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POLICY PAPER

China's Belt And Road Initiative In Indonesia

How to Avoid Low Investment Quality and Debt Traps?

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Executive Summary

Against the backdrop of an analysis of the various polemics that have arisen in the implementation of China's Belt and Road Initiative (BRI) in Indonesia, the study in this policy brief focuses on outlining five crucial points. First, it describes the development of the Belt and Road Initiative in Indonesia and other developing countries. Second, it identifies the potential losses if Indonesia is too dependent on China. Third, the paper explains the poor governance of the Belt and Road Initiative in Indonesia. Fourth, it describes the lessons and criticisms of the Belt and Road Initiative in various countries, specifically developing countries whose conditions are relatively similar to Indonesia. Fifth, it examines the problems faced by the battery/EV production ecosystem in Indonesia in relation to investment from China. Sixth, formulate recommendation for government to create safeguard on the implementation of Chinese investment.

1. The Belt and Road Initiative (BRI) in Indonesia and other developing countries

A decade ago, in 2013, Xi Jinping launched the Belt and Road Initiative which was aimed to be the New Silk Road of the 21st century. The project comprises at least three principal objectives, including creating the Economic Silk Road, Land Silk Road and Maritime Silk Road Initiative. Concerning its development, this programme covers various parts of the world, including Latin America, Africa, the Middle East, the Pacific Islands, South Asia and Southeast Asia.

Table 1.
Top ten countries with the Belt and Road Initiative projects in terms of value

Country	In million USD
Pakistan	27.3
Indonesia	20.3
Kazakhstan	12.3
Malaysia	8.4
Cambodia	6.8
Kenya	6.3
Belarusi	6.1
Sri Lanka	5.5
Bangladesh	5.0
Ethiopia	4.1

Source: AidData (2021)

Table 2.
Top ten countries with the Belt and Road Initiative projects currently operating calculated based on the number of projects

Country	In million USD
Cambodia	82
Pakistan	71
Indonesia	71
Mongolia	43
Belarus	35
Myanmar	33
Cameroon	30
Sri Lanka	25
Angola	25
Kazakhstan	21

Source: AidData (2021)

In 2022, 147 countries have signed a Memorandum of Understanding (MoU) for various cooperation projects with China under the umbrella of the Belt and Road Initiative. This number represents two-thirds of the world's population and involves approximately 40% of global GDP. This is also the driving factor in relation to the strengthening of China's economy in recent years. However, in reality, the Belt and Road Initiative has encountered various problems and challenges in several countries for various reasons, including environmental damage and labour issues.

Notwithstanding that it exhibits several polemics, the implementation of the Belt and Road Initiative remains massive in numerous countries, principally developing countries. The strength of implementing this project was driven by Xi Jinping's vision to build an extensive network of railways, energy pipelines and highways crossing state borders by land and sea in each direction, including westward through the mountains of the former Soviet Republics and to the South, spanning India, Pakistan, as well as the entire Southeast Asian region.

The Belt and Road Initiative is also a tool for the success of attempts to expand the use of Chinese currency internationally. Under the umbrella of the Belt and Road Initiative, funding for mega projects in various countries has abandoned the US dollar and turned to local currency to expand the use of the Yuan. Not only funding physical infrastructure, but China also claims that it has funded the construction of hundreds of special economic zones and industrial zones that are designed to integrate the use of Chinese technology to accommodate maritime trade traffic lanes. Chinese communications technology giants such as Huawei has been given a mandate to develop a 5G network in this venture. In addition, China has also invested in port developments that can connect the Indian Ocean, Southeast Asia, East Africa and parts of Europe more effectively.

In the context of Southeast Asia, where the majority of its countries are classified as developing countries, massive investment from China has received considerable attention. In line with that, China is also of the opinion that the ASEAN region is exceedingly promising as regards becoming a potential target to realize the Belt and Road Initiative. Inevitably, Chinese investment in 2019 succeeded in breaking the phenomenal figure of USD 1 trillion aimed at four ASEAN countries, namely Indonesia, Vietnam, Cambodia and Singapore. These investments included the development sector, transportation development, mining, together with steam and water power plants. It should be mentioned that particularly in Indonesia, Chinese investment continues to experience increasingly rapid development.

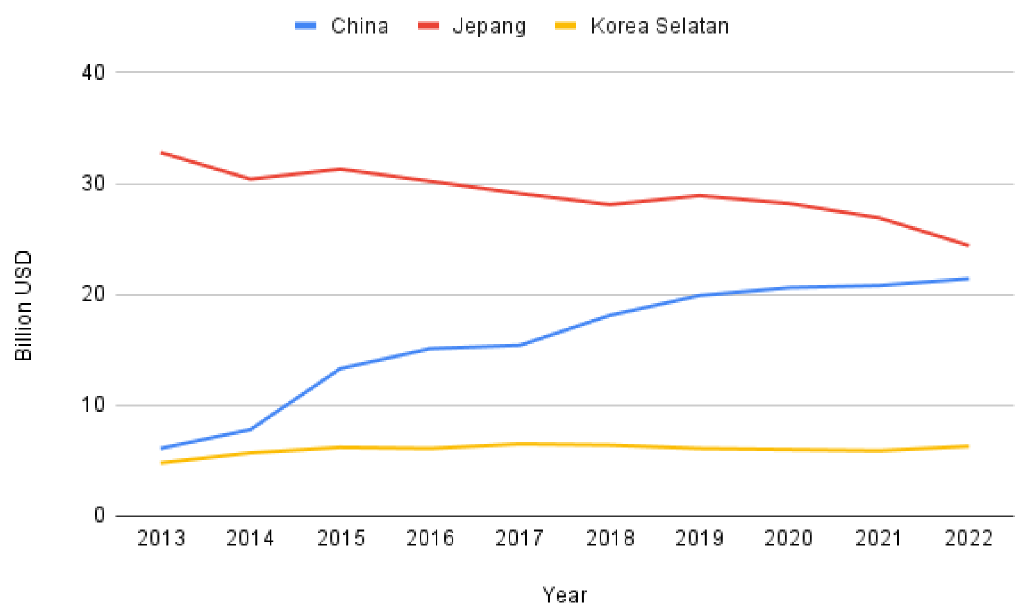
2 Indonesia's dependence and risk regarding debt and funding from China

In recent years, with the massive implementation of the Belt and Road Initiative, Indonesia's dependence on China has become increasingly evident creating a negative domestic economic climate. This rapid increase in collaboration has taken place during the Jokowi administration. As the partnership with China increases, there is concern from the public because Indonesia's economic cooperation is considered to be too dependent on China.

The fact China is now Indonesia's largest trading partner and investor is undeniable. In 2021, the value of Indonesia's exports to China reached USD 63.63 billion , dominated by mineral fuels and nickel. The import value from China was USD 60.71 billion, dominated by the raw or auxiliary materials needed to boost productivity of domestic industry.

In the first half of 2022, Indonesia's imports from China reached USD 34.3 billion, mostly mechanical and electrical devices. Chinese smartphone brands such as OPPO, Vivo, Xiaomi and Realme took more than 60% of Indonesia's smartphone market. China is currently leading many major infrastructure projects in Indonesia. One such landmark is the USD 8 billion Jakarta-Bandung High-Speed Railway (KCJB) megaproject. Once complete, it will be the first high-speed rail link in Southeast Asia. In addition, it has begun to increase the use of the Chinese yuan in its foreign transactions. During the pandemic, China became Indonesia's largest supplier of vaccines. The close economic relationship that is being established between both countries has the potential to create deeper dependence. Of course this will present various risks, one of which is that Indonesia must prepare a mitigation strategy to avoid unwanted situations, such as debt traps. It should be noted that the value of Indonesia's debt to China has reached an incredible amount, specifically USD 20.22 billion or the equivalent of IDR 315.1 trillion in 2022. This may increase given that China has already committed to an number of future projects that have been signed between the two countries. In addition, there is concern as regards the risk of default which will result in greater losses in the future.

Figure 1.
Indonesia's external debt to China, Japan and South Korea (2013-2022)



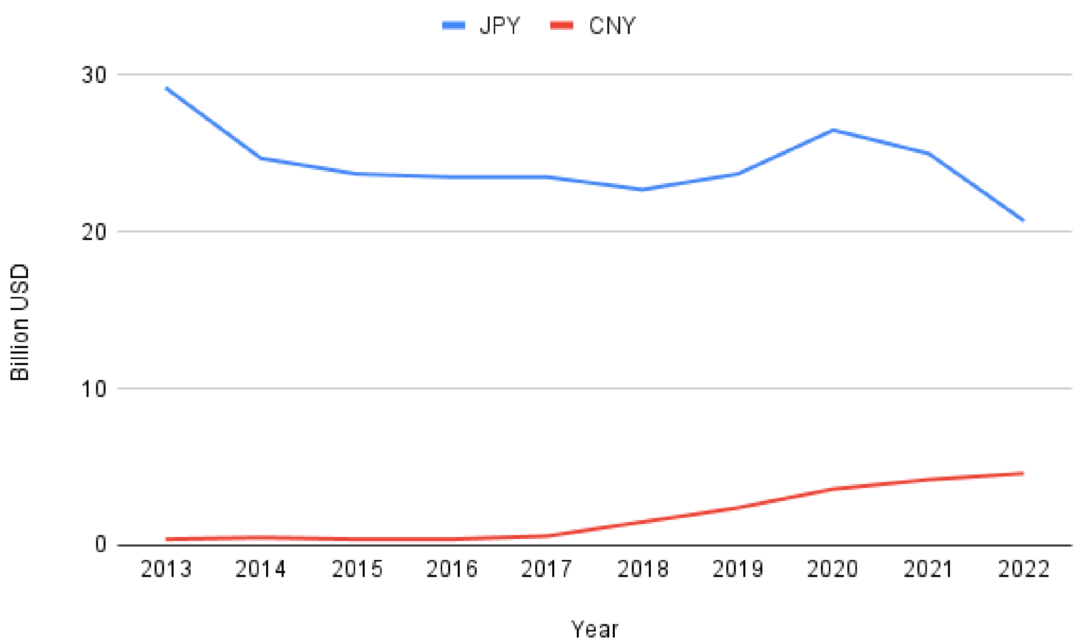
Source: Bank Indonesia processed

This concern is not without basis for the reason that a number of the countries involved in the Belt and Road Initiative have defaulted, including Sri Lanka regarding the Hambantota International Port development project. There are several factors that can lead to the risk of being in debt, especially as China provides a high burden of credit schemes. Equally, the loan requirements for the Belt and Road Initiative also created a separate polemic because the payment of the loan required partner countries to buy 70% of their raw materials from China and to employ a large number of Chinese workers. This condition is of course not a balanced collaboration but tends to benefit Chinese investors and the impact will be burdensome for local industry players.

In the Indonesian context, agreements to encourage the use of the Yuan and Rupiah in foreign transactions also raise other concerns. Indonesia needs to take into account the considerable risks in implementing this agreement because it will be related to domestic economic stability. This is because China frequently devalues its currency.

China has undertaken devaluation in recent years with the aim of securing its economy. For example, China devalued the Yuan in 2019 to make its products cheaper due to the negative impact of the trade war with the United States. When the Yuan is devalued, Chinese products are much more affordable and competitively priced in international markets. Therefore, when Indonesia begins to intensively use the Yuan, it is feared that the circulation of imported goods from China will flood the local market because the prices are much cheaper. As a result, this will threaten the existence of the domestic market, principally the Indonesian MSME sector and industries related to construction-infrastructure raw materials.

Figure 2.
Indonesia's external debt in JPY and CNY (2013-2022)



Source: Bank Indonesia processed

Apart from the economic implications above, Indonesia's dependence on China will also have political implications. One is regarding the issue of the South China Sea which threatens Indonesia's sovereignty, chiefly in the Natuna Waters. Dependence on China in the economic field has limited Indonesia's ability to offer resistance and a firm stance against China's increasingly aggressive approach in the region.

Therefore, the government needs to ensure that Indonesia's involvement in the Belt and Road Initiative does not only benefit one party. The government also needs to realise that essentially, in the process of implementing the Belt and Road Initiative, China needs Indonesia more than the other way round. This is because Indonesia holds an important and strategic position in regard to the realization of the Belt and Road Initiative in Southeast Asia. It is clearly illustrated in the map pertaining to the Belt and Road Initiative, that China's ambitious project must traverse Indonesia's maritime territory and China will not be able to complete the project without Indonesia's involvement.

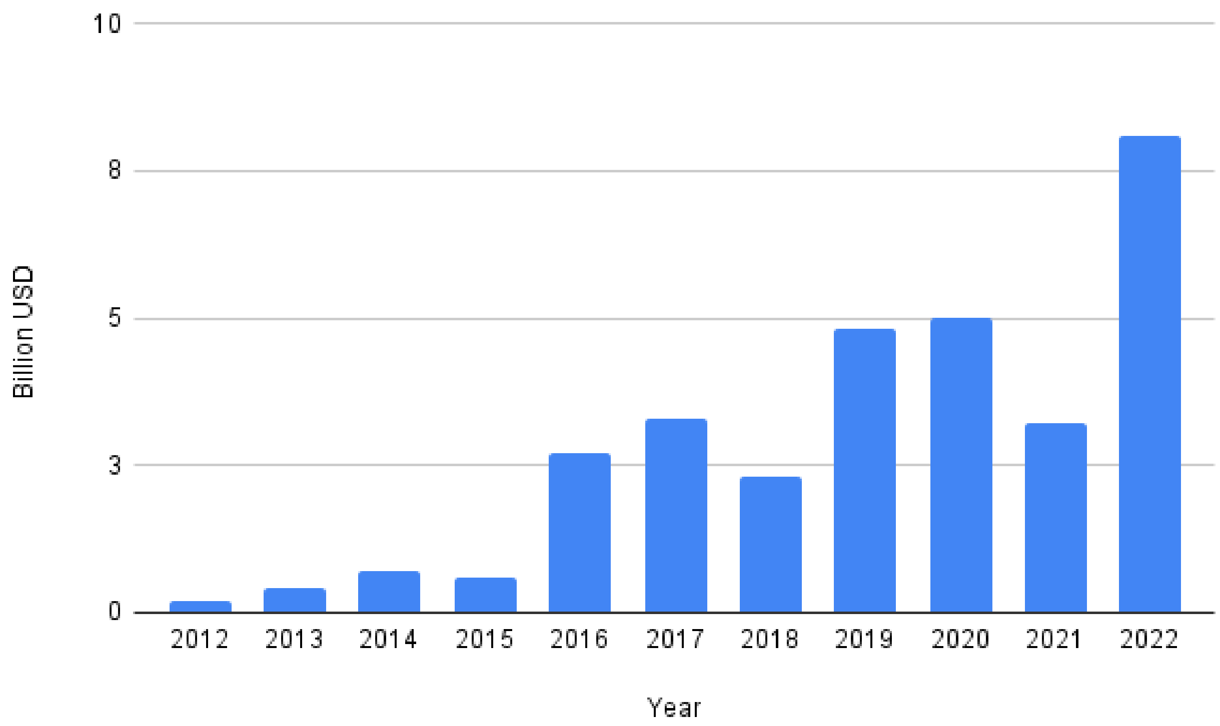
Table 3.
The Belt and Road Initiative projects in Indonesia

Project Type	Project name
Roads and railways	Jakarta Bandung High Speed Railway
	Balikpapan-Samarinda Road
Development of Coal Fired Steam Power Plants	Mulut Tambang Sumsel- 8 Coal Fired Steam Power Plant
	Paiton Unit 9 Coal Fired Steam Power Plant
	Celukan Bawang Coal Fired Steam Power Plant
Construction of Hydroelectric Power Plants	Nusa Tenggara Timur Hydropower Project
	Batang Toru Hydropower Project
	Kayan River Hydroelectric for Plant

Industrial developments	Tanah Kuning Industrial Park (KIHI)
	Ketapang Industrial Park
	Likupang Economic Zones
	Morowali Industrial Park
	Obi Industrial Estate
	SDIC Cement Project

Source: Compiled by CELIOS from various sources

Figure 2.
Value of Chinese investments in Indonesia (2012-2022)



Source: Indonesia's Ministry of Investment (2023)

3. Poor governance of the Belt and Road Initiative in Indonesia

In implementing major projects such as the Belt and Road Initiative, it is important to perform sustainability analysis as a form of responsibility and transparency to stakeholders, such as partner countries and society in general. The assessment of sustainability can be seen from the annual social responsibility report as well as the analysis of environmental, social and governance aspects. This is necessary because it can help measure and improve performance, as well as manage the environmental and social impacts associated with the introduction of the Belt and Road Initiative, which are also the two sectors most affected by the investment of Chinese companies in Indonesia. Not dissimilar to countries in South Asia and Africa, criticism of the Belt and Road Initiative in Indonesia also revolves around inept corporate governance.

Box Trivia: Various issues in the Jakarta-Bandung High Speed Railway project
• **2019** A fuel pipe owned by Pertamina exploded during the operation of the Jakarta-Bandung fast train project and claimed the life of an individual from China. • **2020** A flood on the Jakarta-Cikampek Toll Road due to the work on bored piles and pile caps, disrupted the flow of traffic. • **2020** The use of explosives during a construction project to create a tunnel caused cracks in the houses of residents living at the foot of Mount Bohong, West Bandung. • **2021** The collapse of the supporting pole for the fast train line that hit an excavator. This was due to the contractor violating the SOP. Although there were no casualties, it took time to repair. • **2021** In 2015, the Chinese government targeted the KCJB development fund to only reach USD 5.13 billion, equivalent to IDR 76.95 trillion, assuming an exchange rate of IDR 15,000. However, over time, costs continued to increase to USD 6.07 billion, which is equal to IDR 91.5 trillion. Finally, in 2021, the KAI's Director of Finance and Risk Management estimated that the increase in costs will increase significantly from USD 6.07 billion to USD 8 billion which is equivalent to IDR 120 trillion

- **2022**

The derailment of technical trains. This incident resulted in a total of six victims, including two fatalities. All of the victims were workers from China.

At the end of 2022, Commission IV of the DPR agreed to approve IDR 3.2 trillion of State Capital Investment (PMN) for the KCJB project. This decision gave rise to strong opposition from a number of parties because from the outset, the project had been agreed with a B to B scheme without involving funds from the state budget. However, in practice, the government still had to distribute funds to cover project cost overruns.

- **2023**

In early April 2023, the government finally agreed to increase the cost of the project by USD 1.2 billion, the equivalent of IDR 17.89 trillion. The total cost has reached USD 7.27 billion, which is equivalent to IDR 110.5 trillion. It is acknowledged that PT KCIC will add USD 560 million in debt to the China Development Bank to cover cost overruns. On the other hand, the government is increasingly worried because China is also urging Indonesia to make the state budget a guarantee as regards these cost overruns.

Nevertheless, the KCJB project is not the only project that has poor governance. China also has a number of nickel processing investments in the country and several Chinese companies involved have not prioritised governance as essential for corporate sustainability. For example, in terms of environmental management, on April 25 2023, a flood occurred in the PT Indonesia Morowali Industrial Park (IMIP) project area. According to Walhi Southeast Sulawesi, this flood was triggered by deforestation owing to the expansion of the project. This has not only generated economic losses, but it has also had serious ecological and social impacts that must be borne by the local people living in the vicinity of the mines and the workers living in the industrial sites.

The threat to the sustainability of biodiversity on account of projects funded by China has also occurred from the construction of the Batang Toru Dam, Tapanuli, North Sumatra. This dam was built for a hydropower plant in collaboration with PT North Sumatra Hydro Energy (NSHE), the State Electricity Company (PLN) and Sinohydro, which is an engineering and construction company supported by SDIC Power Holdings from China. According to research conducted by Divya Narain and her colleagues from The University of Queensland in 2022, the orangutan habitat in the area is threatened with extinction and only 800 orangutans remain owing to the construction of dams that are not environmentally friendly. The hydroelectric dam operation is also troubling residents because the flow of the river is decreasing. As a result, there is a reduction in the supply of water to meet the daily needs of the local community.

The table below shows a list of several countries that have loans and investments from China, particularly via the Belt and Road Initiative programme. The loans that China provides tend to generate the most environmental issues.

Table 4.
The most problematic Belt and Road Initiative projects from an environmental standpoint

Country	Number of projects	Value (million USD) 2017
Indonesia	6	4,651
Papua New Guinea	2	176
Belarus	2	727
Kamboja	1	759
Zambia	1	164
Pakistan	1	93
Myanmar	1	-

Source: AidData (2021)

In addition, various problems have also materialised on Obi Island as a result of the investment by Chinese companies GEM and CATL in collaboration with the Harita Group. This company, engaged in the nickel industry, has been reported to be damaging the environment, as well as causing harm and misery to residents surrounding the mine. Mining activities also have a social impact which is causing a reduction in the welfare of the residents of Kawasi village, the majority of whom work as fishermen. A similar phenomenon has also occurred in Morowali, where PT IMIP operates, which is placing the welfare of residents living around the mine at risk due to the company's continued growth.

Aspects of governance in Chinese projects in Indonesia also still need to be seriously addressed. This is for the reason that many companies are failing to adhere to Occupational Safety and Health (K3). Numerous incidents and accidents have taken place, along with conflicts between workers. One example occurred at PT Gunbuster Nickel Industry (GNI) in Morowali. In December 2022, two PT GNI workers died due to a smelter furnace explosion which caused a fire. According to Muhammad Safri, deputy chairman of the North Morowali Regional People's Representative Council (DPRD), the company pays little attention to the safety and security of workers. In fact, it is accepted that workers have to buy K3 Personal Protective Equipment (PPE) independently because the company does not provide it.

Just a few months ago, between January 11 to 14, the workers put forward at least twelve demands that were communicated during a demonstration at the industrial site. The essence of the workers' demands related to PT GNI's violation of labour regulations in the absence of company regulations regarding the application of contractual status for permanent workers, ambiguous wage deduction policies, failure to provide and consider Occupational Safety and Health or K3 issues, as well as unilateral layoff policies. Furthermore, it is stated that Chinese workers are treated differently and better in contrast to local workers. This demonstration led to clashes between Chinese workers and local workers which resulted in two fatalities. This situation has had a negative impact on PT GNI's track record of dealing with its workers, which in less than one month has resulted in four fatalities. The problems faced by PT GNI are an indication of poor corporate governance, which, in turn, has created problems in the environmental and social sectors.

The description above is only a small overview of several Chinese companies that have governance issues that still need to be addressed. There are still many problems associated with Chinese investment projects taking place in Indonesia. Therefore, improving governance is imperative if Chinese investment is to be sustainable in this country. Social responsibility must continue to be encouraged to enhance the lack of project transparency in relation to the public.

Negotiations conducted between China and the Indonesian government are frequently undertaken without any consultations with the public. This needs to be revised so that people's trust and acceptance of the Belt and Road Initiative in Indonesia can be increased.

4. Lessons from the failure and criticism of the Belt and Road Initiative in various countries

The Belt and Road Initiative is a significant tool for furthering the agenda and interests of the Chinese Communist Party (CCP). This ambitious mega-project continues to be intensively carried out in various countries, the majority of which are developing countries. In its implementation, criticism and scepticism of the Belt and Road Initiative have become a major challenge for China, notably since the iInitiative are frequently associated with the widespread issue of debt traps. The debt trap itself is not an unfounded allegation. When viewed historically, in recent years, several countries have been convicted of default and trapped in considerable debt with China under the Belt and Road Initiative.

The loan scheme offered by China has a policy model where, if the borrowing country is unable to pay its debts, China will limit the government's ability to make important decisions and its control. As a consequence, China can take ownership of the projects. Several of the countries that are at high risk of being trapped in a debt trap due to the Belt and Road Initiative projects include Kazakhstan, Mongolia, Malaysia, Vietnam, Cambodia, Laos and Indonesia.

Table 5.
Countries receiving the Belt and Road Initiative infrastructure projects which experienced scandal and controversy

Country	Number of Projects	Value (million USD) 2017
Pakistan	10	5,675
Indonesia	9	5,224
Malaysia	5	18,863
Vietnam	5	2,747
Kenya	4	5,047
Kyrgyzstan	4	1,055
Papua New Guinea	4	436
Cambodia	2	860
Mozambique	2	768
Belarus	2	727

Source: AidData (2021)

The table above reveals that quite a number of partner countries that receive investments from the Belt and Road Initiative are experiencing problems. There are several factors that underlie the emergence of various polemics, among which are that many destination countries for the Belt and Road Initiative do not have the technical expertise to fully assess the terms of the project contract or the sustainability of the debt mechanism produced by China and the challenges connected with navigating the dispute resolution or the arbitration process. The arbitration process in the Belt and Road Initiative is extremely complex. This is because the Belt and Road Initiative loans operate outside of the international standard monetary system so that they offer limited protection for the recipient countries. As a consequence, countries that are later entrapped in these projects have fewer options as regards seeking help when in debt. This situation puts China at an advantage due to concessions and self-imposed lending rules. China is considered to have deliberately used countries with low and developing economic capabilities to strengthen its position by means of Belt and Road Initiative.

One example of a country that is entangled in China's debt is Zimbabwe. The country received large loans to battle rebels. Unable to pay debts when they are due and in return for debt relief, Zimbabwe was finally forced to sign an agreement to employ the Yuan as one of the country's legal currencies starting in 2016. This is evidently one of the strategies that China employs to further expand the use of the Yuan globally.

Nigeria which received a Belt and Road Initiative loan for infrastructure development also had a similar experience. Even though Nigeria is actually the largest oil producing country in Africa, due to debt bondage, the country was forced to approve an agreement to accept the arrival of a substantial number of Chinese workers and to agree that the majority of raw materials were taken from China for the construction of the infrastructure. Examining the context of China, which has domestic problems with excess raw materials and high unemployment, the agreement is extremely profitable and enables it to resolve domestic polemics. Meanwhile, another African country that is trapped in debt is Uganda. Failing to pay debts after receiving a loan used for the construction of Entebbe International Airport, currently, the ownership and authority of the national airport is in the grip of China.

It is not only countries in Africa that have suffered substantial losses due to the debt trap, countries in Asia have also suffered too, for instance Sri Lanka. Sri Lanka received a loan from China under the Belt and Road Initiative umbrella of USD 1.3 billion to modernise Hambantota International Port on condition of allowing the Chinese Communications Construction Company to complete the construction of the project. With various internal problems such as corruption, Sri Lanka was forced to give up 99 years of port management concessions and a dominant share ownership of 70% fell into the hands of China as a result of a default on debt payments.

Reflecting on the various cases above, the Indonesian government must carry out comprehensive monitoring of the Belt and Road Initiative projects which have the potential to experience debt trap problems and environmental damage issues, which will be exceedingly detrimental in the long run, for example the projects that are currently ongoing, namely KCJB and PT IMIP.

Table 6.
Countries affected by China's debt trap

Country	China's debt trap
Zimbabwe	Dependence on China for loans to buy weapons to contain rebels on the borders of Rwanda and Uganda. Ultimately causing Zimbabwe to experience a debt crisis and forcing it to use the Yuan as an alternative legal currency in transactions since 2016.
Sri Lanka	In 2010, Sri Lanka was granted a USD 1.5 billion loan by China for the construction of the Hambantota Port. However, in 2017, title to the port fell to China as Sri Lanka was unable to pay its growing debt.
Uganda	In 2015, Uganda also received a USD 207 million loan from China for the construction of the Entebbe International Airport. Uganda was trapped in debt with China and gave up the ownership of the airport to creditors.

Source: Compiled by CELIOS from various sources

5. Raw goods export policy under the guise of downstreaming

In recent years, the initiation of a downstream mining policy by President Jokowi has been followed by the rampant construction of smelters across Indonesia, particularly nickel smelters established by companies from China. According to Adam Afian Richwanudin, a legal researcher from the Auriga Nusantara Foundation, there are nickel reserves of 2.8 billion metric tons spread across the islands of Sulawesi, Maluku and Papua, and other parts of Indonesia.

This makes Indonesia a very attractive and strategic target for China to invest in. Notwithstanding that the downstream policy has a magnanimous aim, namely, to increase the export value of nickel because it is processed and not sold raw, its implementation still leaves various challenges. A study conducted by the Corruption Eradication Commission (KPK) together with the Auriga Nusantara Foundation identified several problems that deserve attention.

First, there are still individuals who commit fraud and there is a potential for corruption to grow. This will actually generate substantial losses for the country. Second, the evaluation of nickel smelters, which has many problems, resulted in the failure of investment in state equity participation (PMN). Third, state income by way of royalties and export duties is reduced on account of illegal export practices. Fourth, losses arise from acts of misappropriation of tax facilities and incentives.

After the downstream policy was implemented, attempts to accelerate the development and refining of nickel industry resulted in regulatory changes that were repeated many times and were inconsistent with previous laws. The revised regulations subsequently transformed the domestic market as a consequence of changing industrial business regulations. One of the revised rules is the tightening of nickel export permits which require a collaboration between mining IUPs and smelters. In fact, many mining IUPs have no partnerships. This creates loopholes for irresponsible individuals to illegally export nickel ore.

For example, the KPK's DNA Directorate found a difference in excess exports during the relaxation period between 2017 and 2019 worth 358 thousand WMT. Findings from 400 sampling vessels at ports on Chinese shiploads identified that 62% of 248 vessels had nickel content >1.7%, whilst 25% of 100 vessels contained nickel content <1.8%. There were also 18 vessels from Indonesia transporting approximately 31 million tonnes of nickel with grades above 1.7%. This denotes that illegal nickel exports do not only occur for low grade nickel, but also for high grade nickel. Further violations of regulations can also be noted in the HS Code 2604 data which does not match the import reports released by Indonesia and China. Granting that the downstream policy has been implemented, the fact is that until 2020 violations of illegal nickel ore exports were still being uncovered. The HS Code 2604 data also details that Chinese Customs and Excise received nickel ore in the form of ore, which had actually been banned, worth USD 229.8 million or around IDR 3.2 trillion.

Essentially, based on the report, Indonesia suffered a loss of IDR 996 billion in 2019. This practice is a double edged sword for Indonesia. First, it loses potential revenue in terms of royalties and export duties owing to illegal exports. Second, the export of illegal nickel ore in the form of ore without prior refining has resulted in a failure to maximise state revenue due to its low price. Violations by business actors are also encouraged because of regulatory changes. Initially, the ban on low grade nickel exports was set to begin in January 2022. This was undertaken to familiarise business actors with the new standards and criteria. However, by means of Permen ESDM No. 11/2019, the government made changes to regulations by accelerating the ban on low-grade nickel exports to December 31, 2019.

This rapid regulatory transformation meant that the market was unprepared and had the potential to cause regulatory abuse, such as illegal export practices. Polemics also occur to the roots. This is because the supervision and evaluation system with respect to smelter construction has not been closely monitored. As a consequence, the monitoring system has not been able to ensure that the smelter construction is completed according to the target and generates added value. The investigation ascertained that an evaluation of inefficient refining technology caused eight smelters scheduled to operate in 2021 to encounter delays. The Ministry of Energy and Mineral Resources reports in smelter audit data that inappropriate technology will reduce production capacity, refine processes that are not up to standard and inflate operational costs. In fact, the government has invested significantly in this smelter project so the delay in project work will be exceptionally detrimental to the nation.

The inappropriate use of technology means that this is also not the first time this has transpired. Another example relates to PT Aneka Tambang (Antam) which was unable to achieve the targets set in 2019 due to problems with the construction of the power plant. Consequently, Indonesia not only suffered a loss of IDR 3.5 trillion from investment failures, but also a tax incentive loss of IDR 350 billion, as well as a tax holiday facility of IDR 350 billion as the factory was not operational by the September 2022 deadline. Unfortunately, the negative impact does not stop there. The outflow of funds also occurred in regard to other costs, including preservation costs of IDR 14 billion per year, fuel costs of IDR 12 billion per year, besides the cost of relocating generator supply machines of IDR 1.6 billion.

Therefore, the supervision and evaluation systems for the construction of smelters as well as the tightening of export relaxation policies and tax incentives need to be realised immediately. It does not stop there, monitoring the implementation of ESDM Ministerial Regulation (Permen) Number 11 of 2020 concerning Procedures for Setting Benchmark Prices for Metal Mineral Sales must be a priority. All business actors must adjust the price in nickel buying and selling transactions according to the metal HPM that has been set by the government. The price policy for nickel ore in the domestic market, which is regulated lower than overseas, if not accompanied by strict monitoring, suggests that certain individuals will have the potential to carry out illegal exports in order to make personal gains.

6 Problems with the EV battery industry ecosystem in Indonesia

a. The massive opening of mines

After the downstream policy was set by Jokowi to satisfy the battery/EV supply chain, the opening of mines and smelters for nickel processing has boomed. However, the problem is that these particular smelters process nickel using Rotary Kiln-Electric Furnace (RKEF) technology for Nickel Pig Iron (NPI) production, and not High Pressure Acid Leach (HPAL) technology which produces the raw materials for the batteries. This is because RKEF is relatively cheaper than HPAL technology. The production of NPI has experienced over supply because it is in high demand among business actors. This has created a domino effect which has further depressed the NPI price.

To respond to this, the government aims to control the production of NPI in the country. It is estimated that there are a total of 33 smelters with pyrometallurgical technology already in operation and currently producing 115.45 million metric tons of NPI. In addition, as many as 37 smelters are under construction which will produce 90.88 million metric tons. Plus, there are plans to construct further 27 smelters.

The opening of the massive mine also raises other problems, for instance the issue of deforestation, social problems for the community regarding land acquisition and permits, and a limited supply of clean energy to support company operations which has resulted in many nickel processing companies using coal-fired power plants.

b. Environmental impact of power plants and smelters

The environmental impact of Chinese-funded nickel mining in Indonesia has created serious problems that cannot be disregarded. This is because the company still uses coal to support the company's operations by establishing Coal Fired Steam Power Plants. China itself has promised to reduce the construction of power plants in line with its commitment to the Paris Agreement. This was also conveyed by Xi Jinping at the United Nations (UN) General Assembly meeting in 2021, who asserted that his country would stop financing the constructions of Coal Fired Steam Power Plants overseas. Nevertheless, in reality, the construction of Coal Fired Steam Power Plants in Indonesia has not been halted. Currently, there are as many as three major power plant projects that are under construction with funding from Chinese companies.

First, the construction of a coal-fired power plant with a capacity of 3x380 MW at the Morowali Industrial Park, began in December 2021. This is a collaboration between PT Bintang Delapan Indonesia, which is also the founder of PT IMIP, and Tsingshan Holding Group of China. Second, the construction of a coal-fired power plant with a capacity of 4x380 MW which began in February 2022 on Obi Island, North Maluku. This project is a collaboration between Harita Group Indonesia and Ningbo Lygend China. Third, the construction of a coal-fired power plant with a capacity of 380 MW in North Maluku which has been under construction since July 2022. This project is a collaboration between Weda Bay Industrial Park Indonesia (WBIPI) and three companies from China, specifically China Tsingshan Group, Huayou Group and Zhenshi Group.

Equally, other massive projects have also been built at several industrial points, such as in Morowali, Southeast Sulawesi, Konawe and Weda Bay. The project includes the construction of 530 MW Delong Nickel Phase I and 135 MW Delong Nickel Phase II at the Virtue Dragon Nickel Industrial Park, the construction of the Weda Bay Power Plant with a capacity of 750 MW and the Youshan Nickel Power Plant with a capacity of 250 MW. The construction of these various Coal Fired Steam Power Plants poses serious problems for the sustainability of the environment and ecosystems in the oceans. The results of an investigation by the Mining Advocacy Network (JATAM) reported that PT IMIP's activities in Morowali had caused seawater pollution to the point where it turned black due to large amounts of coal deposits being dragged into hot water discharges. It is feared that if there is heavy rain then the andgerous contaminants will flow directly into the sea. A similar incident occurred in Kurisa Village, Bahodopi. This worrying situation means that residents who work as fishermen have to bear the consequences. Sea water contamination disrupts the fish ecosystem in the area, causing a further decline in fish catches, especially after PT IMIP started constructing the Coal Fired Steam Power Plants project. What is more, the fish which they nurture in the ponds repeatedly die because the temperature of the sea water turns hot owing to the discharge from the Coal Fired Steam Power Plants' turbine cooling system. PT IMIP itself has been dependent on coal power to support the company's operations related to meeting its electricity needs. Meanwhile, the construction of three Coal Fired Steam Power Plantswith exceptionally large capacities, roughly 1,180 MW, has exposed residents in Fatufia Village to coal dust which has spread to residents' homes. The village is located near the Coal Fired Steam Power Plant built by PT IMIP. Albeit that it has caused substantial environmental damage and suffering for the local residents, the government has still granted PT IMIP permission to build ten additional coal-fired power plants. The negative impact is expected to exacerbate following the government's plan to permit the disposal of tailings into the sea through the Deep Sea Tailings Placement project. Hence, more than 7,000 fishermen and 3,000 ha of coral reefs in Morowali could be seriously affected.

Further environmental impacts also occur on Obi Island, North Maluku, as a result of the activities and operations of Harita Group companies and their partners. This has caused fish catches to decline because the sea water has become reddish. The Harita Group has indirectly intimidated the small fishermen and as a consequence these fishermen have been forced to look for fish 20 miles farther from their usual places to fulfil their daily needs because the previous fishing area had been polluted by mining activities.

Regrettably, the contamination of the mining waste has tarnished the water springs that the local residents consume. Together with the environmental issues, this increasingly desperate situation has resulted in public health being at risk. According to speculation from The Guardian, one of the water sources near the nickel mine on Obi Island has been contaminated with high levels of hexavalent chromium (Cr6) which can cause liver damage, reproductive disorders and growth problems if ingested or inhaled. In the long term, this exposure can cause stomach cancer. The Guardian has also investigated a fountain located less than 200 metres from the mining site, which is also near the village of Kawasi. Based on laboratory tests, the high contamination level of carcinogenic Cr6 in the fountain is at 60 parts per billion (ppb). According to Indonesian law, the maximum contaminant level should be only 50 ppb. The appalling news is that for the residents of Kawasi village, the fountain is the only source of water to meet their daily needs. Cooking, drinking and washing activities depend heavily on the fountain.

In the context of health, based on further investigation, there is evidence to suggest an increase in the rate of lung infection in villagers living around the mine, many of whom have fallen ill since the mine opened. The Guardian also unearthed data from village clinic midwives that more than 900 cases of potentially deadly acuterespiratory infection (ARI) were recorded among the 4,000 residents of Kawasi Village in 2020.

c. Impact on workers

Apart from having a detrimental impact on the environment, the EV battery production ecosystem in Indonesia has problems in regard to the labour aspect, chiefly in relation to the Occupational Safety and Health (K3). Based on the results of a number of investigations conducted by the Free Land Foundation (YTM), the circumstances of the workers in the Morowali mining area is extremely concerning. The implementation of supervision over the protection, safety and health of workers remains very low.

For example, there are many cases of transport drivers who often experience accidents as a result of being overworked to meet production targets. Some of them are often struck by heavy equipment while working and suffer burns because they are not provided with appropriate non-flammable PPE when in the field. In addition, there is an alleged lack of concern from the company regarding workers' welfare and mental health. It was even recorded that the number of workers who committed suicide was quite high, although the company has not provided any official carification regarding the cause and motive. These issues must be treated with importance in evaluating the performance of companies and governments. When explored further, the roots of the above problems reveal flaws in the recruitment and training system for workers. Many of the workers recruited were not workers with the appropriate skills to work in this industry; some even had little or no skills. This lack of the required skills is then not followed by adequate training provision to perform high-risk mining work. Consequently, accidents at work are very common. Apart from accidents, there have been a number of incidents that should not have happened to women workers. In 2014, there were reports of sexual harassment that occurred in the mining area in Morowali. The company has once again failed to act appropriately in relation to this issue. Regrettably, the reported incident has not yet been assessed and investigated by government agencies that deal with the safety and welfare of workers around the Morowali industrial area. Data compiled by Trend Asia shows the number of victims and the year of the incident that occurred at Chinese-owned nickel processing smelters in Indonesia.

Table 7.
Incidents that have occurred at Chinese nickel smelters in Indonesia

Name of Smelter	Number of accidents	Died due to accident at work	Allegedly committed suicide	Wounded victims	Incident Year	Incident Location
PT Indonesia Morowali Industrial Park (IMIP)	18	15	3	41	2018, 2019, 2020, 2021, 2022.	Morowali Regency, Central Sulawesi Province
PT Weda Bay Industrial Park (IWIP)	9	4	3	18	2021 and 2022.	Central Halmahera Regency, North Maluku Province

PT Virtue Dragon Nickel Industry (VDNI)	9	7	2	-	2015, 2018, 2019, 2020, 2021 and 2022.	Konawe Regency, Southeast Sulawesi
PT Gunbuster Nickel Industry (GNI)	10	8	2	3	2020, 2022 and 2023.	North Morowali Regency, Central Sulawesi Province
PT Obsidian Stainless Steel (PT OSS)	3	2	-	5	2020, 2021, and 2022.	North Morowali Regency, Central Sulawesi Province
PT Huadi Nickel Alloy Indonesia (HDNI)	6	3	-	5	2020, 2021 and 2022.	Bantaeng Regency, South Sulawesi Province
PT Wanxiang Nickel Indonesia (WNI)	3	-	-	3	2022.	Bantaeng Regency, South Sulawesi Province
PT Huadi Wuzhou Nickel Industry (HWNI)	3	-	-	3	2022.	Kabupaten Bantaeng, Provinsi Sulawesi Selatan
PT Sulawesi Mining Investment (SMI)	2	2	-	-	2017 and 2018.	Morowali Regency, Central Sulawesi Province
PT Indonesia Tsingshan Stainless Steel (ITSS)	1	1	-	-	2020	North Morowali Regency, Central Sulawesi Province

Source: Trend Asia (2023)

7. Recommendations

a. Improvements in the Belt and Road Initiative standards

The standard implementation of projects under the umbrella of the Belt and Road Initiative has received no end of harsh criticism in several countries, particularly in developing countries. Indonesia is no exception. The polemics discussed included company operating standards that were less transparent, complex loan schemes that were burdensome to borrowing countries, besides unbalanced investment requirements because they were more inclined to benefit China.

In response to this, the Chinese government then took action by revising several points in the "Vision and Joint Action to Build the 21st Century Economic Silk Road Belt and Maritime Silk Road", with one of the main priorities being the environmental management of the Belt and Road Initiative. In addition, the Chinese government has also developed a methodology to design extensive rules and policies with a dialogue-based approach, such as inclusive and innovative collective discussions between China and the host country, as well as with other international stakeholders.

One implementation related to these endeavours is a dialogue conducted by the BRI International Green Development Coalition (BRIGC) with the Ministry of Ecology and Environment (MEE) and international partners from the Global South and Global North. The dialogue is intended not only to open up discussions on cooperation between developing countries, but also to provide an opportunity for host country governments to participate in decision-making processes and allow flexibility in adopting partnership arrangements with China. The dialogue that was agreed upon in the discussion also deliberated the importance of China in conducting stricter supervision at the operational level, addressing several environmental governance issues for the Belt and Road Initiative, follow up on potential new areas of cooperation, design project implementation standards and evaluate rules regarding schemes financing the construction of Belt and Road Initiative projects. Notwithstanding that the discussion space has begun to open up, the points for improving cooperation have not been sufficiently implemented in Indonesia. This can be seen from the many issues regarding the environmental, social and project governance of the Belt and Road Initiative that have not been addressed. Therefore, there is a need for encouragement from the government to be more active in negotiating with the Chinese regarding improving standards according to the latest Belt and Road Initiative criteria, so that the cooperation that is forged can benefit both parties.

b. Encouraging Chinese finance/enterprises to comply with ESG standards

After the 1998 monetary crisis, the Indonesian government carried out reforms to strengthen national economic resilience, regional cooperation and accelerate development. For this reason, since the early 1990s, compliance with Environmental, Social and Government (ESG) standards has become essential so that stakeholders can manage the environmental and social impacts and the risks of a project by way of good governance. If these risks are not handled correctly, the development will not achieve the goals expected by all parties. It is important to note that the ESG is an important aspect to encourage companies to have good and sustainable governance. The fulfilment of this ESG is very closely related to the increasingly intensive cooperation between Indonesia and China. The status of China, which is the second largest investor in Indonesia and has 15,906 projects in various sectors, including infrastructure, mining and transportation, plays a vital role. As an important actor, it is necessary to improve the implementation and strict supervision of Chinese companies involved in the various, increasingly massive Belt and Road Initiative projects throughout Indonesia.

These companies must be continuously monitored and encouraged to have ESG performance reports which are then audited to valid disclosure rating agencies, such as Refinitiv, S & P Global, and others. The transparency of compliance with the ESG that can be accessed at various accountable rating agencies is expected to make it easier for the government to assess whether Chinese companies investing in Indonesia are companies that have ESG performance standards that are good and sustainable.

c. Persuading the battery/EV supply chain to obtain clean raw materials

Efforts to reduce carbon emissions by boosting nickel production in fulfilling the battery/EV supply chain are a false solution if raw material production is not obtained via a clean production process. In the context of Indonesia, environmental damage due to nickel mining activities has caused multiple problems for the environment and society. Therefore, all policy stakeholders must encourage and ensure that the battery/EV supply chain is obtained from a low-carbon production process.

d. Strengthening supervision of central and local apparatus

Strict supervision must continue to be carried out to monitor the activities of Chinese companies investing in Indonesia. This supervision needs to be strengthened starting from the central level to the local level in order to ensure that Chinese companies operate in an systematic way by following the established regulations. Not only that, the central and local governments must also ensure that Chinese investment in Indonesia contributes positively to the local economy, for example by creating jobs, building facilities required by communities affected by company activities, and by continuing to encourage improvements in corporate governance by reporting factors pertaining to performance. ESG makes it easier for companies to evaluate and improve so that there is a balance of benefits to be gained from all sides, with respect to the economic, environmental and local community welfare sectors. Indonesia also needs to explore the risk measures which have relatively high risks in three sectors namely, economic risk, business environmental risk and political risk. In 2023, Indonesia's risk measures will still remain far behind Singapore's. Therefore, it is the responsibility of the stakeholders and the community to work diligently to improve this indicator by enabling the central government to provide local governments and business actors with a better understanding to improve indicators that have low scores.

Moreover, the frequent miscommunication between the central government and regional governments is also a sign to improve the communication and organisation of the two. If it is not managed appropriately, this will become an inhibiting factor, especially regarding the issue of the Public Private Partnership (PPP) licensing process which is impractical and efficient. The central government actually made a proposal to address the issue of miscommunication by establishing a Committee for the Acceleration of Providing Priority Infrastructure (KPPIP) in 2016 consisting of the Coordinating Minister for the Economy, Minister of Finance, Minister of PPN/Head of Bappenas, as well as the Minister of Agrarian and Spatial Planning with the aim of monitoring, coordinating and expediting the implementation process. This committee was given privileges and facilities in accorandce with what was specified in Presidential Decree No. 3 of 2016 concerning the Acceleration of Implementation of National Strategic Projects. Nevertheless, all relevant stakeholders still have to ascertain whether this committee is truly effective in addressing the challenges connected with infrastructure development in Indonesia.

Another topic that requires consideration is the preparation of the Medium Term Development Plan regarding investment policies which must be discussed earlier. When the government is replaced by the new government (due to elections), the development plan must include points that the new government must continue in order to ensure that the development process continues. This is because the facts that occur on the ground frequently show that the preparation of investment plans is actually undertaken in the middle of a term of office, giving the impression of being rushed and careless. Therefore, as a record of future improvements, the active participation of the DPRD is essential to carry out its functions so that development plans are structured more effectively with policy outputs that are in favour of the interests of the wider community, not just sectorally. In line with this, significant attention also needs to be paid to foreign investment policies in the country with the Job Creation Law (Ciptaker), which tends to undermine the interests of the wider community and administratively has constitutional challenges. The Ciptaker Law does indeed provide wider employment opportunities through domestic foreign investment, but in substance, this law is considered to be more in favour of investors than the Indonesian people themselves. In the context of Chinese investment in Indonesia, as we all know, in recent years, China has been the dominant foreign investor in the country. It is feared that the issue of the Ciptaker Law's bias towards investors can extend the life of Chinese investment in Indonesia with a myriad of environmental, social and governance issues. Therefore, it is vital that the Ciptaker Law be revised immediately so that attempts to strengthen the supervision of the central and local apparatus can perform well.

e. Strengthening the capacity of Bappenas/Ministry of Finance to ensure China's debt does not become a debt trap

The problem pertaining to the Belt and Road Initiative's lack of transparency and accountability has caused many countries to experience China's debt trap. In the context of Indonesia, this can actually be anticipated and mitigated by strengthening the ability of Bappenas/Ministry of Finance to really understand the debt scheme offered by China and ensure that the debt does not end up in a trap that could damage the country. The government also needs to position Indonesia as an empowered partner so that it can create mutually beneficial relationships. Therefore, it is necessary for Bappenas/Ministry of Finance to have a research division with resources that have the capacity to understand projects implemented by China in various countries, so that expectation and strategy to deal with the politics of the New Silk Road can be controlled. Likewise, another option available to the government relates to diversifying partner countries in future infrastructure projects in order to avoid dependence on China.

f. Revising fiscal incentive regulations that are detrimental to Indonesia

The ratification of Government Regulation in Lieu of Law (Perpu) concerning Job Creation Number 2 of 2022 has had a significant impact on the government's commitment to energy transition efforts, especially in paragraph 5 regarding changes in production fees/royalties of coal downstream products to 0%. This will result in a loss for the country when in fact, the government should be able to receive an additional 5.7% from the coal sector from the total budget deficit in 2023.

Conversely, Investment Coordinating Board is also seeking to make changes to the export tax on Ferronickel and NPI products. In fact, this attempt is quite strategic for three main reasons. First, Ferronickel and NPI products are semi-finished products, so they cannot be called full downstream products. The added value of similar products is enjoyed by industries in China more than Indonesia.

Second, nickel smelter companies have experienced various tax incentive benefits, such as tax holidays and tax allowances so that changes to export taxes are a form of assessment of the necessary fiscal incentives. Third, changes to export taxes will encourage nickel smelter companies to build a complete downstream business, for example it is better to export in the form of batteries than in the form of Ferronickel and NPI.

References

Agbebi, Motolani. 2019. *Exploring the Human Capital Development Dimensions of Chinese Investments in Africa: Opportunities, Implications and Directions for Further Research* 54 (2): 189-210. doi.org/10.1177/0021909618801381.

Allianz. 2023. "Country risk ratings March 2023 reciew." https://www.allianz.com/content/dam/onemarketing/azcom/Allianz_com/economic-research/country-risk/updateq12023/Q12023countryriskratingsEXT.pdf.

Almeyda, Raisa, and Asep Darmansyah. 2019. *The Influence of Environmental, Social, and Governance (ESG) Disclosure on Firm Financial Performance* 5:278-290.

Bao, Nguyen L., Tracy T. LY, Doan C. Tran, Ai V. Tran, An Q. Le, and Alan Hudson. 2022. *The Belt and Road Initiative (BRI): Opportunities and Risks from Vietnamese Perspective* 9 (4): 229-238. doi.org/10.13106/jafeb.2022.vol9.no4.0229.

Campbell, Heidi, Paul B. Raushenbush, and Andrew Chatzky. 2023. "China's Massive Belt and Road Initiative." *Council on Foreign Relations*, February 2, 2023. https://www.cfr.org/backgrounder/chinas-massive-belt-and-road-initiative.

Endarwat, Oktiani. 2021. "Investasi China di RI Meroket Sejak 2015, Ada 72 Proyek Senilai USD21 Miliar." *IDX Channel*, November 2, 2021. https://www.idxchannel.com/economics/investasi-china-di-ri-meroket-sejak-2015-ada-72-proyek-senilai-usd21-miliar.

Gallagher, Kevin P., Rohini Kamal, Junda Jin, Yanning Chen, and Xinyue Ma. 2018. *Energizing development finance? The benefits and risks of China's development finance in the global energy sector* 122:313-321. doi.org/10.1016/j.enpol.2018.06.009.

Gangte, Lamunan Siam. 2020. *The Debt-Trap Diplomacy Revisited: A Case Study on Sri Lanka's Hambantota Port* 19 (2): 53-66. doi:10.12724/ajss.53.4.

Hudayana, Bambang, Suharko, and AB. Widyanta. 2020. *Communal violence as a strategy for negotiation: Community responses to nickel mining industry in Central Sulawesi, Indonesia* 7 (4): 1547-1556. doi.org/10.1016/j.exis.2020.08.012.

Iqbal, M., M. M. Mujib, and Yuliannova Lestari. 2022. Does Omnibus Law Affect the Indonesian Investment Regulations towards Chinese Investors? 5 (2). doi.org/10.24090/volksgeist.v5i2.6838.

Kholis, Nur, Roichatul Aswidah, and Iman Prihandono. 2019. Responsible Investment in Indonesia Mineral Mining Sector 130:300-310.
Koestanto, Benny D. 2019. "Energi Baru China untuk Prakarsa Sabuk and Jalan." Kompas.id, 5 5, 2019. https://www.kompas.id/baca/internasional/2019/05/05/energi-baru-china-untuk-prakarsa-sabuk-and-jalan.

Liu, Chuyu, Thomas Hale, and Johannes Urpalainen. 2022. Explaining the energy mix in China's electricity projects under the belt and road initiative.

Malik, Ammar A., Bradley Parks, Brooke Russel, Joyce J. Lin, Katherine Walsh, Kyra Solomon, Sheng Zhang, Thai-Binh Elston, and Seth Goodman. 2021. "Banking on the Belt and Road: Insights from a new global dataset of 13427 Chinese development projects." AidData, 2021. https://docs.aiddata.org /ad4/pdfs/Banking_on_the_Belt _and_Road__Insights_from _a_new_global _dataset_of_13427_Chinese_development_projects.pdf.

Narain, Divya, Hoong C. Teo, Alex M. Lechner, James E. Watson, and Close Martine Maron. 2022. Biodiversity risks and safeguards of China's hydropower financing in Belt and Road Initiative (BRI) countries 5 (9): 1019-1029. doi.org/10.1016/j.oneear.2022.08.012.

Nath, Siddhartha, and Gusti Raganata. 2020. An Assessment of Economic and Financial Impacts of Jakarta-Bandung High-Speed Railway Project 2 (1): 45-55.Nurgozhayeva, Roza. 2020. Rule-Making, Rule-Taking or Rule-Rejecting under the Belt and Road Initiative: A Central Asian Perspective 8 (1): 250-278.Ofosu, George, and David Sarpong. 2022. China in Africa: On the Competing Perspectives of the Value of Sino-Africa Business Relationships, 137-157. doi.org/10.1080/00213624.2022.2020025.

Pamungkas, Cahyo, and Saiful Hakam. 2019. The Belt Road , Identity Politics, and The Making of Southeast Asian Identity 11 (2): 59-83.

Pratiwi, Fadhila Inas, Novita Putri Rudian, IGB Dharma Agastia, Rifki Dermawan, Masitoh Nur Rohma, Frisca Alexandra, Ariski Aznor, and SD Hardi Alunaza. "China Belt and Road (BRI) in Indonesia's Socio-Economic Security Challenges: A Policy Recommendation." Sorotan Kebijakan Luar Negeri Indonesia Di Mata Akademisi Muda Indonesia. Centre for Strategic and International Studies, 2020.

Richawanudin, Sadam A. 2022. "Merugi di Balik Kebijakan Hilirisasi Nikel." Betahita, October 10, 2022. https://betahita.id/news/detail/8023/merugi-di-balik-kebijakan-hilirisasi-nikel.html?v=1673232038.

Sun, Yixian, and Bowen Yu. 2023. Greening China's Belt and Road Initiative: From Norm Localization to Norm Subsidiarity? 23 (1): 91-116. doi.org/10.1162/glep_a_00685.

Surung, Kein. 2023. "Belt and Road Initiative (BRI) Tiongkok: Pengaruh Ekonomi di Asia Tenggara." Kumparan, January 1, 2023. https://kumparan.com/keinsurung04/belt-and-road-initiative-bri-tiongkok-pengaruh-ekonomi-di-asia-tenggara-1z4RrHDHK1I.

Trend Asia. 2023. "Kecelakaan Kerja di PT GNI: Pengabaian and Pelanggaran Kemanusiaan di Kawasan Industri Nikel Indonesia." February 13, 2023. https://trendasia.org/kecelakaan-kerja-di-pt-gni-pengabaian-and-pelanggaran-kemanusiaan-di-kawasan-industri-nikel-indonesia/.

Tritto, Angela. 2021. China's Belt and Road Initiative: from perceptions to realities in Indonesia's coal power sector 34. doi.org/10.1016/j.esr.2021.100624.

Volcovici, Valerie, David Brunnstrom, and Michelle Nichols. 2021. "In climate pledge, Xi says China will not build new coal-fired power projects abroad." Reuters, September 22, 2021. https://www.reuters.com/world/china/xi-says-china-aims-provide-2-bln-vaccine-doses-by-year-end-2021-09-21/.

Wang, Christoph N. 2023. "China Belt and Road Initiative (BRI) Investment Report 2022 – Green Finance & Development Center." Green Finance & Development Center.https://greenfdc.org/china-belt-and-road-initiative-bri-investment-report-2022/.

Weng, Lingfei, Lan Xue, Jeffrey Sayer, Rebecca Riggs, James D. Langston, and Agni K. Boedhihartono. 2021. Challenges faced by Chinese firms implementing the 'Belt and Road Initiative': Evidence from three railway projects 3. doi.org/10.1016/j.resglo.2021.100074.

Widyanto, Untung. 2019. "Mega proyek belt and road Cina di mata jurnalis mancanegara." Ekuatorial, June 25, 2019. https://www.ekuatorial.com/2019/06/mega-proyek-belt-and-road-cina-di-mata-jurnalis-mancanegara/.

Wolff, Ian. 2023. 12 - Coal resources, production, and use in Indonesia, 361-430. doi.org/10.1016/B978-0-12-824327-5.00008-9.

Ye, Min. 2022. "Ten Years of the Belt and Road: Reflections and Recent Trends | Global Development Policy Center." Boston University, September 6, 2022. https://www.bu.edu/gdp/2022/09/06/ten-years-of-the-belt-and-road-reflections-and-recent-trends/.

Yu, Hong. "China's Belt and Road Initiative and Its Implications for Southeast Asia." Asia Policy, no. 24 (2017): 117–22.

Zheng, Wang, and Yusof Ishak. 2022. "Assessing the Belt and Road Initiative in Southeast Asia amid the COVID-19 Pandemic (2021-2022)." https://www.iseas.edu.sg/articles-commentaries/iseas-perspective/2022-57-assessing-the-belt-and-road-initiative-in-southeast-asia-amid-the-covid-19-pandemic-2021-2022-by-wang-zheng/.

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