tanzania. However, not all cases of renegotiation were successful.

While existing projects can be renegotiated and refined, future BRI projects under the “BRI 2.0,” are likely to be better scrutinized and researched, with better environmental assessments and more transparent cost-benefit analysis prior to approval. They are also more

²⁰ Tajuma Yatsui, “China Exploring Ways to Adjust Belt and Road Initiative: Compromising to meet International Standards and the Limits of Such Adjustment.” *Mitsui & Co. Global Strategic Studies Institute Monthly Report*, October 2019.

https://www.mitsui.com/mgssi/en/report/detail/icsFiles/afiedfile/2020/01/07/1910c_yatsui_e.pdf; Xinyue, Ma. “Assessing China’s Most Comprehensive Response to the ‘Debt Trap’: the Belt and Road ‘Debt Sustainability Framework’.” *Panda Paw Dragon Claw*, July 17. 2019. <https://pandapawdragonclaw.blog/2019/07/17/debt-trap-for-whom/>

²¹ Pradumna Bickram Rana, Xianbai Ji, “Belt and Road Forum 2019: BRI 2.0 in The Making?” *RSIS Commentary*, May 2, 2019. https://www.rsis.edu.sg/rsis-publication/cms/belt-and-road-forum-2019-bri-2-0-in-the-making/#.X9sBw7dS_IU

²² Tajuma Yatsui, “China Exploring Ways to Adjust Belt and Road Initiative,” p. 5.

likely to be less expensive and of a higher quality, and increasingly sponsored by multiple agencies, enabling them to be executed in a much more efficient way and with a wider range of stakeholders. These stakeholders can be from different countries rather than just China alone. Contracts may not be sole-sourced to Chinese contractors and more local input will likely be sought regarding the economic and environmental impact.²³

Green BRI Investment and Financial Sustainability

To trace the trend of the “BRI 2.0,” two documents on environmental and financial sustainability before and in the wake of the Second BRF are briefly discussed here. Large-scale BRI infrastructure projects such as rails and roads often pass through ecologically vulnerable but inadequately protected landscapes, leading to the BRI’s close association with environmental risks. To address these concerns, the *Green Investment Principles for the Belt and Road* (GIP)²⁴ was announced in November 2018 and signed by the representatives of 27 financial institutions/corporations. The signatories jointly agreed to ensure that BRI’s investment and operations are committed to be environmentally friendly, climate resilient and socially inclusive. As finance plays a key role in BRI projects, the green principles agreed by major bankers provide the incentive for BRI projects in each step of execution, from investment decision-making to the daily operations, to be implemented in a more environmentally friendly way.

Apart from environmental considerations, economic and social sustainability have also been gradually incorporated into the financial and operational aspects of BRI projects. Some of the earlier BRI projects ran into financial problems because the BRI projects were directly negotiated between Beijing and hosting governments without sufficient scrutiny on the financial sustainability and transparency of the projects. Direct negotiation was preferred partly due to one of the general principles of the BRI as mentioned earlier, namely extensive consultations. Beijing believed that direct consultation and negotiation with the authorities of the hosting countries will result in projects that are beneficial to both sides. But in practice, not all host governments have enough expertise to evaluate the financial sustainability of these projects.

In April 2019, Chinese Ministry of Finance introduced the *Debt Sustainability Framework for Participating Countries of the Belt and Road Initiatives* (abbreviated as DSF hereafter),²⁵ which highlights the importance of low-income countries balancing the financing demands, social development and debt sustainability of BRI projects. DSF specifies the

²³ Vesna Kong et al. “The Belt and Road Initiative: Six Years On.” *Moody’s Analytics*, June 2019. <https://www.moodyanalytics.com/-/media/article/2019/belt-and-road-initiative.pdf>

²⁴ Full details could be accessed via <http://www.gflp.org.cn/public/ueditor/php/upload/file/20181201/1543598660333978.pdf>

²⁵ Full terms are available on <http://m.mof.gov.cn/czxw/201904/P020190425513990982189.pdf>

procedures and steps for debt sustainability analysis as a guideline for lending decisions to low-income countries in the BRI. Since this framework recognizes the necessity of borrowing to achieve a country's long-term development, the policy tool also provides a framework for debt assessment and financial management in an effort to address the “debt trap” concerns in some BRI projects.

Being a non-mandatory policy tool, DSF was introduced by China's Ministry of Finance and aims to provide a reference to financial institutions in making lending decisions to Least Developing Countries (LDCs). The lending agencies are encouraged, but not obliged, to use this framework for debt sustainability analysis and debt risk management. DSF makes no specific mention on lending terms, suggesting the government's intention to let the state-owned-banks decide on whether the loans should be provided on concessional or commercial rates. As DSF is country-specific rather than project-specific, a country in debt distress can still take up loans if the bank deems the individual loan-backed project is commercially viable and the borrower is able to service the debts. Despite no information on actual implementation is available to us for assessing DSF's effectiveness, the fact that most Chinese lending institutes are state-backed implies that DSF is likely to be adopted as a collective gesture of China's commitment to preventing and resolving debt risks in the implementation of the BRI.

Improving debt sustainability requires more than risk assessment of debt distress as suggested by DSF. Bilateral consultations still remain important. While the assessment results based on DSF provide a necessary reference point to financing institutions (from China and other sources) of a specific country's debt level and debt service profile, it is more important for the BRI hosting country's authority to take the initiative to introduce policies that are politically feasible, socially acceptable, and involving different stakeholders, for overall fiscal stability and debt stabilization. This includes improving macro-economic conditions in general, and adopting good practices of governance, in particular.

Hence, the Second BRF recognizes that the principle of “extensive consultation” will have to be balanced with a more prudent approach such as incorporating well-established principles of fiscal sustainability. By doing so, host countries can benefit from an improved regulatory environment and a sound fiscal foundation. Debt sustainability also calls for improved transparency and governance capability. While openness in fiscal budgeting and public procurement help to reduce the operation costs of individual projects, greater transparency and corruption-free practices can lower social risks. The BRI projects have to incorporate these good practices, which also require the cooperation from stakeholders in the host country, most importantly the host government, to achieve the aspired high-quality standards.²⁶

²⁶ The World Bank (2019) Belt and Road Economics: Opportunities and Risks of Transport Corridors, published online, Washington, DC. ISBN (electronic): 978-1-4648-1465-5, DOI: 10.1596/978-1-4648-1392-4

Since the Second BRF has committed to undertaking deliberate efforts to mitigate the financial and environmental risks of stranded infrastructure projects, it is significant that China realizes BRI's full potential can only be achieved with stronger governance and adherence to higher social and environmental standards. It is to be noted here that probably because of the unexpected outbreak of the COVID-19 pandemic in late 2019 and throughout 2020, as of early 2021, there is no major *new* project explicitly formulated under the new DSF framework. Still, for countries interested to develop new BRI project, it is crucial to capitalize on Beijing's commitment to the high-quality agenda of "BRI 2.0." Closer coordination and cooperation of multiple stakeholders from China and the BRI countries are crucial for the BRI's sustainable development. It should be emphasized here that the effectiveness of these guidelines still depends on the seriousness and commitment from the hosting countries and China to adhere to the guidelines in the negotiation and implementation phases of future BRI related projects. BRI host countries bear as much responsibility as China in the formulation and execution of their BRI cooperation projects with China.

COVID-19 and Future Trends of the BRI

When the second BRF concluded in 2019, investment in public health infrastructure was not a focus of attention, despite being on the agenda. With the outbreak of the COVID-19 pandemic, one of the likely trends of the BRI will be a stronger attention on public health infrastructure, which is covered under the concept of the Health Silk Road.²⁷ A briefing note by AIIB indicates that investments into basic infrastructure such as clean water supply, sanitation and utility are essential,²⁸ in light of the COVID-19.

Together with the Health Silk Road, the Digital Silk Road has also emerged as another essential focus of the BRI. Although the Digital Silk Road was first mentioned in 2015, it was not until 2019 when the BRI Report officially stated that "China will advance cooperation with other participating countries in the fields of roads, railways, ports, aviation, aerospace, oil and gas pipelines, power supply, and network communications, to achieve land, maritime, air and cyberspace connectivity. China will build a Belt and Road space information corridor together with other B&R countries."²⁹ Chinese technological advances in 5G digital infrastructure and other Internet-based industries will be highly appealing to many developing countries in need of affordable investments due to poor digital infrastructure, notwithstanding the reservations of many western governments on Chinese technological companies on national security

²⁷ Ngeow Chow-Bing, "COVID-19, the Belt and Road Initiative, and the Health Silk Road: Implications for Southeast Asia." Friedrich-Ebert-Stiftung Indonesia Office, October 2020.

²⁸ Asian Infrastructure Investment Bank, "Impact of the Coronavirus (COVID-19) and Its Implications for Infrastructure Priorities. AIIB Background Document." 25 March 2020.

²⁹ Office of the Leading Group for the Belt and Road Initiative, *The Belt and Road Initiative: Progress, Contributions and Prospects* (Beijing: Foreign Language Press, 2019), p. 53.

grounds.³⁰ The importance of the Digital Silk Road manifested again during COVID-19 pandemic, where an efficient digital infrastructure becomes unprecedentedly crucial to combat the coronavirus while maintaining a certain degree of economic activities and social normality.

Finally, China is likely to be more prudent in financing any new BRI projects after COVID-19, given the increasing economic fragility of many countries hit by the pandemic and the strained public finances of their respective governments. Some western media also claim that this is due to the geopolitical backlash against China.³¹ Nonetheless, even before the COVID-19, it should be noted that the “BRI 2.0” agenda has already indicated that China is committed to be more careful in evaluating projects, which will inevitably result in the slowing down of BRI financing. But, it should not be concluded that China will not commit to new BRI infrastructure projects. Ultimately, this will depend on how the interested governments will negotiate with China.

Summary of Part 1

The first part of this report reviews the origins and rationale, milestone and development, as well as the evolution and trends of the BRI. Both economic and geopolitical factors are part of China’s calculation in launching the BRI. The high-level commitment from the top leadership suggests that the BRI will continue to be China’s major foreign policy in the decades to come. However, the BRI is defined in a very flexible way, which allows the cooperation to be more country-specific and sector-specific to fit local conditions and circumstances. The centrality of infrastructure connectivity will remain, but following the Second BRF and the COVID-19 pandemic, China is likely to be more prudent in financing traditional infrastructure projects and will instead focus more on public health and digital infrastructure.

According to an OECD report, basic public infrastructure in Chile is already complete. Any new mega infrastructure project is likely to generate less returns compared to past projects. Instead, Chile is recommended to focus more on equitable access to this basic infrastructure, with greater input from the sub-national and local sectors to identify gaps in infrastructure needs.³² In cooperating with China on the BRI, Chile should identify and ascertain the gaps and weaknesses in infrastructure (be it in the traditional, digital, and/or public health spheres) that Chinese investment can address. If, and once a viable project is

³⁰ Robert Greene, Paul Triolo, “Will China Control the Global Internet via its Digital Silk Road?” *Carnegie Endowment for International Peace*, May 8, 2020. <https://carnegieendowment.org/2020/05/08/will-china-control-global-internet-via-its-digital-silk-road-pub-81857>

³¹ Jonathan Wheatley and James Kynge, “China curtails overseas lending in face of geopolitical backlash,” *Financial Times*, December 7, 2020. <https://www.ft.com/content/1cb3e33b-e2c2-4743-ae41-d3fffffa4259>

³² *Gaps and Governance Standards of Infrastructure in Chile*. OECD Report, March 2017.

identified, Chile should negotiate carefully with China about project financing and implementation. While infrastructure development will always remain an option, Chile should also consider the other policy areas of the BRI. Industrial park cooperation could be a good option, as it can serve to boost Chinese investments in the manufacturing sector of Chile. This can also help serve the goal of diversifying Chile's dependence on natural resources exports towards new export opportunities, especially in the manufacturing sector. As one of the countries in Latin America maintaining a very good relationship with China,³³ Chile is well positioned to be the Pacific country to guide China to join the Comprehensive and Progressive Trans-Pacific Partnership (CPTPP). Chinese leader Xi Jinping has signalled China's intention to consider joining CPTPP, after China has secured two major trade and investment agreements in late 2020 (the Regional Comprehensive Economic Partnership and China-EU Comprehensive Agreement on Investment). CPTPP will reinforce the trade goal of the BRI, but joining CPTPP will not be easy for China. Chile will be entrusted by China to play the role of facilitating China's membership in it.

³³ Juan Carlos Gachúz, "Chile's Economic and Political Relationship with China," *Journal of Current Chinese Affairs*, 41: 1 (2012), pp. 133-154.

Part 2: Research on the belt and road initiative case studies

Executive Summary

- The main take-away from the cases of East Coast Rail Link (ECRL) in Malaysia and the Vientiane-Boten Railway in Laos is: the agency of the host countries is crucial for foreign-backed infrastructure partnerships such as China's Belt and Road Initiative (BRI) projects. Although China as a more powerful country would always push its agenda in all partnerships, host governments can exercise agency in shaping the progress and outcomes of the BRI ventures, either by active initiation, passive delay, and/or proactive renegotiation.
- The presence of democratic institutions and open voices provide extra leverages for the host government to bargain with China. This is evidenced by the case of ECRL after May 2018, when the new government – with a popular mandate from the election – suspended the controversial deal, embarked on months-long renegotiation, and reached the revived deals with China in April 2019, with better terms in costs, local employment, and other aspects. For one-party countries like Laos, the absence of such internal attributes limits its leverage ability and space.
- While the top-down political will of using the railway to transform Laos from a landlocked to a land-linked nation has been a key factor contributing to a smooth progress of the construction and planning since December 2016, the project's various problems and uncertainties offers important lessons for the existing and potential BRI partners. These include issues surrounding financial sustainability, labour rights, and environmental quality.
- Industrial parks can be financially sustainable when the co-partners in the park project are commercially driven. For Malaysia, although some government support was used for the development of the infrastructure surrounding the park as well as financing a part of the extension of Kuantan port, the financial sustainability of the park is not dependent on continuous fiscal support from the government.
- The leverage that host countries have in the negotiation depends on their respective specific locational advantages. Indonesia used its nickel reserves to bring in a whole value chain of activities in steel production, including regional infrastructure development, to a less developed region in the country. Malaysia having no natural resource in steel production could only bring in efficiency-seeking Chinese factories that are seeking to export their excess production capacities.
- The economic outcomes of park activities depend on the performance requirements imposed on investors as well as local capacities to absorb technology and compete with Chinese suppliers. While it is more cost effective to use local workers, these workers must have the requisite skills to perform the necessary jobs. Training and up-skilling can take time due to language barriers. Likewise, the governance mechanisms, including laws,

rules, regulations, and their enforcement in host countries can affect outcomes in labour and environmental issues.

Case Studies

A. Cases Chosen and Justification

- The first criteria used to choose the cases are the financing modes. Given that equity and non-equity based financing are used for financing the BRI, we choose two separate sets of cases based on equity and non-equity financing.
- We also choose projects that allow cross-country comparisons to ascertain the impact of host economy policies on the project outcome.
- Infrastructure development is chosen, given BRI's focus on traditional infrastructure such as rail development. The ECRL in Malaysia and Laos-China HSR are two case studies used to represent infrastructure development.
- These two cases also represent **non-equity financing** for mega infrastructure projects that are high-cost, high-stakes, and long-term projects. Like rail connectivity ventures elsewhere, both projects are enormously costly: the US\$ 10.56 billion **East Coast Rail Link (ECRL)** and the US\$ 7 billion **Laos-China High Speed Rail (HSR)** are the most expensive big-ticket project in Malaysia and Laos, respectively.
- Both are potentially transformative at the national level, with developmental scope and stakes that extend beyond the immediate project itself. Because of their cross-state, cross-provincial nature, rail projects involve construction and operation sites that go beyond one single locality (unlike most other types of infrastructures).ⁱ They *connect* the developmental dots in each country, with all the synergies and complications that ensue. In addition to helping to improve spatial inequalities, the mega rail link projects are potentially transformative also in terms of reducing transport costs, stimulating sectoral development, integrating infrastructures, and creating cross-border competitive clusters as new engines of growth. The Laos-China HSR – seen by Lao elites as a “river of iron”, is driven by a goal to transform itself from a land-locked to a land-linked country by connecting directly to prosperity opportunities in China and the more developed parts of Southeast Asia. Similarly, the ECRL, which will connect Malaysia's largest transport hub Port Klang facing the Malacca Strait with the Kuantan and other ports facing the South China Sea, is in part motivated by an ambition to maximize the economic potentials of Peninsular Malaysia as a converging point between the Indian and the Pacific Ocean regions. Finally, both projects are long-term ventures in that they aim at catalyzing niche economy activities over the long run. Moreover, upon completion, railroads constitute near-permanent infrastructure which cannot be removed on a whim.

- These similarities notwithstanding, the 640-km ECRL and 414-km Laos-China HSR differ in several respects. While both standard-gauge projects are financed by Chinese loans and built by Chinese contractors, they involve different ownership and operation structures. The ECRL, owned 100 percent by the government of Malaysia through the Malaysia Rail Link (MRL), is run by a 50-50 joint-venture company between MRL and China Communications Construction Company Ltd (CCCC). The joint operation arrangements involve sharing of MOM costs, sharing of operational risk, as well as sharing of O&M expertise and technical know-how. The CCCC has no rights to extract minerals or objects of interest from ECRL land. The Laos-China HSR, by comparison, is operated by a 30-70 special purpose vehicle joint venture firm, which funds 40 percent of the project cost. The remaining 60 percent is financed through an Export-Impact Bank of China loan. Despite the HSR label, the speed of the Laos-China rail is not the typical 200-350 km/h, but 160 km/h for passenger train and 120 km/h for freight trains. Malaysia's ECRL, in comparison, is 160 km/h and 80 km/h for passenger and freight trains, respectively. The ongoing construction of the Laos-China rail project is scheduled to be completed in December 2021 whereas for the ECRL, it is December 2026.
- In combination, these similarities and differences provide a strong comparative to perform our three-point assessment, i.e. along the economic, governance, and environmental parameters, based on the framework developed in the next section. For instance, the projects' respective financing modes, resource allocation patterns, and developmental effects would be the focus of economic dimensions, whereas transactions surrounding land acquisition, labour rights, local engagement, and legal regulative matters would be the key aspects of governance. Environmental impacts and safeguards of both projects will also be examined.
- For equity investments, we use the example of industrial parks for the next two cases. Industrial parks are commonly used in developing countries as vehicles for industrial development through the provision of some common infrastructure support for a cluster of firms to locate within a specific geographical location and which will eventually lead to the generation of agglomeration economies. In particular, they can be used to attract foreign direct investment (FDI), especially for manufacturing activities. This is important for countries where the overall business and investment environment is weak and industrial parks are used to offer a better investment environment on a priority basis in a limited geographical area to attract FDI.
- Industrial parks are also used to host Chinese investments as a means of facilitating the export of Chinese excess production capacity and for the country to move up its GVCs, as explained in the economic rationales for the BRI in Part 1 of this report. These investments are then expected to generate employment and technology spill-overs that can foster a more rapid industrial development and agglomeration effects in the host economy, thereby providing a potential win-win situation for China and host economies.

- Industrial parks can facilitate Chile's diversification from natural resources towards manufacturing development, as suggested in Part 1 of this report.
- For industrial park developments, we use the example of the **Indonesia Morowali Industrial Park (IMIP)** and the **Malaysia-China Industrial Park (MCKIP) in Malaysia**.
- The Indonesia Morowali Industrial Park (IMIP) is private-sector led, though with considerable state support and it differs from the MCKIP in that it has a strong resource usage dimension. Indonesia used its rich nickel resources to foster manufacturing development in stainless steel (which requires inputs of nickel) within Indonesia. It demonstrates the importance of using natural resources for fostering a country's development rather than merely exporting the raw natural resources itself.
- The park operator also had to invest in complementary investments in surrounding infrastructure such as roads, and port to facilitate the import of intermediate inputs and export of stainless steel from the park due to the poor infrastructure in the location of the park.
- The MCKIP in Malaysia is unique as it is state-led and the only industrial park in the country given a national status. Four other key features are: The use of public-private partnership for infrastructure development of the park. The co-development of MCKIP and Kuantan Port are complementary infrastructure development that illustrate what World Bank has stated: "to maximize their impact, infrastructure projects should explicitly analyze and include complementary investments."ⁱⁱ The FDIs in manufacturing in the park can be used to illustrate the economic contributions of the park. Both park and port development are co-owned by a listed company in Malaysia.
- Both park developments are implemented in the less developed parts of Malaysia and Indonesia, thereby improving spatial inequality in each country.

B. Framework for analyzing cases

For the framework, we draw on the literature on the motivations for foreign direct investments (FDI), FDI sustainability and sustainable literature for equity-related BRI projects. However, not all BRI projects, especially the large infrastructure projects, are funded by equity financing. A considerable number are funded by non-equity sources of finance, including loans, be it from national or international sources. Due to their long-term, high risk nature, these mega infrastructure projects require a more holistic way for assessment that needs to consider their long-term nature and developmental spillovers. We therefore include the literature on assessments of mega infrastructure projects, including BRI projects for ascertaining the main variables to focus on for the discussion in each of these cases.

Based on the literature review, the three key dimensions for discussing cases are economics, environmental and governance, as shown in the following table.

Table 4. Dimensions for assessing cases

Key Dimensions	Features
Economics	● Financial sustainability ● Resource mobilization (including natural resources and strategic assets) ● Efficiency-seeking (including cost efficiency for lower labour costs, cost efficiency of localization and technology transfer, and export platforms) ● Entry into domestic market ● Developmental spillovers (for rebalancing development as in spatial inequalities)
Governance	● Transparency ● Stakeholder engagement ● Legal Compliance ● Labor/Human Rights issues ● Re-settlement issues
Environmental	● Low carbon/greenhouse gases footprint ● Bio-diversity/forest protection and restoration ● Energy efficiency ● Water and waste management

Source: Authors

Case 1. East Coast Rail Link (ECRL), Malaysia

The East Coast Rail Link (ECRL) project was launched in 2016. During the then Malaysian Prime Minister Najib Razak's visit to China in November 2016, the two governments signed the engineering, procurement, construction, and commissioning (EPCC) contract and a financing framework. The EPCC contract was awarded to China Communication Construction Company Ltd (CCCC), while the financing agreement was with the Export-Import Bank of China (China Exim Bank). Under the arrangements, China will carry out the detailed engineering and design of the railway, procure materials and equipment, as well as finance and build the 688-km rail link.

The standard gauge (1.435-metre) railway, which will be used for both passenger and freight transportation, will link Malaysian east coast states of Kelantan, Terengganu, and Pahang to Port Klang in the Greater Kuala Lumpur. Its estimated cost of US\$13.1 billion (RM55 billion, later projected to be RM65.5 billion) makes it Malaysia's largest and most expensive infrastructure project to date. Out of the various China-backed BRI projects in Malaysia (see Figure 3 below), the ECRL is also the most controversial one. This is because of its exorbitant price tag, lack of transparency, and wide perception that it is linked to Najib's 1MDB scandal.ⁱⁱⁱ

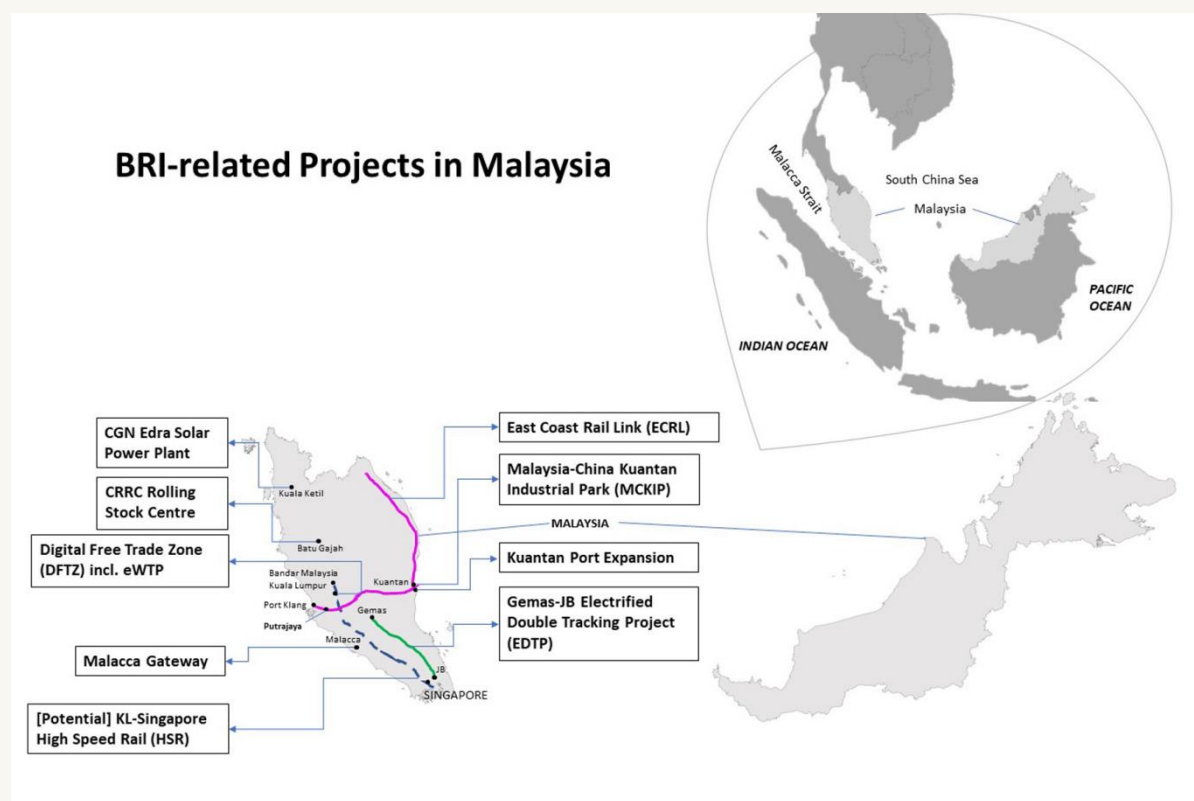


Figure 3: ECRL and other China-backed BRI Projects in Malaysia
(Sources: Kuik 2021)

The ECRL is also the most politically volatile developmental project, with changing terms under different federal governments in Putrajaya.^{iv} Under Najib's Barisan Nasional (BN) government, the project was described as a "game changer" that will boost development while nurturing compact residential districts and commercial centers along the planned stations.^v The project's prospect, however, was hit by the unprecedented regime change in 2018, when Mahathir Mohamad's Pakatan Harapan (PH) coalition defeated the BN in the stunning election in May. Once returned to power, Mahathir suspended the ECRL and two China-related pipeline deals (i.e. the Multi-Product Pipeline [MPP] and Trans-Sabah Gas Pipeline [TSGP]). The ECRL had since been renegotiated, led by Mahathir's long-time confidante Tun Daim Zainuddin.

On April 12, 2019, after months of renegotiations, Malaysia Rail Link (MRL), a wholly-owned subsidiary of the Minister of Finance Inc., signed a Supplementary Agreement (SA) with CCCC, which marked the resumption of the rail project. Under the renegotiated deal, the project cost was reduced from RM65.5bil to RM44bil, a 32.8 percent reduction. The new deal also involves a change in the project's southern alignment, i.e. bypassing Bentong and Gombak and instead rerouting the southern, Section C (from Mentakab to Port Klang) through Negeri Sembilan (see Figure 4). The total length of the rail link is reduced from 688 km to 640 km. Under the revived deal, CCCC will repay RM3.1 billion to Malaysia arising from the abortive work and cancellation of the northern extension of the project. The completion date was deferred to December 2026.

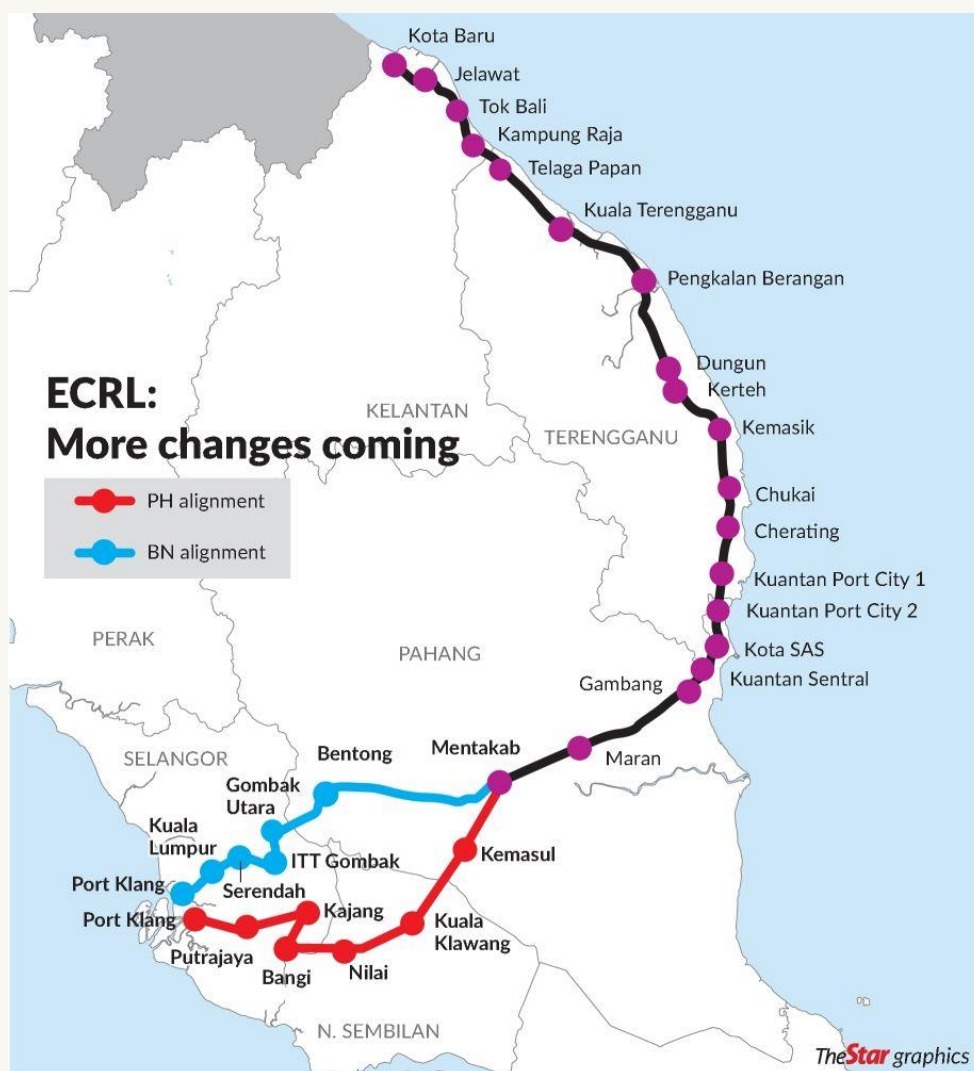


Figure 4: The Original and Renegotiated Alignments
(Source: *The Star*)

In March 2020, the PH coalition was replaced by Muhyiddin Yassin-led Perikatan Nasional (PN)-Plus government. While the PN-Plus government has decided to proceed with the ECRL,

it is reviewing Section C to revert to the original Gombak-Bentong route, potentially reversing the April 2019 renegotiated deal's decision on the southern alignment.^{vi}

Economic dimensions:

The 50:50 joint venture between Malaysia Rail Link (MRL) and China Communication Construction Company Ltd (CCCC) – an arrangement under the Supplementary Agreement (SA) signed in April 2019 – helps to enhance the long-term economic viability and sustainability of the project. Under the agreement, CCCC will participate in the operation and maintenance of the ECRL through the JV, while providing technical support and share the operational risks after the project's completion.^{vii} These serve the host country's economic ends because such an arrangement splits the operating and maintenance costs and risks evenly between the two countries, while allowing Malaysian entities to learn from the Chinese firm, the state-owned CCCC, the main contractor of the project.

The ECRL has been highly contested, especially before the 2019 renegotiated deal.^{viii} Aside from its 1MDB political baggage and transparency issue as noted, the project was questioned on economic grounds: economic viability, cost and financial sustainability, as well as local employment and resource mobilization. Skeptics such as economist Jomo Kwame Sundaram have repeatedly warned that the ECRL is potentially a white elephant that 'would impact the national economy for a long time', calling it a 'permanent albatross'.^{ix} In addition, the project's original costing of RM55 billion and its financing mode (85 percent of the costs to be financed as a Malaysian federal government-guaranteed loan from China Exim Bank to Malaysia) had drawn heavy criticism from the opposition and civil society organization. Critiques had also focused on the localization ratio of employees and resource mobilization.

These terms were noticeably improved after the 9-month long renegotiations. Under the revived deal, the cost was reduced by RM21.5 billion. The deal also stipulated that 40 percent of the civil works must be awarded to local contractors.^x Another agreement was signed between MRL and CCCC in November 2019 to prioritize Malaysians for job opportunities in ECRL, with 70 percent of the 23,000 workers designated for Malaysians.^{xi} In January 2021, MRL and CCCC reached an agreement to appoint local subcontractors and suppliers for at least 40 percent of civil works of the East Coast Rail Link (ECRL) project, excluding tunnelling works.^{xii}

These improvements show that, while China as a more powerful country would always push its agenda, Malaysia under the new PH government, with a popular mandate from the 2018 elections, has demonstrated its agency of the host country.^{xiii} As at 2021, the project is on track for completion by 2026. Despite the COVID-19, construction works for ECRL alignment in Section A (Kota Bharu - Dungun) and Section B (Dungun - Mentakab) are ahead of schedule.^{xiv}

Financial sustainability is also enhanced by several new elements of the renegotiated agreements (some elements will be discussed under "governance dimensions" below). Chief

among these is the introduction of the Economic Accelerator Projects (EAP), which include industrial parks, logistics hub and transit-oriented developments (TODs) along the ECRL corridor. These developments could potentially increase the demand for passenger and freight cargo for the ECRL by bringing in development to the region along the railway line. The length of the rail link was shortened by 48 km, but the scope expanded from four states (Kelantan, Terengganu, Pahang, Selangor) and one federal territory (Kuala Lumpur) to five states and two federal territories (adding Negeri Sembilan and Putrajaya, respectively). The total number of stations were reduced from 24 to 20 stations, of which 14 are passenger stations, five are combined passenger and freight stations, and one freight station. Rail freight is expected to account for 70 percent of the total revenue generated by the line, with the remaining 30 percent coming from passenger services. The new deal, as noted, also altered the original alignment by skipping the Bentong and Gombak, but traveling southward after Mentakab to Kuala Kelawang and Nilai in the state of Negeri Sembilan. The line is expected to reduce travel times between Kota Bharu and Putrajaya to around four hours. Both sides also restored the Bandar Malaysia that had been shelved in mid-2017. Bandar Malaysia is a Malaysia-China joint venture which will house the terminus of the proposed HSR line between Kuala Lumpur and Singapore.

The ECRL project has brought about education and learning opportunities for the youths in the less developed east coast states. The project main contractor, CCCC, has allocated RM23 million for training as part of its corporate social responsibility initiative. Since 2017, the company has collaborated with MRL and Universiti Malaysia Pahang (UMP) in offering the “East Coast Rail Link Industrial Skills Training Program” (PLKI-ECRL), which aims to train and equip up to 3,600 students from 2017-2022 with railway technology skills.^{xv} Hundreds of trainees have been enrolled in the degree, diploma, and certification levels program, with graduating students joining the ECRL contractor.^{xvi}

There are other economic benefits and spillovers, most notably rebalancing spatial inequality, integrating infrastructures, and connecting development dots across the country.

The ECRL is expected to help reduce inter-regional inequality, i.e. to bridge the developmental gap between peninsular Malaysia’s east and west coasts by linking the three less developed but ethnically Malay-predominant states (Kelantan, Terengganu, and Pahang) with the more developed areas around Greater Kuala Lumpur (i.e. Selangor, Negeri Sembilan, Kuala Lumpur, and Putrajaya). While current travel from the west to the east coast of peninsular Malaysia takes about 12 hours, the ECRL will shorten this travel time to 4-5 hours.^{xvii} The absence of an advanced land-based infrastructure linkage between the West Coast and the East Coast has long been viewed as the key factor contributing to the underdevelopment of the three East Coast states (Kelantan, Pahang and Terengganu). The idea of a railway connecting the East and West coasts was said to be first mooted in the 1980s when Najib served as the Chief Minister of Pahang.^{xviii}

As an East-West passenger and freight rail network, the ECRL is expected to provide freight and passenger transportation, attract investments along the railway corridor, spur commercial activities, boost tourism, and create significant employment opportunities. By so doing, the project is expected to serve as a stimulus for economic growth and development, especially in the East Coast Economic Region (ECER).^{xix} Figure 5 shows the site entrance of the ECRL Project Management Section 1 located in Kota Bahru, Kelantan (the northernmost state, and also the poorest among Malaysia's 13 states).



Figure 5: ECRL Project Management Section 1 (Kota Bahru, Kelantan)
(Source: Kuik 2019)

As a trans-state railway network, the ECRL also serves as a critical transportation link to connect the existing and emerging infrastructure hubs and economic centers across Peninsular Malaysia. These include those along the east coast facing the South China Sea (such as the Kuantan Industrial Park, Kuantan Port, Kemaman Port, and Kota Bahru near Malaysian-Thai border, see Figure 4 above), as well as those areas around the Greater Kuala Lumpur on the west coast facing the Strait of Malacca and the Indian Ocean. By linking key economic centers, the ECRL will over time create integrated transport and developmental hubs on both sides of the Peninsular Malaysia. This may maximize potential developmental dividends from Malaysia's unique geographical location between the Pacific and the Indian Oceans. Malaysian Investment Development Authority (MIDA), an agency under the Ministry of International Trade and Industry (MITI) is tasked to lead the implementation of Economic Accelerator Projects (EAP) along the ECRL corridors, has since 2020 used the term 'land bridge' to connect Port Klang (Malaysia's largest port) and the Kuantan Port (see Figure 6 below), where Malaysia-China Kuantan Industrial Park (MCKIP) and an expanded deep-sea port are being constructed (see Case 4 below). The land bridge may ultimately increase Malaysia's trade

activities and allow ‘alternative maritime trade entry’ carrying both cargo and passenger traffic.^{xx}

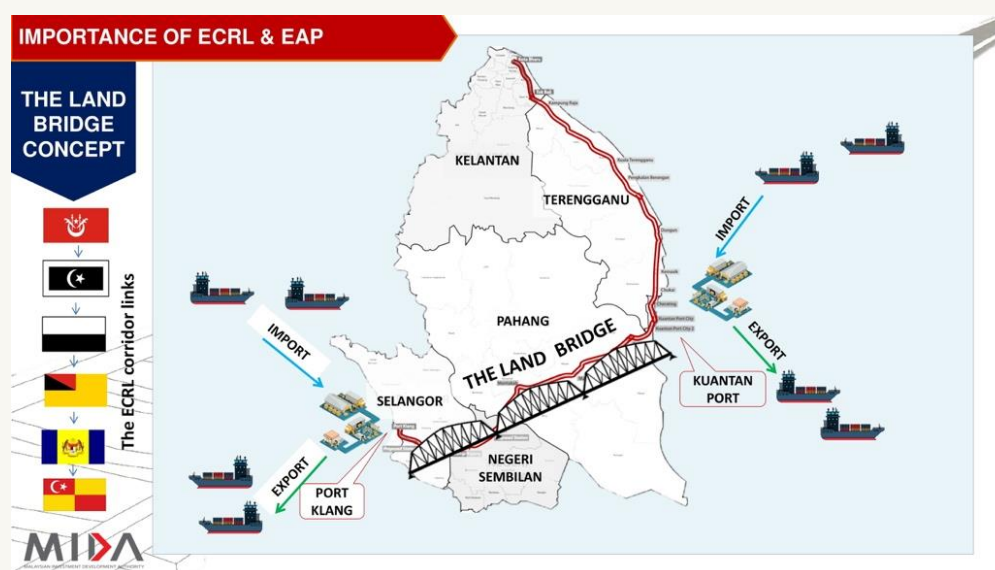


Figure 6: The “Land Bridge” Concept of ECRL

(Source: Malaysian Investment Development Authority (MIDA))

The benefits of integrating and synergizing these developmental projects are potentially enormous. Ideally, once all these projects (ECRL, MCKIP, Kuantan Port Expansion, and other programs under the ECER) are completed or better developed, ships can unload their goods at Port Klang, transport through ECRL to Kuantan Port, and from Kuantan Port to China and other countries. In the 2020 Budget announced in October 2019, an additional RM69.5 million funds were allocated for Kuantan Port-related projects, indicating the PH government’s acknowledgment of the synergy between these BN-era projects.^{xxi} The close relationship between the three China-backed projects (ECRL, MCKIP and Kuantan Port expansion (KPE)) can be illustrated through the major shareholders and contractors involved. Both MCKIP and the KPE are owned by the same companies. The main contractor carrying out the KPE, China Harbour Engineering Corporation (CHEC) is a fully owned subsidiary of CCCC, the contractor for ECRL. Hence, rather than seeing them as three separate projects, they are mutually complementary ventures aimed at creating synergy between the industrial park, port and overland transport, thereby positioning Kuantan as a major China-ASEAN trade and logistical hub.

Governance dimensions:

The renegotiated deal has, by and large, improved several governance scores: mainly on administrative controls, stakeholder engagement, and to some extent, transparency. Due

mainly to the push of the host country, there has been a more institutionalized effort for risk-sharing. By expanding the roles of CCCC from a builder to also a partner in the operation and maintenance of the ECRL, the new arrangement allows the host country to benefit from CCCC's technical support while sharing the operational risks after the project's completion. In addition, there has also been a greater degree of local involvement, a higher level of bureaucratic involvement, a better coordination between federal agencies and state governments, as well as a clearer and mutually beneficial division of duties between Malaysian authorities and the Chinese SOE.

Malaysian Investment Development Authority (MIDA) has been tasked by the PH government as the coordinating agency for the ECRL development. As part of the 2019 revived agreement, MIDA and CCCC signed an MoU to stimulate the development of corridors along the ECRL. In July that year, MIDA announced the establishment of an ECRL Unit as a dedicated contact point to facilitate and promote the development of the Economic Accelerator Projects (EAP) along the ECRL corridors.^{xxii}

Under the MoU, both sides collaborate to facilitate, evaluate, and review the implementation of EAP. MIDA will identify and assist interested Malaysian companies to cooperate with CCCC to develop industrial parks, logistics hub and transit-oriented developments (TODs) along the ECRL corridor, which includes a mixture of housing, office, retail and other amenities. The role of CCCC is to undertake feasibility study, development planning, marketing strategies, including investment into the project, while MIDA will facilitate the provision of suitable land for project development.

As land policy is under the purview of the state authorities handling land matters, namely State Land and Mines offices, conditions are to be imposed depending on the category of land being applied for, and the land reserved for natives and *Bumiputera* cannot be owned by foreigners.^{xxiii} Thus far, MIDA has engaged the relevant states as well as the interested parties through seminars and business events to encourage companies to take part in the EAPs, although MIDA has not disclosed the sectors and companies involved at this stage.

A national-level committee, the ECRL Steering Committee, chaired by the Chief Secretary to the Government of Malaysia, the highest-ranking officer of the public service, was established to monitor and facilitate the inter-ministerial coordination and implementation of the ECRL-related projects.^{xxiv} Its membership consisted of the State Secretaries of the state governments involved (Pahang, Selangor, Negeri Sembilan, Terengganu and Kelantan).

The committee is supported by five subcommittees.

These bureaucratic agencies and mechanisms play a key role in building inclusive institutions at the federal-state level, i.e. between the central government in Putrajaya and the state-level authorities of the five states traversed by the ECRL. Some of these are ruled by the opposition parties. These institutionalized arrangements also provide stability to the project: the ECRL

and related programs have been continued even after Mahathir's PH was replaced by Muhyiddin's PN-Plus as the federal government in March 2020.

A weak spot in governance aspects of ECRL is resettlement. For instance, a contentious issue that arose from the PH government's new southern alignment was the impact of the project to the settlements of *orang asli* (indigenous people) in Negeri Sembilan. There are 14 *orang asli* settlements along the alignment, two are directly affected by the alignment, namely Kampung Orang Asli Bukit Jenuk in Sepang, Selangor and Kampung Orang Asli Lumut in Seremban, Negeri Sembilan.^{xxv} The new alignment has also led to opposition from orang asli community in Kuala Langat Forest Reserve in Selangor.^{xxvi}

Environmental dimensions:

Various environmental justifications have been associated with the ECRL. The railway project is expected to reduce greenhouse gases as it will reduce the heavy traffic in the Karak-Bentong highway, which is the main route connecting the east coast states of Kelantan, Terengganu and Pahang with Selangor and Kuala Lumpur. The expected reduction in traffic congestion has made the ECRL an important element in the Green Technology Master Plan of Malaysia 2017-2030, which targets a 40% share for public transport in urban areas by 2030.^{xxvii}

The PH government's 2019 realignment, which will skip Bentong and reroute to Negeri Sembilan, produced divergent reactions that invoke different environmental concerns. For those who support the original north-based alignment including Najib, the new proposed alignment defeats the purpose of the ECRL to reduce the heavy traffic in the Karak-Bentong highway.^{xxviii} However, the proponents including Mahathir has defended the new alignment, arguing that the ECRL can play a more effective role in rail and air connection through the south-based alignment because the new route is better connected to the Express Rail Link (ERL), which is the main rail transportation to the administrative centre of Putrajaya, as well as the MRT2 Sungai Buloh-Serdang-Putrajaya rapid transit line.^{xxix}

The new alignment won praises from environmentalists including the Malaysian chapter of the World Wildlife Fund (WWF).^{xxx} The Environmental Impact Assessment (EIA) carried out in 2017 for the project estimated that a total of 45 tunnels as well as 27 wildlife crossings will be needed for the completion of the ECRL. The new alignment, which will abort the originally planned northern extension (from Mentakab going northwest to Bentong in Pahang and then southwest to Gombak in Selangor), involves less tunnelling. By avoiding the construction of a 17.8km tunnel from Bentong to Gombak, it will protect important geological heritage such as the 16km Klang Gates Quartz Ridge. However, the proposed route from Mentakab to Jekebu (in Negeri Sembilan) may harm the mega-biodiversity Titiwangsa Mountain Central Region located at the Pahang-Selangor-Negeri Sembilan.^{xxxi}

In August 2020, it was reported that the ECRL Steering Committee discussed the possibility of reverting the rail project to its original alignment, which is strongly advocated by politicians from BN, who are currently the component parties of the PN-Plus government.^{xxxii} Wee Ka Siong, the BN Minister of Transport, is leading the study on the viability of reverting the Mentakab-Port Klang line to its original alignment.^{xxxiii} However, the proposal has been opposed by the Selangor state government, which is led by the PH coalition, as the original alignment will pass through the water catchment areas in Selangor. Instead, the Selangor government has suggested Jenjarom in Kuala Langat in the southern part of Selangor to be the alternative location.^{xxxiv}

MRL, the ECRL project owner and the EPCC contractor, will establish its Health, Safety and Environment Department to ensure compliance to all relevant environmental requirements. In addition to supervising the contractors to ensure compliance to environmental requirements, the department will monitor the environmental performance and engage with relevant authorities on environmental related matters.^{xxxv}

Case 2. Laos-China High-Speed Rail (HSR)

The 414-kilometre Laos-China High-Speed Rail is a standard-gauge (1.435 metre) railway project that connects Laos' capital Vientiane and the northern border town of Boten (opposite the Chinese town Mohan in Yunnan Province). From Boten, the railway will be linked to China's Kunming through a separate rail line, thereby connecting Laos, and eventually also other Southeast Asian countries, to China's vast HSR network.^{xxxvi}

The Vientiane-Boten railway project is the signature BRI project in Laos. Other China-backed developmental projects in Laos include special economic zones, hydropower, mining, and agricultural projects. Figure 7 below shows the locations of the HSR and selected BRI-related projects in Laos.

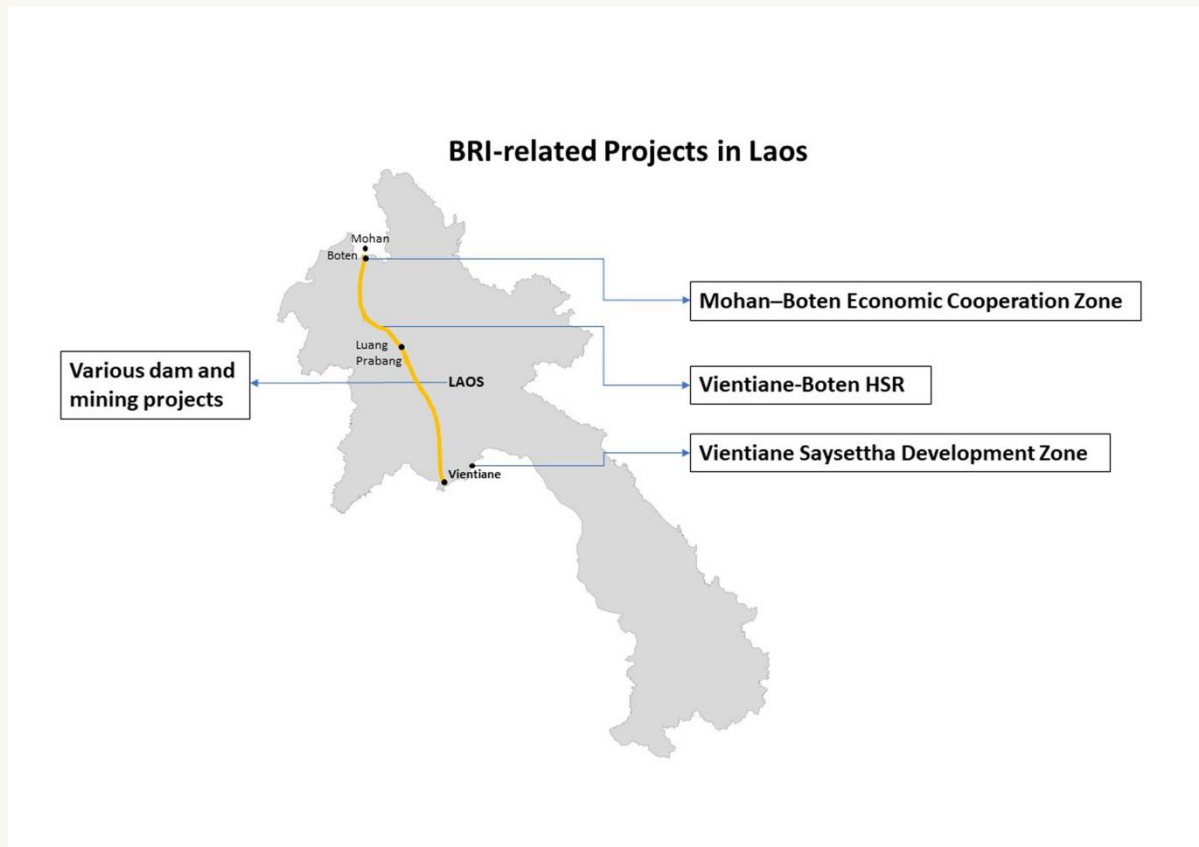


Figure 7: Laos-China Railroad and selected BRI Projects in Laos

(Source: Authors)

The Laos-China HSR project is characterized by three main features. First, it was more a result of small-country pull than big-power push. That is, it was Laos that took the initiative to explore the partnership with China. In the early 2000s, Lao leaders proposed to their Chinese counterparts that they should collaborate in constructing a rail line in the land-locked country.^{xxxvii} The timing coincided with China's 'going-out strategy' (走出去战略), aimed at encouraging Chinese firms to invest overseas, promoting intra-regional links, and accessing natural resources. China subsequently undertook a feasibility study of the Laos rail project. In 2009, Laos and China agreed to pursue bilateral negotiations over the project. In March the same year, Laos also collaborated with Thailand to launch its first railroad, a 3.5 kilometre extension of Thai state railway network, linking Vientiane's Thanaleng station to Nong Khai, a city in northeast Thailand.

Second, the HSR, which would allow domestic passenger and freight use, is the most expensive infrastructure development project in Laos, a least-developed country (LDC) with less than 7-million-population. In October 2012, when the Laos National Assembly approved the HSR project, the government proposed a US\$6.8 billion loan from the Export-Import Bank of China (China Exim Bank), a state-funded and state-owned policy bank, to finance the project. This is an enormous amount for a country with a GDP of US\$9.4 billion in 2012.^{xxxviii} The high cost is

in large part because of the engineering difficulties of the colossal project, due to the mountainous terrain and numerous river valleys in northern Laos.

Third, the HSR project is a highly controversial venture. This is attributable not only to the concerns over the project's high price tag and its financial sustainability, but also because of the perceived lack of transparency and equality as well as labour and other implementation problems surrounding the project. Like several other China-backed ventures in Laos, the HSR project is an intense but unequal partnership because of its financial and related terms. Under the bilateral Memorandum of Understanding (MoU) signed in April 2010, the two countries formed the Laos-China Railway Joint Venture Company, with 30% owned by Lao state railway and 70% by Chinese state-owned firms. A 22-page document submitted to the Laos National Assembly in 2012, China's loan would be guaranteed by all of the income and assets of the railway, and two unspecified mining areas.^{xxix} These are likely to increase Lao's dependency on its big neighbour to the north, especially as China emerges as the top investor and second largest trading partner of Laos in the recent years.^{xl}

These controversial issues and other governance sensitivities appeared to be among the reasons why, although the MoU was inked in 2010, it was not until late 2016 that the construction began. The lengthy period indicates a difficult negotiation process with China and an arduous decision-making process within the ruling Lao People's Revolutionary Party (LPRP). Given the party-state political structure and the lack of openness in the country, a full picture of the situation is difficult to obtain. Based on open sources and fieldworks, there were disagreements between Laos and China over worker arrangements, social and environmental impact, and loan details such as the interest rate.^{xli} A high-level party decision in 2011 led to a postponement of the project because of concerns over the terms of the contract, including on the hiring of a massive number of Chinese workers.^{xlii}

Despite these issues, Lao authorities eventually decided to proceed with the project that would use Chinese technical standards and equipment. The ground breaking ceremony was held in December 2016 in Luang Prabang, kicking off the construction. Political logics prevailed over the concerns for financial sustainability, economic viability, and other risks. Development and economic growth are the principal source of the ruling LPRP's political legitimacy and survival. Laos is the only landlocked country in Southeast Asia. It has a tiny domestic market and limited tax bases. The LPRP leaders see a north-south railway connecting Laos with China and the developed ASEAN markets as an 'iron river' that can transform Laos into a land-linked nation, thereby bringing developmental opportunities and changing the economic future of Laos.^{xliii} Driven by performance legitimization, Lao's leaders pushed forward the HSR project with an eye to improving transport connectivity, attracting investment, and stimulating growth in multiple sectors. According to Laos's 8th Five Year National Socio-Economic Development Plan (2016-20), the Laos government has identified the construction of large-scale infrastructure projects, particularly railways, hydropower dams, and mines as the central part of the national strategy to elevate Laos out of being a 'Least Developed Country' (LDC).^{xliv}

By the end of 2020, the project is 90 percent completed.^{xlv} All 75 railway tunnels, 164 bridges, and other structures have been constructed, with 57 percent of the total length of rail track laid and installed. Since the outbreak of COVID-19, anti-epidemic “green customs clearance” has been implemented to ensure the needed engineers and materials are continuously sent to the construction site. The entire project is on track to be completed in December 2021.^{xlvi}

Economic dimensions:

The Laos-China Railway Company, as noted earlier, is a joint venture (JV) with a 30:70 ownership split between Laos and China. The China Railway Group, a Chinese state-owned enterprise (SOE) and one of the biggest construction company in Asia, is the lead firm of the Chinese consortium in the JV. China Exim Bank provides the loans and additional financial support for Laos’ equity stake.

The financing arrangements for the project were spelt out in the build-operate-transfer (BOT) concession agreement signed between the Government of Lao PDR and Laos-China Railway Joint Venture Company in December 2016. Under the agreement, the total investment of the project is US\$5.95 billion, and the equity/debt ratio is 40:60 percent. Of the 40 percent equity, 70 percent will be provided by China (US\$1.67 billion) and 30 percent by Laos authorities (US\$715 million). Of the Laos financial commitment, US\$465 million will be financed with loans from China Exim Bank, and the remaining US\$250 million from Laos’ government budget.^{xlvi} The loans from China are on concessional terms: 2.3 percent interest over 35 years, with a five-year grace period.^{xlvi}

Several projected economic benefits and developmental spill-overs have been highlighted by Lao authorities and international financial institutions. These range from reducing the time and costs of transportation, to stimulating the development of agricultural, industrial, tourism, and logistics sectors, and to attracting investment and trade, promoting regional connectivity and integration, facilitating economic diversification, and rebalancing spatial inequalities. The north-south railway, which will run from northern Laos towards the capital and through the provinces of Luang Namtha, Oudomxay, Luang Prabang, and Vientiane, is expected to integrate second tier cities with the main urban and production centers. This, in turn, will have effect on the labour market and other aspects of Lao developmental ecosystem.

Lattanamong Khounnivor, the chairman of the Laos-China Railway Project Management Committee, said that the railway ‘will facilitate Laos’s ability to transport goods around the region faster and “about three times cheaper” than today’.^{xlix} The train, which can travel at up to 160 kilometres (100 miles) per hour, is expected to cut travel time between Vientiane and Boten from three days to three hours. The former deputy prime minister of Laos, Somsavat Lengsavad, who reportedly played a key role in negotiating hydropower dam deals and promoting the HSR deal (including pushing through a special session of Lao National Assembly in 2012 to approve the deal), said that the rail project ‘will boost the Lao economy because

many investors are now looking for a production base [in Laos]’ and that the reduced transportation costs will make Laos ‘more attractive to investors’.ⁱ

International institutions generally concur with these assessments, while emphasizing the needs for complementary reform policies. An IMF report in 2019, for instance, acknowledged that the railway project ‘carries substantial benefits for the region at large and has a potential for generating significant positive economic spillovers to Lao P.D.R.’s economy from regional transit trade, tourism, logistical services, agricultural exports, and integration of the manufacturing production in the regional supply chain.’ The report added that ‘reaping the potential economic benefits from this mega-project requires stepping up and frontloading complementary reforms’, which ‘will help to mitigate risks by generating sufficient cashflows for the railway project to meet its associated debt service payments.’

This sanguine outlook is shared by a recent World Bank report. It noted that the railway could provide Lao PDR with ‘a land link’ to global and regional supply chains, which could make the nation more attractive to investors, create new jobs, and accelerate economic growth. The report similarly stressed the importance of complementary reforms and effective policies, which are needed to improve Lao business and trade environment, facilitate well-targeted infrastructure investments, as well as ‘lower land transport costs and attract traffic that is currently using maritime and air transport routes.’ⁱⁱ The World Bank observed that once reform policies are in place, the transit trade along the railway corridor will present ‘a significant opportunity’ for Laos to increase its bilateral trade with China (from 1.2 million tonnes in 2016 to 3.7 million tonnes by 2030), while capturing a small portion of maritime trade between China and Thailand, Malaysia, and Singapore (by shifting an estimated 1.5 million tonnes of trade from maritime transport to the railway). These, in turn, would have a strong impact on the railway’s operations and sustainability, aside from modernizing Lao logistics services industry and boosting its tourism sector. Passenger traffic is expected to account for a big portion of train traffic by 2030.ⁱⁱⁱ

These positive prospects notwithstanding, there are concerns over the project’s financial sustainability and debt issues. According to Lao economist Phouphet Kyophilavong, the JV would be under heavy pressure especially in its early operation stages to pay principal and interest on a cash flow shortfall of RMB25.99 billion.ⁱⁱⁱⁱ An IMF report in 2013 warned that the costly project would result in Laos’ external debt to peak and exceed 60 percent of GDP for the next decade, with the ratio of debt service to revenue exceeding the 20 percent threshold in 2021 and remaining elevated for the entire projection period.^{lv} More recently, a report by ADBI in September 2020 observed that the debt to GDP ratio for Lao PDR has not dropped below 35 percent, or the IMF and World Bank’s recommended level for a country with a similar profile to Lao PDR. The report opined that if Laos had not taken on the BRI-related debt, then it would have a ratio of around 20 percent, ‘leaving ample room for limited additional borrowing to focus on key areas such as health and education, and other targets as set out in the UN Millennium Development Goals.’^{lv}

In addition to high price tags and high debt exposure, the project also involves the use of underground mineral resources as loan guarantees. Mining concessions are granted to China as a collateral: if the revenues from the railway were too low to service the debt, the lender would have the rights to mineral extraction as an additional means of securing repayment.^{lvi} The Laos government has also made tax concessions, which include waiving import duties on imported Chinese equipment associated with the project. These are likely to reduce the benefits accruing to Laos.^{lvii}

In terms of resource mobilization, the railway project is expected to boost Laos' agricultural and mineral exports such as potash, copper, and gold.

Labour has been a major issue. Some reports indicate that the estimated 30,000 workers on the rail project are "predominantly" Chinese, presumably because Chinese firms favoured Chinese workers over Lao workers.^{lviii} There has been a relatively small number of local workers, and a lack of Lao companies contracted to take part in the construction.^{lix} According to Scott Morris, the JV has actively sought to hire local workers. The Lao Ministry of Labour and Social Welfare statistics reveal that as many as 7,112 local workers are employed, but this represents only 24 percent of the total workforce for the project, well below the local hiring practices in Africa.^{lx}

Labour exploitations and conflicts appear to be a prevalent problem. A recent doctoral study by University of Wisconsin-Madison's Wanjing Chen suggests that the problem is rooted in the unequal power relations between Chinese state capital, private capital, and workers; and sparked by funding shortage and delayed payments, as explained below.^{lxi}

According to Chen, the 2016 agreement between Lao government and China established a hierarchical structure of interlocking contractual relations between the project participants.

Below the Laos-China Railway JV, six positions of the Engineering-Procurement-Construction (EPC) are taken up by branch companies of Chinese SOEs, each assigned to supervise and coordinate construction of their designated railway sections. They further allocate components of construction to a group of Chinese enterprises and suppliers, who undertake de facto construction on the ground.^{lxii} Under the financial arrangements agreed by both governments, the JV would receive credit from all shareholding parties of the railway and China Exim Bank, which would then be distributed to downstream EPC contractors and private enterprises.^{lxiii} Laborers on the ground would then receive their wages.

The problems emerged when the government failed to deliver much of the promised credit, leading to multi-scalar financial turmoil. To ensure construction progress amid a funding deficiency, the Chinese enterprises and suppliers had to use their own capital to finance construction. The financial ramifications trickled down to the ground, resulting in delayed and denied wage payments. As Lao construction workers sought to resist this exploitation, many of them were gradually replaced by their more vulnerable Chinese counterparts. Some of the Chinese laborers continued to desperately wait for their paycheck; and some engaged in

protest, only to find themselves being sent home and replaced by new batches of workers who, like their predecessors, were in the dark about the project's funding situation.^{lxiv} While these individuals are often blamed for taking away jobs from the locals, they are probably the worst-hit victims of the top-down financial turmoil.^{lxv}

Governance dimensions:

The entangled financial ramifications exposed old problems underlying governance in Laos: the country's poor fiscal and administrative capacities. They also created new issues: the Lao government's difficulty in scrambling together equity had led China to alter its loan conditionality. Considering the prospect that the Lao authorities might never be able to fulfil the equity requirement as originally designed, China Exim Bank re-adjusted the ratio between cash capital and land assets in equity composition, agreeing to accept more of the latter. The JV was thus asked to select additional valuable land parcels along the railway and propose them to the Lao state to hold as equity for the loan.^{lxvi}

There are other governance issues, particularly transparency, stakeholder engagement, and resettlement issues. Much of these are chiefly attributable to the authoritarian nature of Lao political system, as well as the practice by China's state-owned entities, which tend to rely largely on local standards than on social safeguards employed by global financial watchdogs.

As a communist-ruled state with no independent media and very limited civil society groups, the Lao one-party political system is characterized by high power concentration and weak institutionalized checks-and-balances. Decisions and dealings are often made through political power and personalized networks. Policy disagreements among party elites and officials are usually aired behind closed doors. Such a system impedes a culture of transparency, discourages open expression of views, and suppresses bottom-up resentments from the society, including over resettlement and other issues.

For ordinary Lao people, the main issues surrounding the railway project have been resettlement, land acquisition, and adequate compensation for individuals and communities adversely affected by the project construction. While the Lao PDR government Decree on Compensation and Resettlement Management in Development Projects ('Decree 84') provides the basis for addressing these issues, the challenges lie on implementation problems, financial limitations, and the lack of robust social safety standards.^{lxvii} Scholar Oliver Tappe observes that many families had been displaced by the project but could not afford to move because of belated compensation payments. The government's negligence, coupled with the harassment by land investors and security forces, have all contributed to local resentment. The land-buying activities of the politically well-connected elites, who take advantage of their advance information, have further broadened the scope of marginalized local communities and deepened the scale of bottom-up resentments.^{lxviii} The compensation rates fall short of World Bank social safeguard standard; complaints were partially addressed; and evictions

proceeded before compensation was settled. The absence of independent evaluation and independent grievance mechanisms did not help the situation.

Much of these problems are attributable more to the Lao state's governance capacity than the Chinese investors; and the stereotype of Chinese capital holders being predatory, powerful land-grabbers as portrayed by the media is questionable. A recent study with grounded approaches indicates that, the reality is more complex: 'the Lao state and some local communities have proven highly adept at obstructing, resisting, even exploiting Chinese investors.'^{lxix} However, China's state-owned and state-linked entities are becoming more aware of the needs for stakeholders engagement and image building in Laos. Entities like China Exim Bank have displayed efforts to engage project stakeholders and the public, albeit with varying degrees of enthusiasm and success. Perhaps the most representative effort is the 5-year Mahosot hospital project, with China providing financial and technical support to expand the 107-year hospital in downtown Vientiane, build new medical facilities, and donate modern equipment to all wards of the 600-bed general hospital, which is expected to be completed in 2021.^{lxx}

Procurement is a key governance issue where the practice of Chinese contractors still falls short. A Washington DC-based think-tank report observes: the procurement process of the railway project is biased in favour of Chinese firms, mainly because China Exim Bank is providing financing and the financing is concessional. China's current practice reinforces skepticism among potential BRI partners, shutting opportunities for competitive bidding, and raising questions about China's vision of making the BRI a truly multilateral initiative.^{lxxi}

Environmental dimensions:

The Laos-China HSR, like many other large-scale infrastructure projects in developing countries that involve a wide scope of land use, entails relatively high environmental risks for a variety of reasons. These include a weak local environment law, a lack of well-regulated safeguards in the host country, loose monitoring, weak enforcement, and commitment gap of foreign partners. These problems may bring about negative impacts on natural habitats, agricultural areas, as well as water and resource management.

Regulating and mitigating the environment risks is within the purview of national and sub-national authorities. However, in countries where local standards and practices of regulations remain weak like Laos, the operational policy of foreign partners would play a key role. According to Scott Morris, while China's official finance generally has moved towards clearer and stronger environmental and social safeguards (ESS), its key financial institutions have mixed records of practices in their countries of operation.^{lxxii} China Exim Bank, which references World Bank ESS standards in its environmental policy, is at the forefront of Chinese institutions in adopting more stringent standards in its cross-border activities. However, its policy apparently only requires environment impact assessment (EIA) for the project it funds, but does not require it to publish the assessment. This was evident when an EIA cited by the

media as the reason for early delays in the Laos-China HSR project, was not released by China Exim Bank. Morris adds that it is also difficult to assess the extent to which the bank is rigorously evaluating national laws and standards in practice. The bank's operational policy is often vague, relying on 'should' vs. 'shall', and lacking concrete, time-bound commitments for actions.^{lxxiii}

Deforestation, biodiversity, and ecosystem stability are among the major environmental concerns associated with the Vientiane-Boten railway project. The project involves building access roads to and from the rail, as well as alongside the rail line, along Laos tropical forest landscapes. This brings about spill over effects such as indirect fragmentation due to land cover conversion (e.g. the Nam Kan National Park in Bokeo Province and similar areas in Luang Mantha).^{lxxiv} According to a study by Brookings Institution, these new roads and rail access to frontier forests with "medium" prior development typically leads to deforestation and eco-service losses, at least in the short term.^{lxxv} Some researchers observe that because the railway runs through the landscape where developmental frontiers are located, its construction can affect the surrounding soil, air and water environment, the landscape and ecological system, energy efficiency, and human health, especially in urban areas and sensitive regions.^{lxxvi}

There are signs of environmental mitigation measures by China's builders in undertaking the construction of the railway. For instance, the China Railway No. 8 Engineering Group (CREC-8) adhered to 'strong support, fast closure, and frequent survey' principles to traverse the shallow depth sections, weak rock sections, and multiple faults, as well as overcome work face collapse, water and mud inrush, high water inrush pressure, deformation of soft rock, high ground temperature and rock burst. In order to effectively minimize the impact of water gushing on tunnel construction, the CREC-8 project branch installed reverse-slope drainage cables, reverse-slope drainage pumping stations, and drainage pipes for drainage operations at the construction site.^{lxxvii}

Summary of contributions of the two railway projects

This section provides a summary of contributions of the ECRL and Laos-China HSR projects along economic, governance, and environmental dimensions as set up by Table 5.

Economically, notwithstanding concerns about financial sustainability and other related issues, both the ECRL and Laos-China HSR are expected to bring about transformative developmental benefits to Malaysia and Laos, respectively, once their constructions completed and operations take off. Because of their cross-state scope and transnational sites beyond one single locality, they entail economic spillovers beyond the project itself. They are likely to cultivate and catalyze niche economy activities over the long run, as discussed above. By integrating infrastructures and connecting the developmental dots in each country, both railway projects are expected to help improve spatial inequalities, shorten travel time, reduce

transport costs, stimulate sectoral development, and potentially create cross-border competitive clusters as new engines of growth. The ECRL, as a land bridge connecting Port Klang (Malaysia's largest port and transport hub facing the Malacca Strait) with Kuantan and other ports (facing the South China Sea), promises to maximize the economic potentials of Peninsular Malaysia as a converging point between the Indian and the Pacific Ocean regions once the projects are completed. The Vientiane-Boten railway – seen by Lao elites as a 'river of iron', will transform the least developed nation from a land-locked to a land-linked country, connecting it directly to prosperity opportunities in China and the more developed Southeast Asian countries. Over time, a better integrated economic and infrastructure is likely to attract more foreign and domestic investments to further stimulate commercial, logistic, import and export, as well as tourism development activities along the proposed rail alignment in both countries.

Governance wise, the two railway projects show different trajectories and performance. While resettlement, transparency, labour, and other issues continue to manifest throughout the planning and construction stages of Laos-China HSR, there are signs of progress on some of these areas in the case of ECRL after the 2019 renegotiation deal between Malaysia and China. For instance, transparency and stakeholder engagement are improving following the resumption of the project and subsequent institutionalization efforts (ECRL Steering Committee and MIDA's roles). This is a contrast to the case of Laos-China railway project, where transparency and stakeholder engagement remain problematic. Engagement and communication with the public and the community are limited; concerns over the influx of Chinese workers remain, and concerns about resettlement and compensation linger on.

On environmental front, both projects share similar issues resulted by the building of railways, which involves a wide scope of land use. These include deforestation, biodiversity, and ecosystem stability. Tunnelling and other construction activities, for instance, lead to soil erosion and forest clearing; and there are concerns about impact of soil erosion and sediment on water quality, water supply, and flood risks in certain areas. There are signs of environmental mitigation measures by China's contractors for example: planned reforestation at Forest Reserve areas. However, the builders' exact compliance with EIA is unclear, and the host governments' ability of monitoring remain loose and weak.

Table 5. Summary of contributions of the two railway projects

Features	ECRL in Malaysia	Laos-China HSR in Laos
Economics		
	Strengths	Strengths
● Financial sustainability ● Resource mobilization (including natural resources and strategic assets) ● Efficiency-seeking (including cost efficiency for lower labour costs, cost efficiency of localization and technology transfer, and export platforms) ● Entry into domestic market ● Development spillovers (for rebalancing development as in spatial inequalities)	● Renegotiated deal in 2019 reduced total cost, with efforts to enhance financial sustainability (through transit-oriented development along the ECRL corridors, involving CCCC in maintenance and operation of the railway thereby sharing risks) ● Acquisition of local resources; increased employment of local workers; increased appointment of local subcontractors and suppliers at least 40% of civil works (excl. tunnelling) ● Integrating infrastructures and synergizing developmental projects across Malaysia; offering training and educational opportunities, chiefly through CCCC's collaboration with MRL and a local university in offering the "ECRL Industrial Skills Training Program" ● Rebalancing spatial development between east and west coasts of peninsular Malaysia ● Potential investments when ECRL and related projects are realized	● The railway will transform Laos from a landlocked to a land-linked country, connecting this least developed nation to global and regional supply chains, making it more attractive to investors, creating new jobs, and accelerating economic growth ● Potential developmental benefits include generating positive economic spillovers in terms of regional transit trade, tourism, logistical services, agricultural exports, and integration of the manufacturing production in the regional supply chain. ● Complementary reforms are needed in order to reap the potential economic benefits from this mega-project ● In addition to increasing bilateral trade with China, the railway, once completed in December 2021, is expected to capture a small portion of maritime trade between China and Thailand, Malaysia, and Singapore ● The above will have a positive impact on the railway's operations and sustainability, as well as modernizing Lao logistics services industry
	Weaknesses	Weaknesses
	● Use of local labour is less than imported labour ● Technology transfer to local firms is uncertain	● Financial sustainability has been a key concern since the very beginning, chiefly due to the big loan (relative to Lao GDP) and Lao

		fiscal capacity ● Labour exploitation has been a recurring problem; concerns over the level of the use of local labour
Governance		
● Transparency ● Stakeholder engagement ● Legal Compliance ● Labor/Human Rights issues ● Re-settlement issues	● Transparency improved after the 2019 renegotiation deal and subsequent institutionalization efforts (ECRL Steering Committee and MIDA's roles); more information available through MIDA and Hansards (i.e. the transcripts of parliamentary debates) ● Some enhanced engagement with stakeholders, mainly via MIDA's interactions with local firms; engagement with the public and community remain limited ● Compliance with domestic regulations need to be improved ● Concerns over the influx of Chinese workers ● Resettlement issues especially those affecting Orang Asli (indigenous people) in Negeri Sembilan and elsewhere	● Transparency remains a key issue. Public and local community are not privy to the planning and implementation ● No reported stakeholder engagement with the public ● Concerns over compliance issues with domestic regulations ● Poor communication with the public and the community ● Concerns over the influx of Chinese workers ● Serious concerns about resettlement, land acquisition, and low compensation rate
Environmental		
● Low carbon/greenhouse gases footprint ● Bio-diversity/forest protection and restoration ● Water and waste management	● Compliance with EIA, but monitoring and compliance is deemed to be weak in Malaysia ● Tunnelling and other construction activities lead to soil erosion and forest clearing; planned reforestation at Forest Reserve areas ● Concerns about impact of soil erosion and sediment on water quality, water supply, and flood risks in certain areas	● Rail construction, which involves a wide scope of land use, raises concerns about environmental impacts, especially when Chinese SOE's environmental policy and compliance with EIA is unclear ● Main environmental concerns over deforestation, biodiversity, and ecosystem stability ● Signs of environmental mitigation measures by China's builders

Source: Authors

Case 3. The Indonesia Morowali Industrial Park (IMIP)

The Indonesia Morowali Industrial Park (IMIP) is a private-sector led, or a business-to-business venture with no government guarantees. In 2009, Bintang Delapan Mineral (BDM: 25 percent) initiated a joint-venture with Shanghai Decent Investment (SDI: 75 percent), a company in the Tsingshan Group, to build and co-manage the park.^{lxxviii} BDM was first established as a subsidiary under Bintang Delapan Group, for the extraction of nickel ore minerals. Within two years after its first mining exploration in 2007, Bintang Delapan Mineral succeeded in obtaining two mining licenses from the government that consist of nearly 47,000 Ha.^{lxxix} The license is significant as nickel is an important input for the production of stainless steel. Indonesia is estimated to have around 24 percent of the world's nickel ore reserve, mostly concentrated in Central, South, and Southeast Sulawesi provinces. It is also the largest nickel producer in the world. Given its importance and scarcity, China wanted to access adequate reserves of nickel for its industrial production of steel in order to insulate Chinese steel companies from fluctuations in international nickel prices.

Tsingshan Group is a stainless steel-making company that was founded in Wenzhou, China's Zhejiang Province. In 2016, Tsingshan Group became the first privately-owned company in Wenzhou with a turnover above RMB100 billion.^{lxxx} In 2018, the company's turnover reached RMB226.5 billion, winning Tsingshan Group 361st place on the Fortune Global 500.

The subsequent joint venture is used to support the government's push towards the development of the downstream industry, based on the Indonesian Government Regulation No. 4/2009.^{lxxxi} Accordingly, the IMIP uses the nickel ore that is extracted to produce steel, especially stainless steel, a niche product in the steel industry in Southeast Asia.^{lxxxii}

The park is located at in Bahodopi, Morowali district, Central Sulawesi Province (Figure 8). Since it is located in the less developed part of Indonesia, in an area that was mostly covered by forest, the park facilities had to build from scratch, including roads, power plants, water treatment, and sewage systems, seaport and airport. Shanghai Decent reportedly spent at least US\$5 billion to develop the supporting infrastructure for the park.^{lxxxiii}

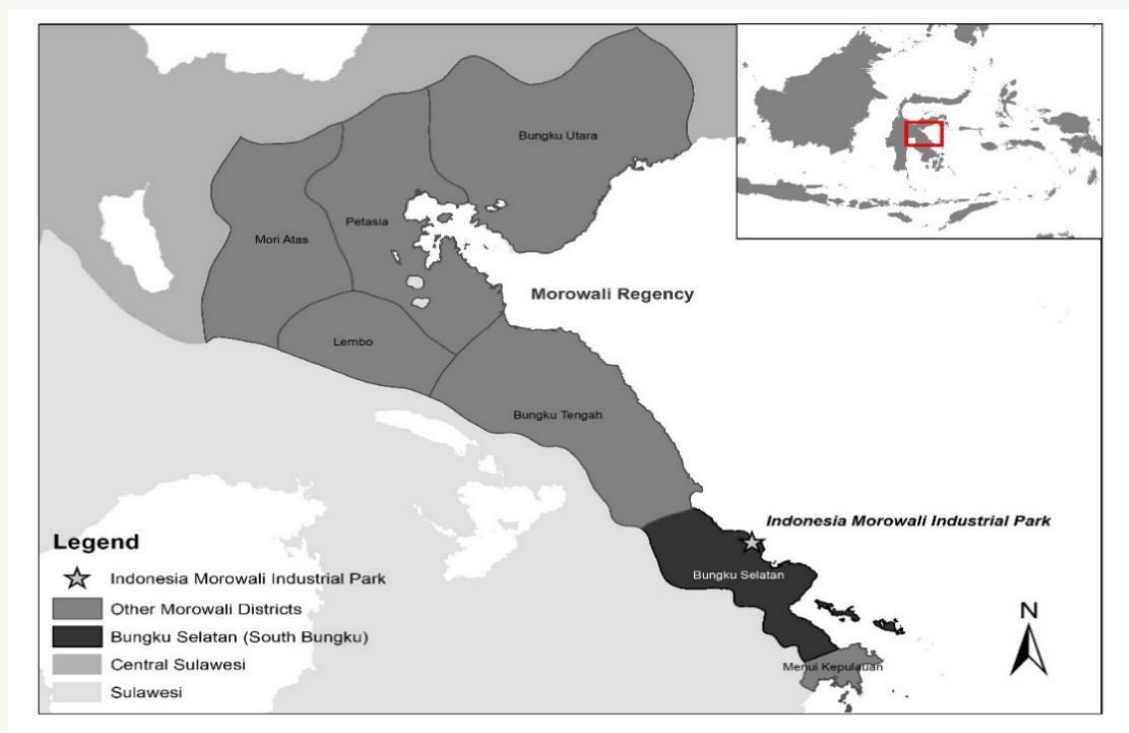


Figure 8: Map of Morowali Regency, Central Sulawesi Province

Source: Tham and Dharma, 2020

Despite its private status in Indonesia, there is considerable government support as it is endorsed by the leaders of both countries. In Indonesia, it was granted the status of a national strategic project (PSN).^{lxxxiv,lxxxv} This legal status provided the park full support from the central and local governments to accelerate infrastructure development and the issuance of relevant operational regulations. It also paved the way for the IMIP to start its construction while waiting for the building construction permit to be issued. The government further banned nickel ore export in 2020 to ensure sufficient supply of raw materials for the Park's manufacturing operation.

Economic Dimensions:

China's support came in the form of financing: the project had easy access to mid- and long-term financing. In the early days of the project, policy banks including China Development Bank, the Export–Import Bank of China, and state-owned Chinese banks including Bank of China pitched in with mid- and long-term financial support. HSBC Indonesia later structured a loan solution specifically for the park, including trade finance-related working capital loans and accounts receivable services, resolving the problem of guarantees for loans. HSBC was the first foreign bank to work with Tsingshan Group on the project.^{lxxxvi}

The IMIP, which began construction in 2013 on 2,000 Ha of land, “hosts nickel mining industries from cradle to grave; from mining to smelter and end products for export to China”.^{lxxxvii} The tenants in the park include smelter plants producing nickel pig iron, factories producing stainless steel, carbon steel, and high carbon ferrochrome, a coal-fired power plant, lime plant, coke plant and acid plant.^{lxxxviii} Based on the 2017 Annual Report of the park,^{lxxxix} the tenants in the park have collaborations between Indonesian and Chinese investors. There are no reported tenants from other countries.

The park can produce three million tonnes of stainless steel slabs a year.^{xc} Exports have increased, thereby increasing the contribution of the region to the central government’s tax revenues through export taxes. The IMIP has become a globally-significant base for nickel extraction and metallurgy and stainless steel production. It has also indirectly created opportunities in business, services, and real estate, and has propelled local industrialization. Morowali has now become a main income driver for the Central Sulawesi province.

By 2019, the employment at the park is close to 35,000 Indonesian workers, many of whom came from other parts of Indonesia and China, to work in the park.^{xcⁱ}, ^{xcⁱⁱ} The park does have human capital development programs. The difference in work skills of the Indonesian and Chinese workers is reflected in the occupational differences between these two groups of workers in the factories. Most Indonesian workers hold blue collar jobs while the Chinese nationals hold white collar positions such as engineering, financial and management positions.^{xcⁱⁱⁱ} Training is therefore provided to upskill the Indonesian workers. The Morowali Metal Industrial Polytechnic was built to improve the local human capital, by providing diploma courses in Machine Maintenance Engineering, Electrical and Installation Engineering, and Mineral Chemical Engineering.^{xc^{iv}} This includes the establishment of a Stage 1 Innovation Centre, which is part of Indonesia’s plan to establish a Metal Based Mineral Innovation Centre at the park.^{xc^v} As in the case of Malaysia, there is the intention to train the local workers to replace the Chinese workers over time.

Governance dimensions:

There are no resettlement issues but there are labour issues: As in other host economies, the use of Chinese workers is contested. The actual number of Chinese workers is not known, with great variations in anecdotal evidence, ranging from about 3,000^{xc^{vi}} to 7,000.^{xc^{vii}} Since the park is located in an originally agricultural region, local farm workers did not have the skills set for mining or manufacturing activities. This led to the import of workers from other parts of Indonesia as well as China, creating a discord between some of the local and foreign (Chinese) workers as the latter is perceived to be hired illegally and given higher wages, which added fuel to the anti-Chinese sentiments held by some in the country.^{xc^{viii}} The wage disparity between Chinese and Indonesian workers, even after adjusting for occupational differences has been noted by other researchers in their field work.^{xc^{ix}} There were also alleged labour malpractices in the mining operations with respect to the termination of contracts, working hours per day, sexual harassment and low wages. This contributed to strikes and protests,

which were supported by workers from trade unions, even though the park employees are not unionized due reportedly to the absence of collective bargaining agreement in the IMIP.^c Workplace abuses supposedly included the Chinese workers in the mines. These protests were also noted in other media, where the number of Chinese foreign workers in Indonesia became a contentious issue in the election campaign trail in 2019.^{ci} The negative sentiments against Chinese workers was also manifested during the COVID-19 pandemic with restrictions imposed by some local governments against the movement of Chinese workers.^{cii}

Corporate Social Responsibility (CSR) programs at the park include the development of the surrounding areas in agricultural development and animal husbandry to supply to the IMIP, sewing and garment making to supply workforce clothing and small business development to supply local snacks to the company. An annual CSR allocation for electricity subsidies and public procurement of health, education, and social activities (including building mosques) was reported from 2013 to 2017. Unfortunately, this allocation as well as the extent of CSR activities is deemed inadequate and there is also a misunderstanding on the purpose of the allocation.^{ciii} Apparently, the community views the allocation as part of their income, which is not the purpose of the CSR allocation. The allocation is instead intended to provide social assistance and business stimulus to the community. This led to the expectation of a cash distribution from the CSR allocation, which contradicts the intent of the funds. There is a need for better communication between the community and the park owners on the intentions of the CSR allocation. The misunderstanding is in part attributed to the community's perception that the company has to be held responsible for the environmental problems that has emerged in the region, namely deforestation, flooding, air pollution, disruption of water sources and public health problems.

Environmental Dimensions:

The environmental problems associated with deforestation in Indonesia, have been going on long before the arrival of the Chinese investments at the park. As reported by Supriatna, J. et al. (2020), most of Sulawesi's pristine lowland forests had been lost nearly two decades ago.^{civ} The arrival of small scale nickel mining operations began in Morowali in the late 2000s, had led to floods due to indiscriminate deforestation. In general, the documentation of environmental degradation in terms of deforestation, floods, air and water pollution, sea pollution and incidences of respiratory infections^{cv} in the region reflect the country's overall weak environmental governance. Indonesia's ranking in terms of the Environmental Performance Index (EPI), is 116 out of 180 countries for the year 2020, compared to Malaysia (68).^{cvi}

It should be noted there is no substantive evidence on the contribution of the IMIP to all these environmental issues as there are other companies, including small and large local companies operating in the region. Apart from deforestation due to mining activities, there are also other activities that can impinge on the environment such as legal and illegal logging, oil palm plantations, as well as corruption which leads to violations and disregard of the environmental

laws. Indeed, all projects in Indonesia have to undergo environmental impact assessments (EIA) before investment approval, including the IMIP. But, the regulatory authorities have also admitted that the EIAs can be flawed, as it is considered as a mere formality, while the monitoring capacity is inadequate in view of the large number of permits issued.^{cvii}

The IMIP also reported in its annual report that it has obtained various accreditation such as the accreditation from the Ministry of Environment and Forestry of Indonesia, ISO 9001 accreditation in management of nickel processing factory and steam power plant in June 2017 as well as the OHSAS 18001 for occupational health and safety for nickel processing factory and steam power plant in November 2017.^{cviii} Small scale interviews conducted by some researchers^{cix} and the company's annual report in 2017 indicate that the company is taking measures to address environmental concerns, including for example waste water management, and the disposal of toxic waste. Unfortunately, there is also no documented independent and comprehensive review on the environmental impact of the IMIP on the region and the surrounding community.

The IMIP and its partners have also recently started the construction of a plant to produce battery-grade nickel chemicals for electric car batteries. Environmental concerns over the safe disposal of the tailings or the waste from battery nickel factories continue to be raised in the media as Indonesia considers increasing the production of battery nickel for the electric vehicle supply chain, with protests and resistance from the local communities.^{cx} These concerns clearly show that better environmental management, including communication with the affected community and the public at large is needed.

Case 4. The Malaysia-China Kuantan Industrial Park (MCKIP)

The MCKIP was launched in 2013 as part of the *First Five Year Program for Economic and Trade Cooperation (2013-2017) between Malaysia and China*.^{cx} It has a twin park, the China-Malaysia Qinzhou Industrial Park in China. Qinzhou is located in Guangxi^{cxii} which has a vested interest in collaborating with Malaysia due to its ambitious Beibu Gulf Economic Region programme, which includes opening up to ASEAN.^{cxiii}

A joint-venture was forged between Malaysia (51 percent) and China (49 percent) to develop the MCKIP. In the Malaysian consortium, IJM Land holds 40 percent equity while Kuantan Pahang Holdings Sdn. Bhd. and Sime Darby Property together hold 30 percent and the Pahang State Government holds the remaining 30 per cent. IJM Land is part of the IJM Corporation Bhd, which is a large local conglomerate, dealing with construction, property and infrastructure development, manufacturing and quarrying. It is listed on the main board in Malaysia's stock exchange. Hence, the Malaysian consortium is represented by a mix of private-federal and the state of Pahang.

China's consortium consists of two provincial state-owned enterprises (SOEs), namely China Guangxi Beibu Gulf International Port Group (CGBGIP) (95 percent) and Qinzhou Jinqu Investment Company Ltd (QJIC) (5 percent). CGBGIP was established in Nanning in 2007, dealing primarily with the construction and operation of ports, railway and roads. QJIC, was established in 2012, wholly-owned by the Qinzhou City Development and Investment Group Co Ltd, and which belongs to the Qinzhou City Government. It is involved in the operation and management of state-owned construction assets. Qinzhou City is well-known for its petrochemical and equipment making industries and has a development pattern characterized by energy, paper-making, metallurgical, cereal and oil businesses.

The Park is divided into three plots of land (Figure 9). The first two plots of land (MCKIP 1 and 2), covering about 2,500 acres is earmarked for heavy and medium industries while the third plot (MCKIP3) is used for mixed developments such as light industries, warehousing, logistics, residential and integrated service center.

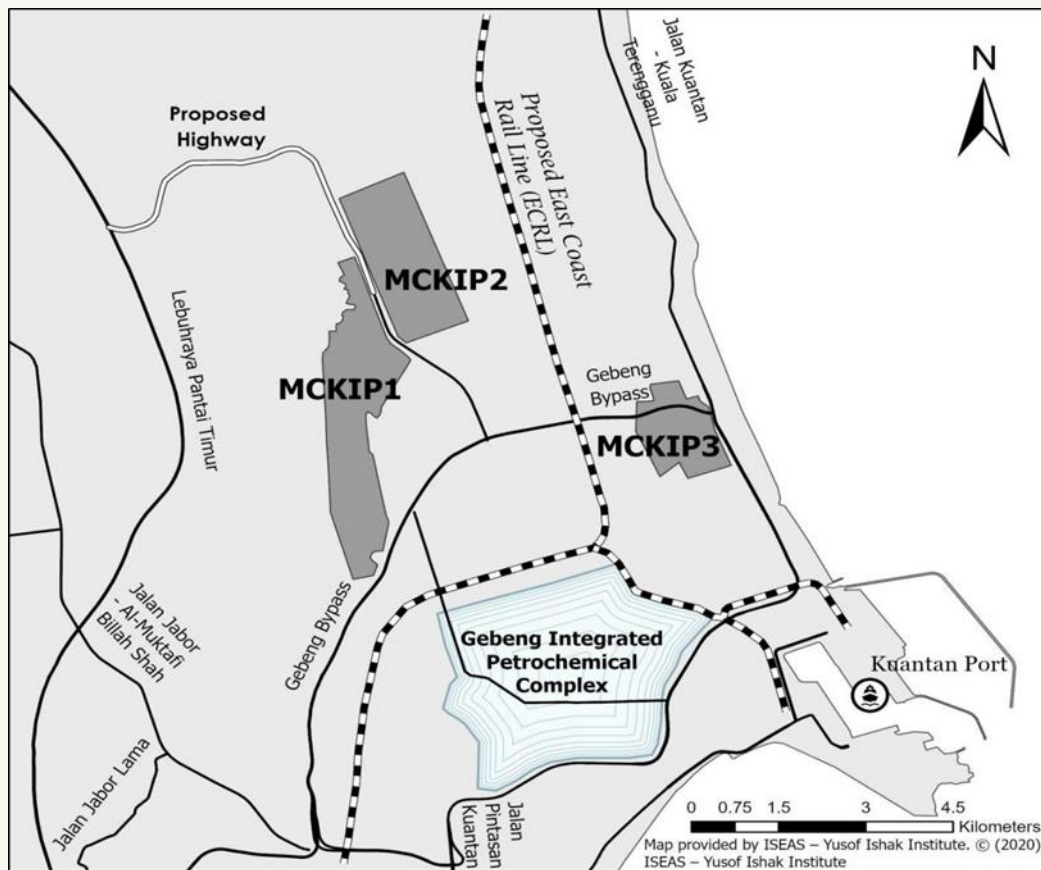


Figure 9. Malaysia-China Kuantan Industrial Park

Source: Tham and Dharma 2020

Economic Dimensions:

The park is developed concurrently with the expansion of the Kuantan Port (Figure 9 above), with the same park owners managing the port and its expansion, thereby creating synergies for complementary development.^{cxiv} The park provides hinterland activities (manufacturing) that feeds the demand for traffic at the port via imports of intermediate and capital inputs for the factories at the park. At the same time, the port provides the external connectivity needed for the park activities, which have mandatory export requirements. Malaysia's relatively small domestic market also encourages the use of the park as an export platform for the park's investments.

Considerable government support was provided for the park and port development due to the national status of the park while the port is one of the seven federal ports in Malaysia. Although the port is privatized, the federal government holds a special rights share in the port, whereby equity sale of the port has to be approved by the government. Both transactions took place during the Najib administration which actively promoted the developments of the park and port as both are located in his home state, Pahang, which is in the less developed east coast of Peninsular Malaysia. Federal support, for example, came in the form of a financial package for the development of the primary infrastructure in MCKIP. This includes the construction and upgrading of a direct road linking the park to the port, as well as the necessary water, electrical and telecommunications infrastructure to support the development of the park. Special incentives are also offered to selected approved investors in the park such as 100 percent tax exemption of up to 15 years, which is five years more than the usual tax-free incentives. Kuantan port's expansion was also supported by the federal government as RM1 billion was spent for the construction of a new 4.7 kilometre breakwater to provide a sheltered harbour for the port as it is not a natural port.

The Malaysian partner in the park development, as a listed company, used local financing for the park development as it has a strict policy of borrowing domestically in ringgit for its domestic projects. In the framework agreement for the development of the park, a loan was provided by China Development Bank Construction for the Chinese partner.

As at end 2019, the park has attracted 10 committed projects with a total investment of almost RM18 billion (USD 4.3 billion) and is expected to create 20,000 jobs for the locals in the area.^{cxv} The largest investor there is Alliance Steel (AS), a wholly Chinese owned enterprise producing steel at the park.^{cxvi} Since Malaysia does not have the raw materials needed for steel production, unlike the case of Indonesia, AS's investment in MCKIP represents the export of excess capacity and technology to the developing world for the production of steel, 80 percent of which is meant for export to the rest of Southeast Asia. AS's greenfield investment of USD1.4 billion is expected to contribute towards employment, skills development, technology transfer and increasing exports of steel to meet the infrastructure demand in the region. Other notable investments from China include battery and tyre production, which complements the Chinese investment (Geely) in the automotive sector. The COVID-19 pandemic and the lockdown in 2020 and again in January 2021 have delayed the production of tyres and batteries from the park as well as the realization of other approved investments at the park.

For Alliance Steel, since the factory is semi-automated, local workers have the opportunity to be trained to use modern equipment and learn new processes through on-the-job training. There were no mandatory local content requirements at the time of investment approval, with the exception of export requirements. But local content must be at least 40 percent to enjoy preferential policies of the ASEAN Free Trade Agreement for export to other ASEAN member states. Malaysian Investment Authority (MIDA), the investment approval agency, focused more on the value of investments, exports, and jobs created for investment approvals at that time, although this is changing over time. The long term developmental goals of the country in terms of skills development and technology transfer is left more to market forces rather than direct state intervention. In part, this is difficult to measure and track. According to AS, there is the intention to hire more local workers as they become more skilled. But that may take some time as local workers who may not know Mandarin^{cxvii}, have to learn to communicate in Mandarin with their supervisors and read the Chinese manuals.

There is greater concern over opportunities for the local small and medium enterprises (SMEs) to be learn from AS as suppliers because this can be a source of technology transfer.^{cxviii} During the construction period, RM1 billion worth of construction work was reported to have been given out to local SMEs.^{cxix} In terms of steel production at AS, apparently the technology gap between the local SMEs and AS's technology has hindered the outsourcing of intermediary inputs to local SMEs. Local SMEs have to upgrade their technology to meet the standard of AS, in order to participate in the value chain of AS.

Governance Dimensions:

IJM as the co-park operator and a listed company, prioritises its communication with its shareholders. The development of the park was made known only to its shareholders at shareholders' meetings. Public engagement on the development of the park and the investments in the park were restricted to media announcements on the FDI brought in by the Park. The main investor in the Park, Alliance Steel, did not engage with the public during the construction of the factory. This lack of communication with the public during the construction of the factory contributed to a lot of misunderstanding with the locals. The perimeter constructed around the AS factory to protect the assets of the factory was, for example, likened to the "Great Wall" of China.^{cxx} Efforts have been made to improve its communication with the public after the change of administration in 2018. Hence, the factory (and all the incoming factories) has to communicate with the public, including the locals, on its contributions towards the local community and sustainability measures. Enhancing transparency in its communication with the public as well as researchers and the media will improve the relationship between the investor and the public at large. Researchers and media, especially host country researchers, can help to lend light to the contributions of the investments to the country through their publications, thereby reducing unnecessary animosity with the locals.

There are no resettlement issues as the land used for the development of the park was not occupied. AS's factory was constructed with the use of imported Chinese workers, to facilitate the speed of construction, which started in November 2016 and began trial production by December 2017.^{cxxi} The plant has a capacity of producing 3.5 million tonnes of steel annually. There are some media reports indicating resentment from the locals with the influx of Chinese

workers.^{cxxii} However, local workers were hired once production started in 2018. Free meals and lodging is provided for workers at the plant.^{cxxiii} Reportedly, by 2020, there are 4,592 employees, of which 2,600 are locals. The operations of the factory and workers are governed by the labour laws of the country. Unemployment is relatively low in Malaysia at about 3 percent (2019), and even though labour is not unionised, there are no reported labour issues at the MCKIP nor at Alliance Steel. But, it should be noted that trade union activities in Malaysia are generally subdued and weak. Additionally, there has been no independent research on the workers' (including Chinese workers) welfare at the factory since access to the factory is restricted.

Compliance to local laws includes compliance with all domestic regulations as well as mandatory reporting as required by the authorities at the time of approval of investments.^{cxxiv} This includes for example, in the case of AS, the type and quantity of steel produced, sold domestically, and exported since another concern is the impact on the local steel producers. AS is blamed by the Malaysian Iron and Steel Industry Federation (Misif) for the losses incurred by the local steel industry in the first three quarters of 2019.^{cxxv} These issues require transparency, data and information from AS for verification. The steel factory has to release data and improve transparency to resolve the resentment and accusations from local steel producers.

Environmental Dimensions:

Environmental impact assessment (EIA) is part of the project approval process. However, the execution of this mandatory requirement can be hindered by the availability of experts, budgets as well as effective public participation.^{cxxvi} In particular, large mega projects with vested political interests and rent-seeking behaviour are at risk of using the EIA as a mere formality.^{cxxvii} Post development monitoring and enforcement is also weak.

According to Alliance Steel, there are waste management measures, especially carbon capture to reduce air pollution from the factory.^{cxxviii} It has also been reported that there is comprehensive treatment of the waste water from the entire steel mill.^{cxxix} To minimize pollution, IJM Corporation (the main developer of KPE) took the initiative to install a conveyor belt at the New Deep Water Terminal that will later connect the Kuantan Port to an iron and steel plant belonging to Alliance Steel, which improves productivity as it helps move both heavy and light materials (such as iron ore and coal) to and from Kuantan Port to Alliance Steel. By connecting the storage area to the vessels, the 700-metres conveyor belt minimizes cargo spillage from the stockpile to the wharf area.^{cxxx} But as in Indonesia, there is no independent comprehensive monitoring and assessment nor review on the sustainability measures at AS.

As for the Malaysian park co-owner, IJM as a listed company has to abide by the sustainability requirements of Bursa Malaysia which requires annual reporting on the sustainability governance and measures taken by the company. The annual report of listed companies, including IJM, therefore lists all the measures taken for the year to meet sustainability targets.^{cxxxi} IJM has also announced a no deforestation, no peat, and no exploitation policy in 2019.^{cxxxii} It should be noted that in the case of MCKIP, IJM treats its investments and sale of industrial land at the park as part of its property development, whereby the industrial land sold is under the jurisdiction of the owner and it is the factory owner that has to meet the

compliance on sustainability issues. This can be seen in the non-reporting of sustainability measures at the park as opposed to the sustainability reporting of Kuantan port, of which it is also co-owner, in its annual report under the infrastructure division of the company.

Summary on the contributions of the industrial parks in Indonesia and Malaysia

In the economic dimensions, both parks are financially sustainable, being commercially driven (Table 6). For Malaysia, although some government support was used for the development of the infrastructure surrounding the park as well as financing a part of the extension of Kuantan port, the financial sustainability of the park is not dependent on continuous fiscal support from the government.

Resource mobilization differed in the two parks as Malaysia could tap on government funding and equity sale of an existing port for complementary infrastructure development. Since infrastructure in Sulawesi is virtually non-existent, the Chinese investor had to provide all the basic infrastructure development for the park to be fully functional. In turn, the presence of nickel, which is highly valued by the Chinese investor, is used by the Indonesian authorities as a bargaining chip for drawing in Chinese resources, including for the development of basic infrastructure at the location of the park.

Both parks attracted Chinese investments in steel making which contributed towards increased employment and opportunities for training for local workers. These investments are geared towards export rather than the local market, although some percentage is permitted to be sold in Malaysia's domestic market. The investments also meet the desire for China to export its excess production capacity, especially in steel production. Prospects for cluster development in Malaysia remains to be seen as all the approved investments have not been realized at the time of writing this report and the park is still seeking for additional investments. The park in Indonesia is focused completely on the entire steel value chain, from nickel mining to steel production. However, local Malaysian steel producers are concerned that domestic sales of AS's steel product can negatively impact their market share.

Developmental spillovers are present in both parks since they are located in the less developed region in each country. Technology transfer in the form of training and human capital development are made available, especially in Indonesia with the establishment of a polytechnic. Both countries are concerned with the use of foreign Chinese workers and would like to see increasing localization. It may take some time to build up domestic capabilities to replace skilled and semi-skilled Chinese workers as the pace of technology transfer is impeded by the language barriers because the supervisors communicate in Mandarin and the manuals are in Chinese. The potential for greater spillovers through technology transfers to local firms remain to be seen in Malaysia due to the technology gap between local SMEs and suppliers from China. This indicates the need for local human resources upgrading to fully capitalize the technology spillover from BRI projects. If local human resource condition remains as it is, it will be difficult to match the imported labour as well as imported intermediate inputs from China in terms of technology and pricing since Chinese SMEs are much larger than the local SMEs, implying greater economies of scale are more likely to be reaped on the Chinese side. The Malaysian authorities did not seize the opportunity to lock in greater local content at the

investment approval stage, leaving it to market forces to determine the extent of local content. In the longer term, Indonesia aspires for technology transfer through the establishment of a full-fledged innovation centre for mineral research at the park.

For governance, reports of alleged workers' abuse, involving also the Chinese workers, at the mines in Indonesia indicate the need for better governance. Transparency is an issue in both parks as stakeholder engagement with the community and public was not prioritized. This led to misunderstanding and suspicion on the factory's presence, which is compounded by the large influx of Chinese workers, who are linguistically and culturally different. Both parks need to improve communication with the local community and the public on their activities and contributions to the community and host economy. Visits from local researchers and the local media should be encouraged as they can assist in the dissemination of information to the local community and public at large through their writings. In the case of Malaysia, compliance to local regulations need to be improved.

In the environment dimension, both countries require mandatory EIA for project approval, but these can be perfunctory, especially for mega projects, where corruption can intervene in the process since transparency is lacking in many instances as evidenced in the case of the ECRL in Malaysia. Although the corruption perception index of Malaysia (51/180) is ranked higher than that of Indonesia (85/180), both are far below Singapore (4/180) for the year 2019. Monitoring and enforcement is weak in both countries making it difficult to assess if the EIA plans in both countries are properly implemented.

Environmental management needs improvement in both parks, especially for nickel mining and the disposal of waste in the IMIP. Although the companies in both parks have their own plans and activities for managing the environmental impact of their production, independent assessments can assist when monitoring and enforcement is weak.

Table 6. Summary of contributions of MCKIP with IMIP

Features	MCKIP in Malaysia	IMIP in Indonesia
Economics		
● Financial sustainability ● Resource mobilization (including natural resources and strategic assets) ● Efficiency-seeking (including cost)	● Strengths ● Financially independent of government, project is commercially driven ● Acquisition of strategic asset to complement park activities, namely the Kuantan port, which is strategically located. ● Park is used to host Chinese investments that meets China's	● Strengths ● Financially independent of government, project is commercially driven ● Development of all infrastructure needs around park by the investor, such as roads, electricity, telecommunications, ports and airports ● Nickel mining to be used as inputs ● Park is used to host Chinese investments that meets China's

efficiency for lower labor costs, cost efficiency of localization and technology transfer, and export platforms ● Entry into domestic market ● Development spillovers (for rebalancing development as in spatial inequalities)	goals in exporting excess production capacity in manufacturing, Chinese technology and production systems and inflows of FDI for Malaysia and local employment ● Park activities focus on exports ● Park provides learning through training and exports and potential for technology transfer ● Rebalancing spatial development in less developed part of Malaysia ● Potential cluster development when all the investments are realized ● Weaknesses ● Use of local labor is less than imported labor ● Technology transfer to local SMEs is uncertain ● Impact on local steel producers a concern	goals in exporting excess production capacity in manufacturing, Chinese technology and production systems and inflows of FDI for Indonesia and local employment ● Park focuses on exports ● Park provides learning through training. polytechnics and exports and potential for technology transfer ● Rebalancing spatial development: Park facilities development in less developed part of Indonesia ● Park uses natural resource (nickel) of Indonesia for downstream development ● Establishment of polytechnic for training and stage 1 of mineral innovation centre ● Weaknesses ● Use of local labour is less than imported labour
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Governance

● Transparency ● Stakeholder engagement ● Legal Compliance ● Labor/Human Rights issues ● Re-settlement issues	● Transparency issues, plans for development are only privy to equity owners and shareholders, public not well informed ● No reported stakeholder engagement with the public and hence the “great wall’ comment when the steel factory was constructed ● Compliance with domestic regulations need to be improved ● Poor communication with the public and the community ● Concerns over the influx of	● Transparency issues as it is a private sector initiative. Public and local community are not privy to the development plans ● No reported stakeholder engagement with the public ● No reported non-compliance with domestic regulations ● Poor communication with the public and the community ● Concerns over the influx of Chinese workers. Labour issues manifested in anti-Chinese workers sentiments; alleged abuse of
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	Chinese workers	workers in mining activities
	No resettlement issues	No resettlement issues here
Environmental		
- Low carbon/greenhouse gases footprint - Bio-diversity/forest protection and restoration - Water and waste management	- Compliance with EIA, but monitoring and compliance is deemed to be weak in Malaysia - No deforestation reported - Waste water management in Alliance steel – private sector endeavors	- Compliance with EIA, but monitoring and compliance is deemed to be weak in Indonesia - Several serious environmental concerns, including deforestation, but there are no substantive studies or investigations on its links with Chinese investments - Concerns about disposal of nickel waste, still an ongoing issue for EV battery production

Source: Authors

Final Conclusions

There are several important lessons that can be gleaned from the four case studies. For large long-term infrastructure projects, host economies do have agency in shaping the progress and outcomes of the BRI ventures, either by active initiation, passive delay, and/or proactive renegotiation. Likewise, host economies can leverage on their strengths, especially in natural resources, when negotiating with Chinese companies for equity based investments.

Outcomes of negotiations will depend on whether there is a clear mandate on immediate economic outcomes such as FDI, employment and export as well as the more long-term sustainable development goals of a country. A myopic focus on short-term immediate goals only may lead to detrimental long-term sustainable development, especially in projects involving natural resources. It can also imply missed opportunities for using FDI for improving domestic capabilities in human and technology development in addition to meeting the sustainable development goals of a country, including especially environmental preservation.

The presence of democratic institutions and open voices provide extra leverages for the host government to bargain with China. This is evidenced by the renegotiated ECRL deal in Malaysia. With the mandate from the 2018 general election, Mahathir's PH government renegotiated with China to reduce costs and bargain for more favourable terms, including a more sustainable risk-sharing operational arrangement and transit oriented development plan. In addition, projects are implemented and governed within host economies, implying the need to have strong domestic institutions to ensure that project outcomes meet the aspired goals of a country. This goes beyond having laws and regulations alone as enforcement is equally important. Without strong enforcement mechanisms and capabilities, projects may merely adhere to the letter of the law rather than the intent of the law. Independent reviews provide a means for assessing whether outcomes comply with the desired goals, including the case of corporate governance.

Lastly, corruption can derail the viability of a project from negotiations to implementation. This can occur in host economies with established institutions as corruption can circumvent even the established institutions of a country. Open voices and public engagement can provide a form of checks and balances.

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