



# China Belt and Road Initiative (BRI) Investment Report 2023

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## About this Publication

This brief is produced by the Griffith Asia Institute (GAI) at Griffith University, Brisbane, Australia in collaboration with the Green Finance & Development Center (GFDC) of the Fanghai International School of Finance at Fudan University, Shanghai, PR China.

The brief aims to provide a vehicle for publishing preliminary results on topics related to the Belt and Road Initiative (BRI) to encourage discussion and debate. The findings, interpretations, and conclusions expressed in this paper are entirely those of the author(s) and should not be attributed in any manner to Griffith University, FISF or Fudan University, to its affiliated organisations, or to members of its Board of Executive Directors.

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# Acronyms and abbreviations

AEI	American Enterprise Institute
AIIB	Asian Infrastructure Investment Bank
ASEAN	Association of Southeast Asian Nations
AVIC	Aviation Industry Corporation
BRI	Belt and Road Initiative
BRIGC	Belt and Road Initiative International Green Development Coalition
CATL	Contemporary Amperex Technology Co., Limited
CGIT	China Global Investment Tracker
CNCEC	China National Chemical Engineering Corporation
CNCEC	China National Chemical Engineering Corporation
CNOOC	China National Offshore Oil Corporation
CNPC	China National Petroleum Corp
CPEC	China Pakistan Economic Corridor
CRRC	China Railway Rolling Stock Corporation
EBRD	European Bank for Reconstruction and Development
EIA	Environmental Impact Assessments
ESMS	Environmental and social risk management
EU	European Union
EV	Electronic vehicles
FDI	Foreign direct investments
FISF	Fanhai International School of Finance
GAI	Griffith Asia Institute
GCF	Green Climate Fund
GFDC	Green Finance & Development Center
GIP	Green Investment Principles
GW	Gigawatt
ICBC	Industrial and Commercial Bank of China
ICT	Information Communication Technology
MEE	Ministry of Ecology and Environment
MOFCOM	Ministry of Commerce
MoU	Memorandum of Understanding
MW	Megawatt
OBOR	One Belt One Road
PGI	Partnership for Global Infrastructure
SDG	Sustainable Development Goals
SINOPEC	China Petroleum and Chemical
SMU	Singapore Management University
SOE	State-owned enterprises
UAE	United Arab Emirates
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
USD	United States Dollar

# Contents

China's finance and investments in the BRI	1
Share of investments in China's BRI highest on record	2
Deal sizes are getting bigger again, particularly for investments	3
Regional and country analysis of Chinese BRI engagement	3
Sector trends of BRI engagement	5
Energy-related engagement in the BRI at low levels but with green growth including transmission	7
Transport engagement in the BRI	10
Major players in BRI investments	11
China's BRI investments in a global comparison	12
Outlook for BRI finance and investments	13
Recommendations	14
Appendix 1: About the BRI	16
Appendix 2: Countries of the BRI	17
About the author	18
About Griffith Asia Institute	19
About the Green Finance & Development Center	19
Notes and references	20

## List of figures

Figure 1: China's BRI construction engagement and investments 2013-2023	2
Figure 2: Share of construction and investment engagement in the BRI 2013-2023	2
Figure 3: Deal size of Chinese engagement in the BRI 2013-2023	3
Figure 4: Chinese engagement in different BRI regions since 2013	3
Figure 5: Trends of Chinese BRI engagement across different countries 2023 and comparison of 2022 and 2023 investments and construction engagement	4
Figure 6: BRI investments in different sectors 2013-2023	5
Figure 7: Chinese BRI engagement in different sectors through construction and investment since 2013	6
Figure 8: Technology related BRI investment in 2023	6
Figure 9: Chinese BRI engagement in metals and mining 2013 – 2023 H1	7
Figure 10: Chinese total energy engagement in the Belt and Road Initiative (BRI) 2013-2023	8
Figure 11: Chinese energy engagement through investment and construction in the BRI 2013-2023 by subsector	9
Figure 12: Energy engagement across the supply chain	9
Figure 13: Chinese energy engagement in the Belt and Road Initiative (BRI) by country in 2023 H1	10
Figure 14: Chinese engagement in BRI transport infrastructure 2013-2023	11
Figure 15: FDI trends in 2023, global and by region (billion USD and percentage change compared to 2022)	12
Figure 16: 5-step framework for accelerating green BRI investments after COVID-19	13

# Key findings

- 10 years after the announcement of the BRI, cumulative BRI engagement breached the USD 1 trillion mark (USD 1.053 trillion), with about USD 634 in construction contracts, and USD 419 in non-financial investments;
- China's energy related engagement in 2023 were the greenest in absolute and relative terms in any period since the BRI's inception reaching USD 7.9 billion;
- China is increasingly investing in electricity transmission (over USD 7 billion);
- BRI finance and investments has picked up in 2023 with about 212 deals worth USD 92.4 billion compared to about USD 74.5 billion in 2022;
- Investments as a share of BRI engagement reached record levels at over 52 percent, indicating higher ownership and risk taking of Chinese enterprises;
- In 2023, particularly the technology (+1046 percent)<sup>1</sup> and metals and mining (+158 percent) grew.
- Chinese companies strongly invest in metals and mining, which are particularly relevant to the green transition (e.g., lithium) and batteries for electric vehicles.
- Engagement related to batteries reached about USD 8 billion;
- Africa became the largest recipient of Chinese engagement, overtaking Middle Eastern countries;
- 19 countries saw a 100 percent drop in BRI engagement, including Turkey, and Kenya; Russia saw one deal in 2023, after no engagements in 2022;
- BRI investments in 2023 continue to be dominated by private sector enterprises, including Huayao Cobalt and CATL, while construction contracts were dominated by state-owned enterprises (SOEs);
- In global comparison, Chinese overseas engagement grew, while global FDI into emerging economies in 2023 dropped significantly;
- For 2024, we see further growth of Chinese BRI engagement with a strong focus on BRI country partnerships in renewable energy, mining and related technologies;
- Potential future engagements can be expected in six project types: manufacturing in new technologies (e.g., batteries), renewable energy, trade-enabling infrastructure (including pipelines, roads), ICT (e.g., data centers), resource-backed deals (e.g., mining, oil, gas), high visibility or strategic projects (e.g., railway).

# China's finance and investments in the BRI

Cumulative BRI engagement in the full 10 years since the announcement of the BRI in 2013 breached the USD 1 trillion mark to reach USD 1.053 trillion, about USD 634 in construction contracts, and USD 419 in non-financial investments.

Preliminary data on Chinese engagement through financial investments and contractual cooperation for 2023 in the 149 countries of the BRI<sup>2</sup> show about 212 deals worth USD 92.4 billion.

This compares to USD 74.5 billion BRI engagement in all of 2022—an increase of 18 percent).

Of the 2023 engagement, about USD 44.6 billion was through investment and USD 43.7 billion through construction contracts (partly financed by Chinese loans). China's overall engagement shows a steady development since 2020 from the onset of COVID-19 (see Figure 1).

## About the data:

In November 2023, the Ministry of Commerce (MOFCOM) released new BRI engagement statistics covering the period of January to October 2023.<sup>3</sup>

According to these data, Chinese enterprises invested about USD 25.85 billion in non-financial direct investments in countries "along the Belt and Road" (a year-on-year increase of 20.1 percent). At the same time, the value of newly-signed project contracts by Chinese enterprises in the "Belt and Road" countries was USD 128.42 billion, a year-on-year decrease of 5 percent.

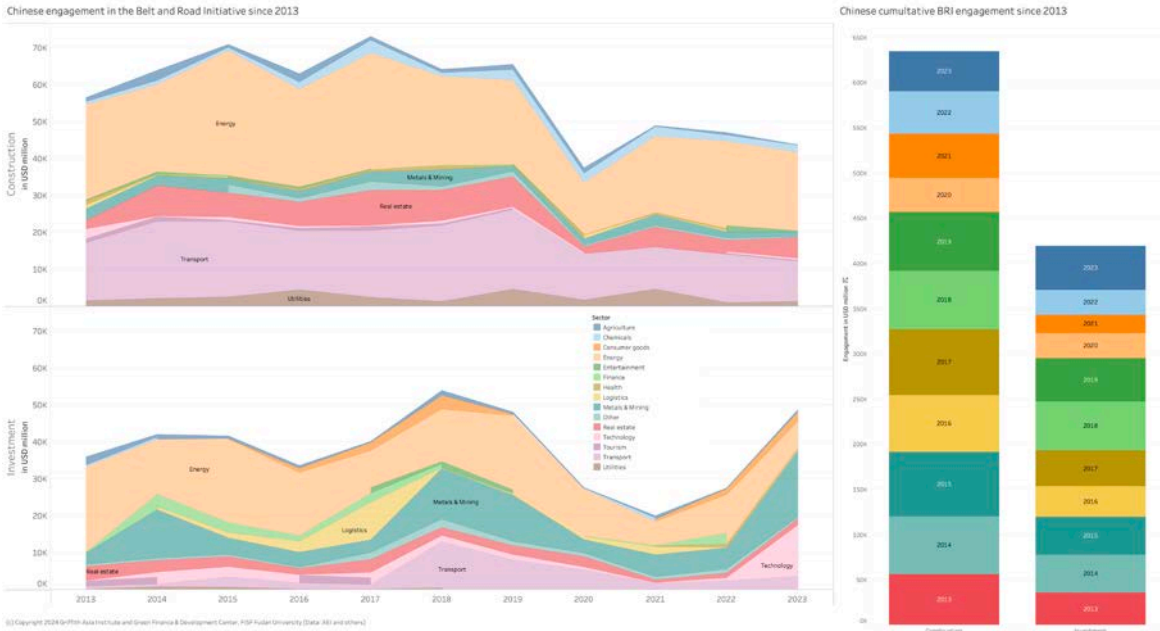
For this report, the definition of BRI countries includes 150 countries that had signed a cooperation agreement with China to work under the framework of the BRI by December 2023.

This analysis is derived from and presents numbers very similar to the China Global Investment Tracker (CGIT), published by the American Enterprise Institute<sup>4</sup>. We expand those data with our own data based on research at Griffith Asia Institute and at the Green Finance & Development Center affiliated with Fudan University, Shanghai. Specifically, the CGIT includes deals with a size of over USD 100 million. We expand the data with more research and granularity for sub-sectors and sub-sectors and adjust, include or exclude projects based on our own information.

We define BRI engagements as those Chinese construction and investment deals in countries that had we identify as having an MoU with China to cooperate under the BRI at the time of the report (thus, if the Syrian Republic signed a BRI MoU in 2022, we also count prior investments into Syria as BRI investments).

As with most data, they tend to be imperfect and need regular updating.

**Figure 1: China's BRI construction engagement and investments 2013–2023**



Source: © 2023 GAI and GFDC (Data AEI and others).

**Share of investments in China's BRI highest on record**

The share of Chinese engagement in the BRI through investments compared to construction has seen its highest levels in 2023: investments reached about 52 percent of BRI engagement compared to 29 percent in 2021.

2023 is the first time that more than 50 percent of the BRI engagement is through investments where Chinese investors take equity stakes with higher risks.

This compares to construction contracts that are typically financed through loans provided by Chinese financial institutions and/or contractors with the project often receiving guarantees through the host country's government institutions (see Figure 2).

**Figure 2: Share of construction and investment engagement in the BRI 2013–2023**



Source: © 2023 GAI and GFDC (Data AEI and others).



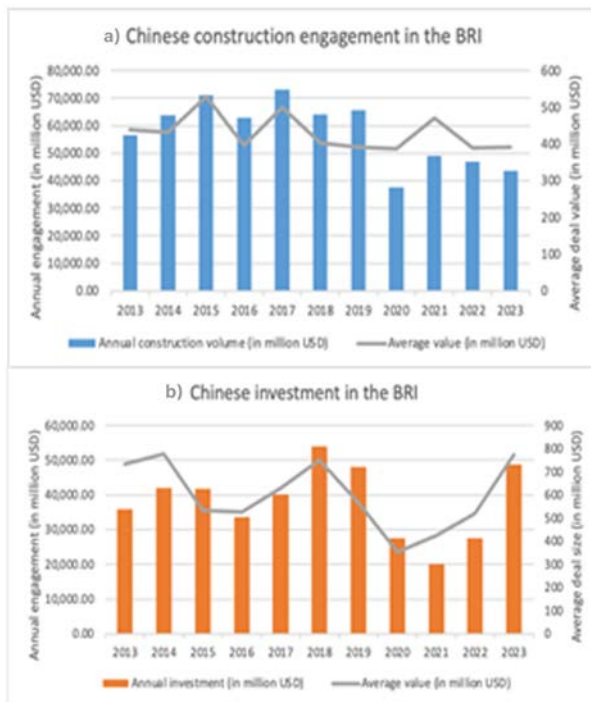
## Deal sizes are getting bigger again, particularly for investments

The average deal size for investments has more than doubled from a low of USD 354 million in 2020 to USD 772 million in 2023. This is the second highest deal size since the BRI's inception in 2013 (2018 had investment deal sizes of USD 749 million).

For construction projects, the deal size in 2023 was the second lowest since the BRI was announced in 2013, with about USD 394 (see Figure 3). Compared to the peak in 2017, this is a 22 percent decrease.

Particularly for construction projects, this trend is likely in line with the ambition to have "small or beautiful projects" in the BRI propagated through official channels. Another reason is that China adjusted its risk management strategies to adjust for BRI country risks that are more pronounced, e.g., due to sovereign debt issues.

Figure 3: Deal size of Chinese engagement in the BRI 2013-2023



Source: © 2023 GAI and GFDC (Data AEI and others).

## Regional and country analysis of Chinese BRI engagement

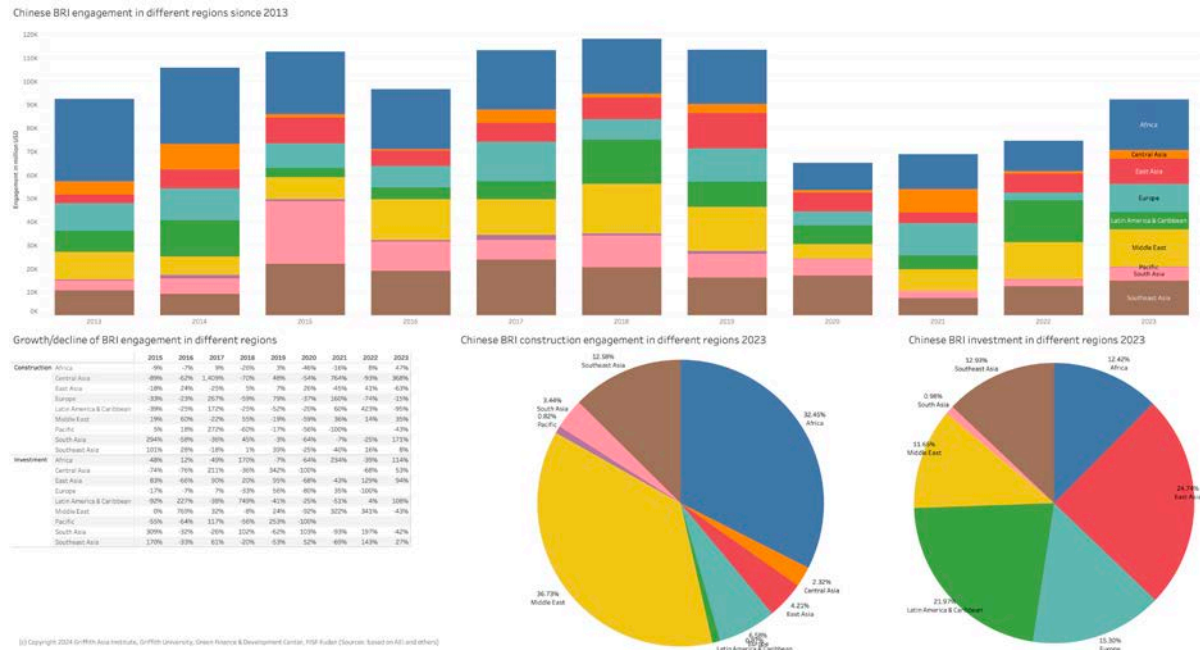
Africa is the largest recipient of BRI engagement with strong growth also in Central Asia. Chinese BRI engagement was not evenly distributed among all regions. BRI countries in Africa saw a 47 percent increase in Chinese construction contracts and a 114 percent increase in investments. In consequence, Africa as a continent became the largest recipient of Chinese engagement worth USD 21.7 billion, overtaking Middle Eastern countries that saw USD 15.8 billion in engagement.

Nevertheless, Middle Eastern countries continued to be major recipients of Chinese construction engagement, receiving 36.7 percent of total BRI construction engagement in 2023, a growth of 31 percent from 2022.

East Asian BRI countries, meanwhile, expanded their intake of Chinese investments by 94 percent to USD 6.8 billion in 2023 (see Figure 4).

Interestingly, Latin American BRI countries saw very little construction engagement in 2023, just USD 180 million (just ahead of Pacific BRI countries receiving USD 170 construction engagement). Yet, Latin American BRI countries saw an increase of 92 percent for their investments to receive about 5.5 billion in investments, taking 20.5 percent of all Chinese BRI overseas investments.

Figure 4: Chinese engagement in different BRI regions since 2013



Source: © 2023 GAI and GFDC (Data AEI and others).

China's financing and investment spread across 61 BRI countries in 2023 (up from 60 in 2022), with 37 countries receiving investments and 45 with construction engagement.

The country with the highest construction volume in 2023 was Saudi Arabia, with about USD 5.6 billion (up from 2.6 billion in 2022), followed by Sri Lanka (USD 4.5 billion), Tanzania (about USD 3.1 billion) and UAE (USD 2 billion).

Regarding BRI investments, Indonesia was the single largest recipient with about USD 7.3 billion in investments, followed by Hungary (USD 4.5 billion) and Peru (USD 2.9 billion).

19 countries saw a 100 percent drop in BRI engagement compared to 2022, including Kenya, Myanmar, Turkey. China's engagement in Pakistan for the China Pakistan Economic Corridor (CPEC) dropped by about 74 percent (see Figure 5).

The countries with the largest growth of BRI engagement were South Korea (+577 percent), Bolivia (+493 percent), Namibia (+457 percent), Tanzania (+415 percent), and Uzbekistan (+375 percent).

After Russia did not receive any Chinese engagement in 2022, China National Chemical Engineering Corporation (CNCEC) joined AEON Corporation to build a methanol plant in Volgograd.<sup>5</sup>

Figure 5: Trends of Chinese BRI engagement across different countries 2023 and comparison of 2022 and 2023 investments and construction engagement



Source: © 2023 GAI and GFDC (Data AEI and others).

## Sector trends of BRI engagement

In 2023, particularly the technology (+1046 percent) and metals and mining (+158 percent) grew compared to 2022.

The focus of China's overseas BRI engagement continued to be on infrastructure, particularly in energy (31 percent) and transport (16 percent), which is a significant reduction, particularly in the energy sector (down from 45 percent in 2022). The mining sector overtook the transport sector, constituting 21 percent of Chinese overseas engagement (see Figure 6).

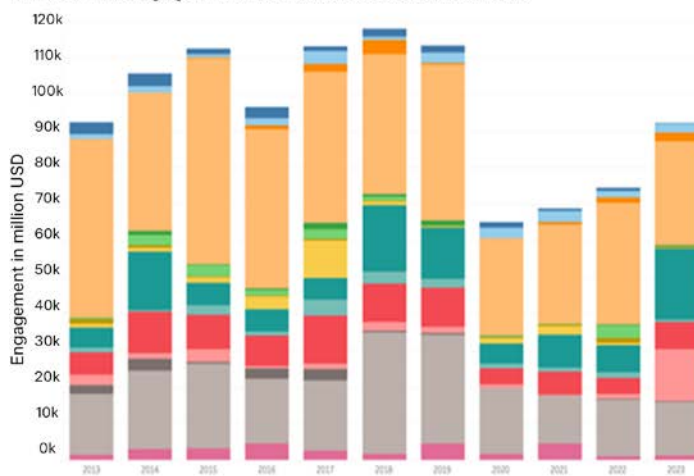
### About technology:

in 2023, we summarised all electric vehicle and car-related investments into technology, which were previously partly located in the transport sector.

The finance, utilities and health sectors saw significant drops.

**Figure 6: BRI investments in different sectors 2013-2023**

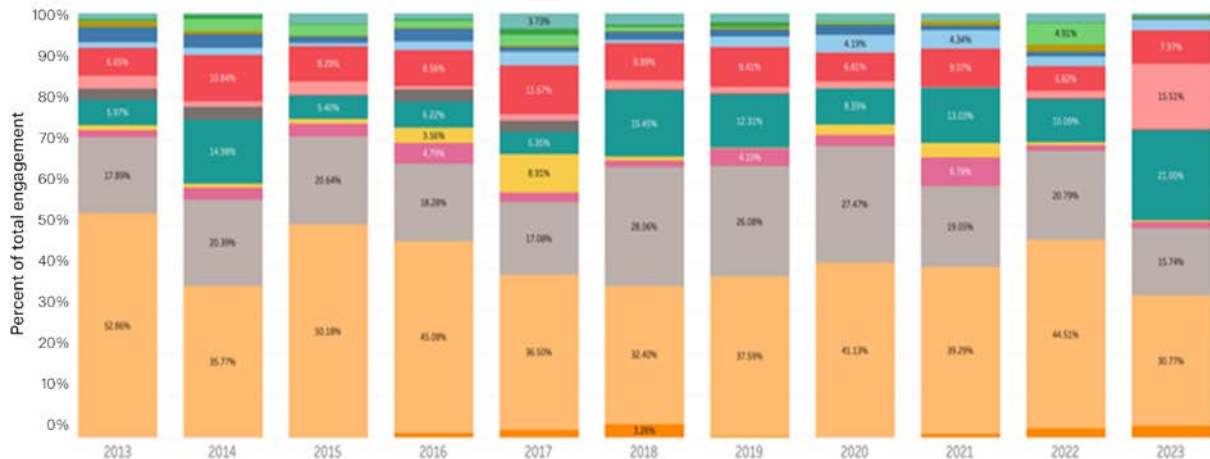
Chinese BRI engagement in different sectors since 2013



Growth/decline of BRI engagement in different sectors

	2016	2017	2018	2019	2020	2021	2022	2023
Agriculture	95%	-5%	73%	-11%	-20%	-50%	8%	-51%
Chemicals	125%	83%	-75%	229%	-5%	10%	-44%	32%
Energy	-23%	-5%	-7%	12%	37%	1%	23%	-14%
Entertainment	400%	236%	-62%	100%	-88%	-100%		63%
Finance	-52%	71%	-54%	-81%	-22%	-44%	1,560%	-100%
Health	-13%	165%	-79%	130%	-50%	423%	91%	-62%
Logistics	144%	133%	89%	-80%	630%	35%	-77%	-18%
Metals and Mining	-1%	1%	201%	-23%	-61%	66%	-16%	158%
Real Estate	-11%	58%	-20%	2%	-59%	41%	-31%	70%
Technology	-81%	146%	45%	-29%	-37%	88%	793%	1,046%
Transport	-24%	9%	71%	-11%	-40%	-27%	18%	-6%
Tourism	820%	6%	-85%	-11%	-100%			7%
Utilities	41%	-44%	-31%	160%	-63%	169%	-78%	27%
Other	-54%	230%	-24%	-22%	-49%	-7%	36%	-61%
Consumer goods	800%	90%	73%	-89%	-100%		147%	60%

Sector share of BRI engagement since 2013

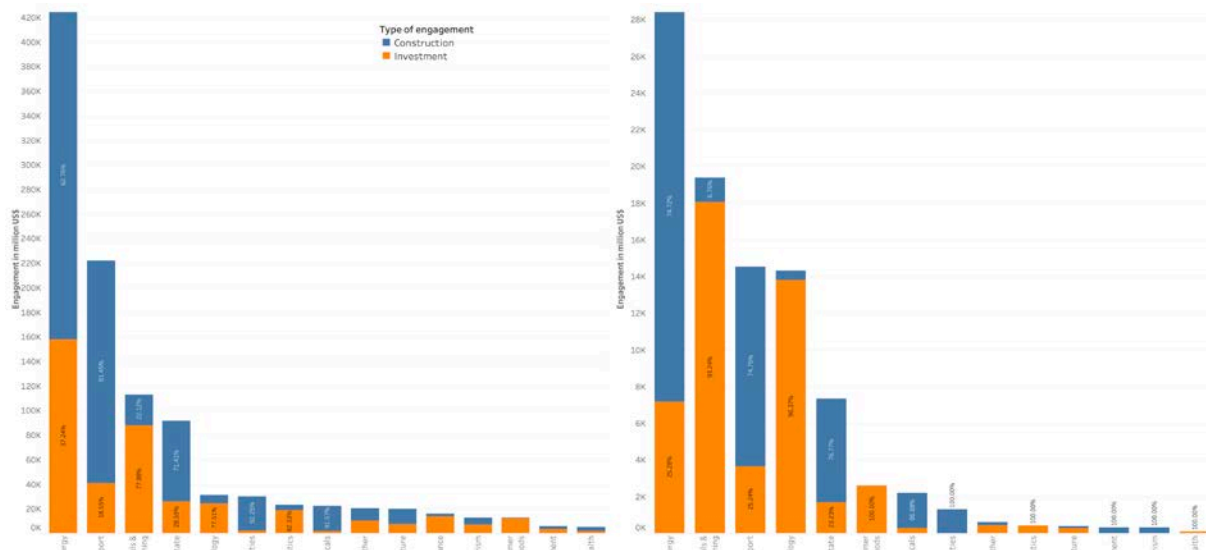


Source: © 2023 GAI and GFDC (Data AEI and others).

When looking at China's engagement strategy in these sectors distinguished by construction and investment, it becomes clear that investment with equity shares and thus higher risk within the Chinese

organisations becomes an increasingly important strategy particularly in mining, technology, and transport (see Figure 7).

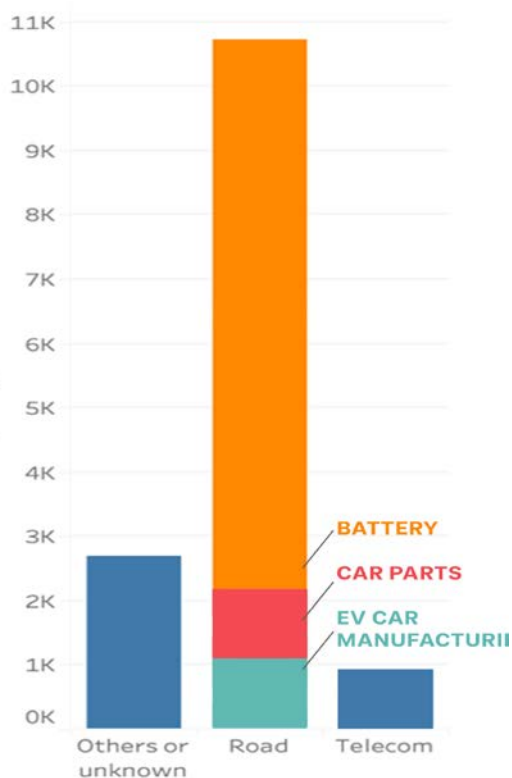
Figure 7: Chinese BRI engagement in different sectors through construction and investment since 2013



Source: © 2023 GAI and GFDC (Data AEI and others).

One important growth sector is technology which reached over USD 14.3 billion in engagement in BRI countries with a focus on battery, car parts, EV manufacturing, as well as telecoms (see Figure 8). Some noteworthy engagements include investments into electric vehicles, such as battery production with Zhejiang Huayou Cobalt in collaboration with LG in South Korea, or Zhejiang Hezhong’s EV car manufacturing in Thailand. Outside of the BRI, BYD established a car manufacturing in Brazil.

Figure 8: Technology-related BRI investment in 2023



Source: © 2023 GAI and GFDC (Data AEI and others).

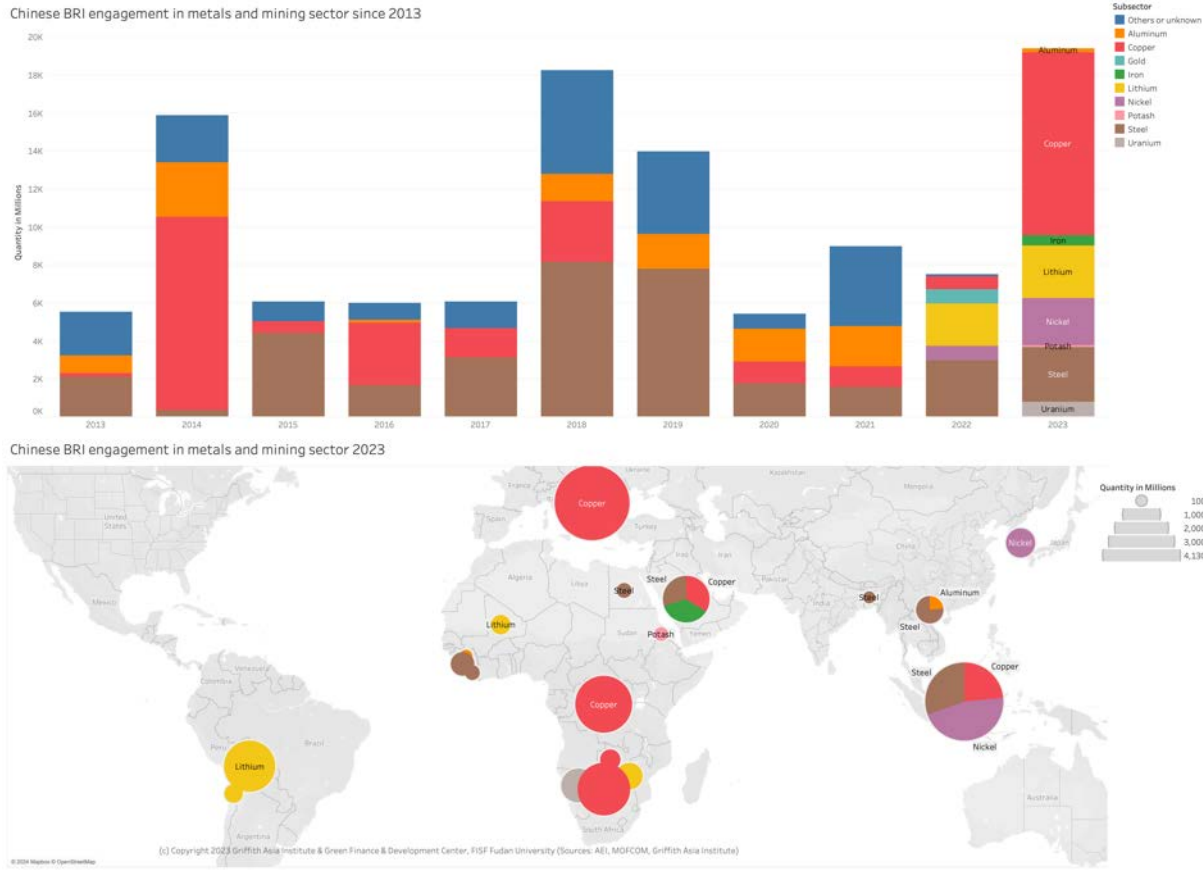
A manufacturing plant related to renewable energy technology was the Goldwind agreement for the implementation of a wind turbine industrial unit worth around USD 36 million, which will generate about 1,100 direct and indirect jobs.<sup>6</sup>

In Indonesia, Tria Solar, Sinar Mas, Agra Surya Energi and Indonesia’s government-owned power company PLN agreed to construct Indonesia’s largest solar cell and solar panel factory in Central Java.<sup>7</sup>

Another important growth area of strategic importance is China’s engagement in metals and mining reaching USD 19.4 billion. Engagement in the sector has grown by 158 percent compared to 2022 and reached the highest level since 2013. The minerals and metals are particularly relevant to the green transition (e.g., lithium) and batteries for electric vehicles. Engagement has been strong in various African countries, Bolivia and Chile in Latin America, and Indonesia. China already holds significant shares of global mining sources (e.g., over 80 percent of global graphite resources), and even more control in material processing (where across lithium, nickel, cobalt and graphite, China owns more than 50 percent of global capacity).<sup>8</sup>

Examples include vertical integration investments by the world’s largest battery manufacturer CATL, which bought the share’s for a nickel mining concession in Indonesia from PT Aneka Tambang Tbk (Antam).<sup>9</sup> Others are a lithium mining operation in Mali by Jiangxi Ganfeng or through Hainan Mining’s acquisition of Kodal Minerals part of a lithium mine in Mali<sup>10</sup>, a copper processing plant agreement in Saudi Arabia<sup>11</sup>, and a commissioning of a lithium processing plant in Zimbabwe<sup>12</sup> (see Figure 9).

Figure 9: Chinese BRI engagement in metals and mining 2013 – 2023 H1



Source: © 2023 GAI and GFDC (Data AEI and others).

### Energy-related engagement in the BRI at low levels but with green growth including transmission

China’s energy-related engagement in 2023 was the greenest since the BRI’s inception in 2013: in 2023, China’s green (solar, wind) energy engagement was about USD 7.9 billion, about 28 percent of energy engagement, plus an additional 6 percent (USD 1.6 billion) into hydropower.

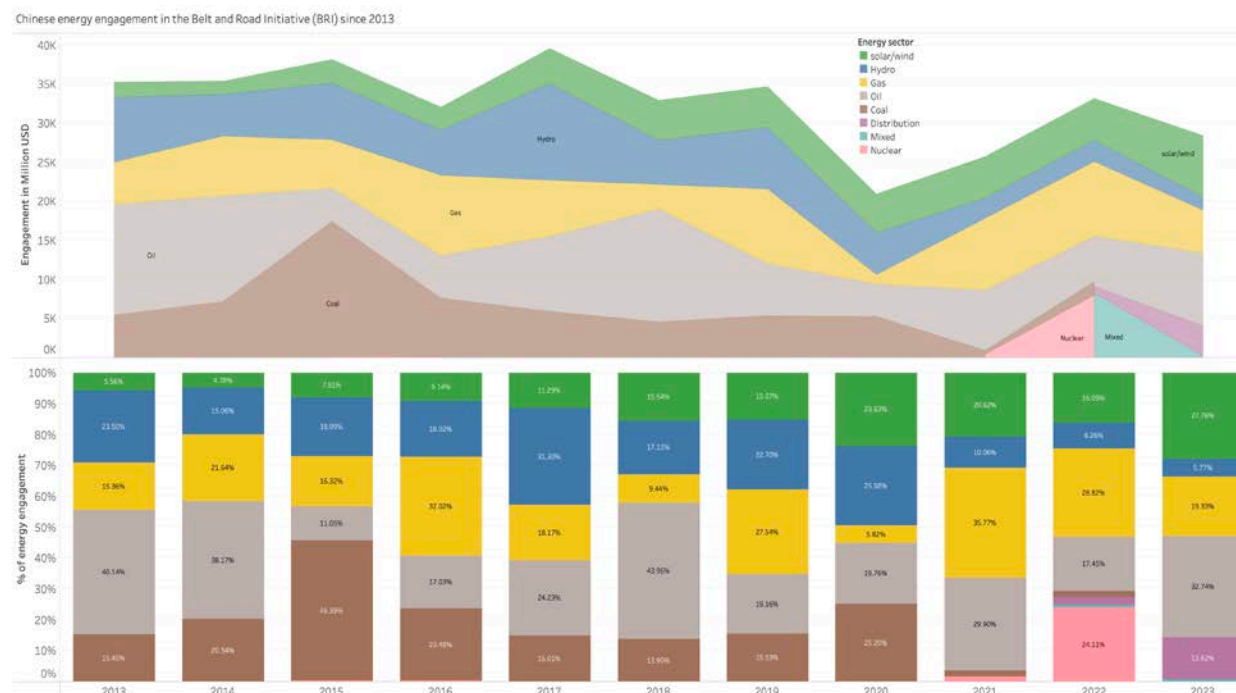
**About energy-related transmission:**  
Starting with this report, we include energy-related transmission engagement.

Chinese engagement related to the energy sector constitutes the largest share of China’s BRI engagement. In 2023, total engagement in the energy sector reached short of USD 30 billion—which is the lowest BRI energy engagement except for 2020.

A particular development is increased green energy (solar, wind and biomass) engagement, which reached records of USD 7.9 billion (this number does not include Chinese export of solar equipment).

Also, engagement in distribution systems (e.g., substations, power lines) constituted more than 11 percent of Chinese BRI energy engagement (see Figure 10).

Figure 10: Chinese total energy engagement in the BRI 2013–2023



Source: © 2023 GAI and GFDC (Data AEI and others).

## Coal

Following China's announcement in September 2021 to not to build new coal fired power plants, select new coal-fired power projects seem to progress.

In January 2024, a new 380 MW coal-fired power plant unit, Labota No. 7 built by Chinese companies, started operation<sup>13</sup>, the Pakistan government approved a 300 MW of coal fired power in Gwadar, Pakistan in January 2023<sup>14</sup> to be constructed by China. While Pakistan had announced in December 2020 to not build new coal-fired power plants, various sources report that China was interested in providing financial and technical support for the project<sup>15</sup>—including the design that requires import of coal (rather than using possibly more affordable domestic coal in Pakistan).<sup>16</sup> However, no financial closing has been announced, which is why this project is not included in the 2023 H1 dataset.

## Oil and gas

Oil and gas engagement fell slightly to USD 15.7 billion (52 percent of Chinese overseas energy engagement), USD 6.4 billion in gas and 9.3 USD billion in oil.

A major deal was the USD 4.5 billion engagement by Sinopec in Sri Lanka to build an oil refinery, which was approved in November 2023.<sup>17</sup>

Rumors of an 8 GW gas power plant in Yakutia, Russian Far East, with China's Power China from June 2023 have not yet been confirmed.

Oil-related investments dropped to zero in 2023 after years with several higher profile projects inside and outside the BRI (e.g., China's CNOOC engaged in a USD 1.9 billion production sharing deal with Petrobras to explore Brazil's Buzlos field).<sup>18</sup>

At the same time, BRI partners invested in China to support oil development, such as Aramco's investment in a petrochemical complex in Panjin City, Liaoning Province.

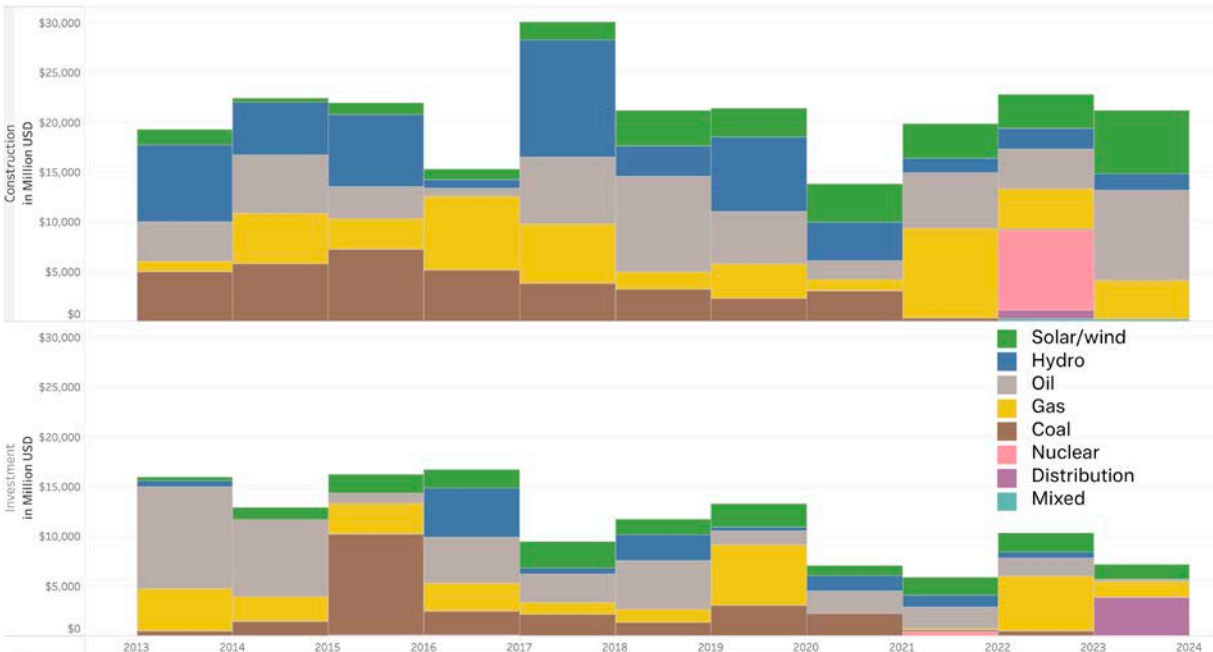
## Green energy/hydropower

China's total engagement in green energy (solar and wind) and hydropower amounted to about USD 9.5 billion in 2023. This compares to USD 8.1 billion in 2022 (see Figure 10).

Looking at investment only, Chinese green energy and hydropower investment decreased to USD 1.5 billion in 2023 from USD 2.1 billion in 2022.

Meanwhile, construction projects related to green energy (including hydropower) increased from USD 5.6 billion in 2022 to USD 8.1 billion in 2023.

**Figure 11: Chinese energy engagement through investment and construction in the BRI 2013-2023 by subsector**



Source: © 2022 GFDC (Data AEI, GDPC, MOFCOM and others).

Energy engagement across the supply chain

China’s engagement across the energy supply chain has evolved in the data frame from 2022 to 2023. While in both years, energy generation was most important for China’s BRI engagement, exploitation (particularly in oil and gas) has decreased significantly from USD 12.7 billion to USD 6.1 billion. Meanwhile, transmission engagement, crucial for the green transition, has increased from USD 4.5 billion to over USD 7 billion (see Figure 12).

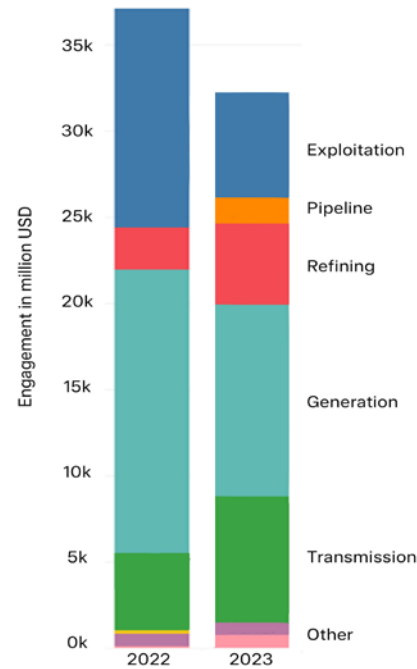
Energy engagement in different countries

Analyzing Chinese energy engagement in different BRI countries, we find that, Sri Lanka took the top spot due to Sinopec’s engagement in building an oil refinery. Similar to 2022, also Saudi Arabia held a top spot as the country that received the most energy engagement in 2023 (USD 3.7 billion), followed by Peru (USD 2.9 billion). Contrary to the previous year, Saudi Arabia also received a significant share (19 percent) of green energy engagement. Peru, meanwhile, received all of its engagement in transmission projects, where China Southern Power Grid International bought the distribution, supply, and energy services assets from Italian energy company Enel<sup>19</sup>. (see Figure 12).

Overall, the most important partner for China’s BRI energy engagement since the BRI’s initiation in 2013 remains Pakistan, which has received USD 28 billion through investment and construction contracts (most

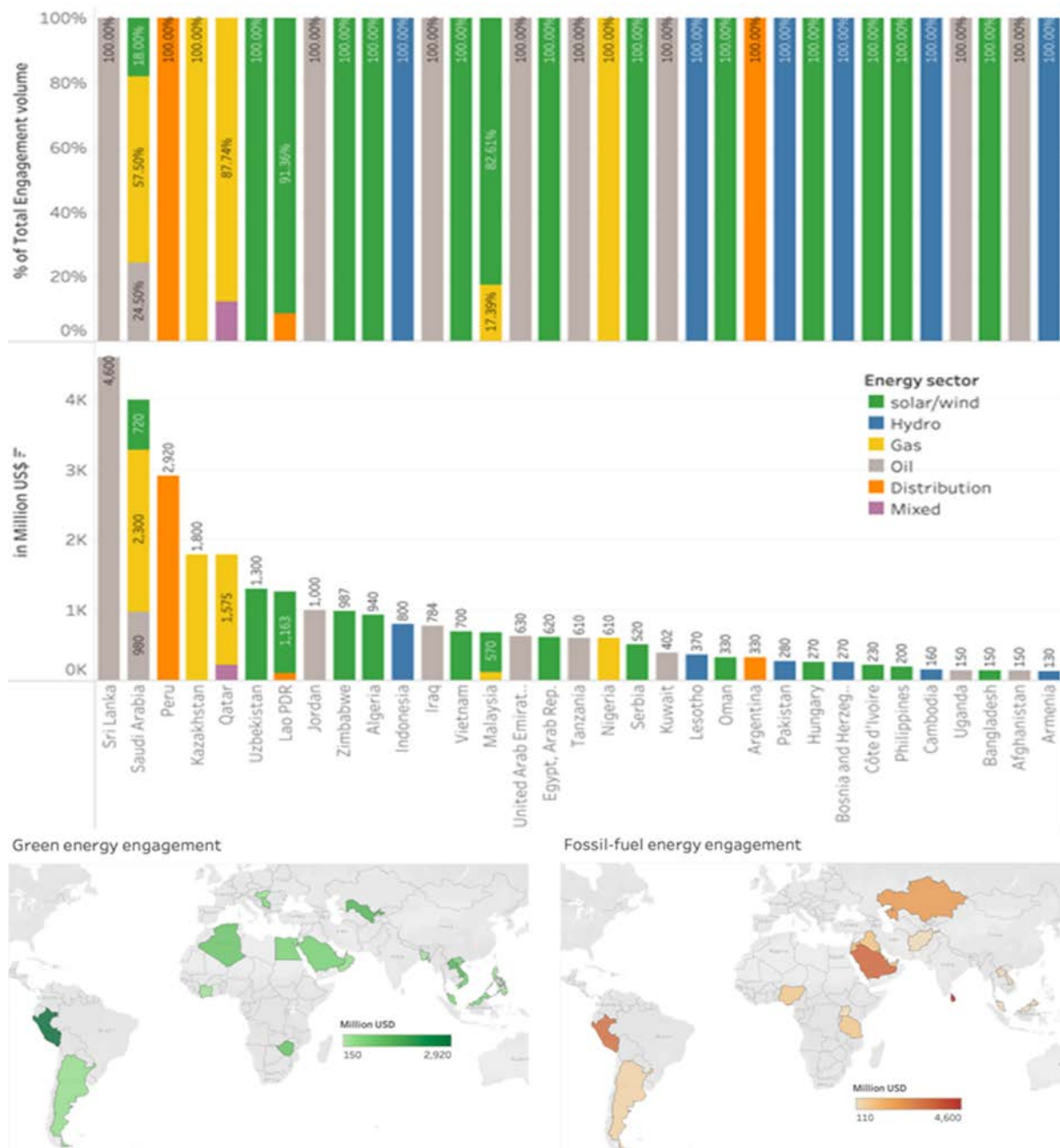
of which in hydropower and coal). Pakistan is followed by Russia and Saudi Arabia. An interesting case for China’s energy investment is Zimbabwe: after a cancelled coal-fired power plant in 2021, Zimbabwe saw strong engagement in green energy through an agreement on a 1GW floating solar station<sup>20</sup> in 2023.

**Figure 12: Energy engagement across the supply chain**



Source: © 2023 GAI and GFDC (Data AEI and others).

Figure 13: Chinese energy engagement in the BRI by country in 2023



Source: © 2023 GAI and GFDC (Data AEI and others).

## Transport engagement in the BRI

Transport-related engagement is key to providing the means to trade between China and the BRI countries—where trade is a core component of the BRI. Accordingly, China has invested in and constructed projects in road, rail, aviation, shipping, and logistics across the world (see Figure 13).

**Aviation:** Two projects were announced, including the upgrade of the runway of Honiara Airport in Solomon Island by China Railway Construction.

**Rail:** Total rail engagement was worth USD 4.2 billion (all but one through construction contracts) with engagements in Africa, Latin America and East Asia, such as the Kinshasa urban railway in the Democratic Republic of Congo.

Also, China engaged through its CRRC to manufacture rail wagons and wheels in Saudi Arabia.<sup>21</sup>

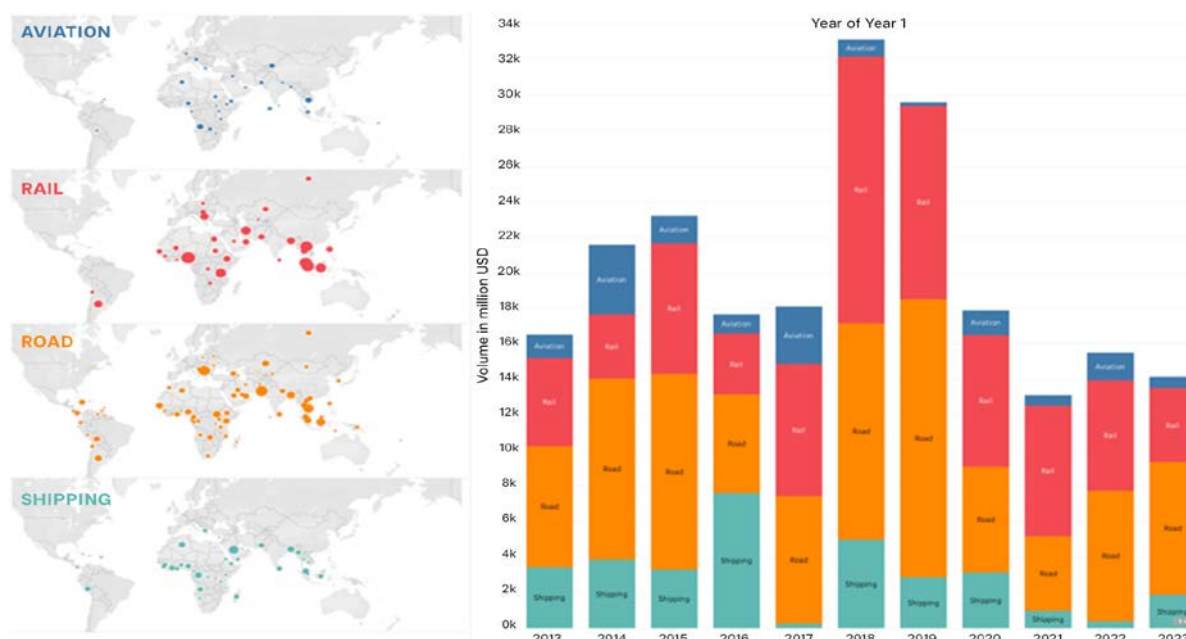
Other noteworthy projects include an agreement on the tram project in Colombia<sup>22</sup>.

**Road transport:** China continues to engage in road construction projects across many countries worth USD 7.5 billion. Examples include a toll road in Cambodia worth about USD 1.6<sup>23</sup> billion.

**Ports:** Some shipping and port-related project investments were announced in 2023, such as an agreement with Saudi Arabia to support Aramco's corporation shipping projects.



**Figure 14: Chinese engagement in BRI transport infrastructure 2013–2023**



Source: © 2023 GAI and GFDC (Data AEI and others).

### Major players in BRI investments

Among the major players for BRI investments in 2023 were—contrary to most years before—not exclusively Chinese SOEs, but private enterprises (see Table 1).

For investment projects, Contemporary Amperex Tech (CATL), the world’s largest battery producer,

led ahead of Zhejiang Huayou Cobalt (both private companies).

The Chinese companies most prominently featured in construction projects in the BRI in 2022 was Power China, followed by China Petroleum and Chemical (Sinopec) and China National Petroleum Corp (CNPC). This development for construction projects is in line with last years’ trends.

**Table 1: Major Players in BRI investments in 2023 (parent companies)**

#### Largest Chinese investors in the BRI in 2023 (parent companies)

	% of total
Contemporary Amperex Tech	15.2%
Zijin Mining	10.8%
Southern Power Grid	9.3%
Zhejiang Huayou Cobalt	8.8%
China Molybdenum	5.4%
Minmetals	5.1%
Alibaba	4.0%
China Communications Construction	3.5%
China Petroleum and Chemical (Sinopec)	3.5%
Shandong Xinhai, BaoWu Steel (Baosteel)	3.4%
GEM	3.3%
Hailiang	2.3%
Bytedance	2.3%
China National Nuclear	2.1%
West China Cement	2.1%
Shenzhen Xingyuan	1.9%
Aviation Industry Corp. (AVIC)-led consortium	1.8%
Hefei Xinmei Materials	1.7%
China Communications Construction, Guangxi Beibu	1.6%
China Railway Construction	1.6%
Inventronics	1.6%
Hunan Zhongwei	1.6%
Zhonghuan International Group	1.4%
BYD	1.4%
China National Petroleum Corp. (CNPC)	1.4%
China Energy Engineering	1.4%

Source: © 2023 GAI and GFDC (Data AEI and others).

#### Largest Chinese construction companies in the BRI in 2023 (parent companies)

	% of total
Power Construction Corp. (PowerChina)	20.1%
China Petroleum and Chemical (Sinopec)	16.8%
China National Petroleum Corp. (CNPC)	10.1%
China Railway Construction	9.8%
China Energy Engineering	8.0%
China Communications Construction	7.8%
China National Building Material	5.7%
China National Machinery Industry (Sinomach)	5.5%
State Construction Engineering	4.7%
Power Construction Corp. (PowerChina), Dongfang Electric	3.0%
China Energy Construction Corporation	2.5%
China Railway Engineering	1.6%
Minmetals	1.6%
China National Chemical Engineering	1.5%
China Three Gorges	1.3%

# China's BRI investments in a global comparison

Foreign direct investments (FDI) to developing countries fell to USD 841 billion in 2023, a drop of 9 percent, according to UNCTAD's Global Investment Trends Monitor, published in January 2024.<sup>24</sup>

Particularly developing countries in Asia saw a steep decline of FDI, registering a 12 percent drop. FDI into Africa and Latin America, meanwhile, remained more stable.

In Asia, developing economies remained nevertheless attractive destinations for greenfield projects, despite drops of FDI of 6 percent in China and 47 percent in India. Similarly, ASEAN economies saw a decline of 16 percent—despite a 37 percent increase in greenfield investments.

Middle Eastern countries saw a rise in greenfield announcements, led by a 28 percent increase of FDI in the UAE.

African FDI flows, meanwhile stayed stable at an estimated USD 48 billion with strong engagement in Morocco, Kenya, and Nigeria. An issue seemed to have been infrastructure engagements, which dropped by more than 30 percent in Africa.

Also, Latin American economies saw a decrease in FDI, such as a drop of FDI by 22 percent in Brazil (particularly project finance).

Worrisome is the first decline (17 percent) in international project finance deals for renewable energy since the Paris Agreement.

Looking ahead, UNCTAD expects a modest increase in FDI flows in 2024 with moderate inflation and tempered borrowing costs. However, geopolitical risks and high debt levels remain a concern for global FDI flows.

**Figure 15: FDI trends in 2023, global and by region (billion USD and percentage change compared to 2022)**

	Foreign direct investments	Growth, 2022–2023
<b>World</b>	1 365	+3 (-18)*
Developed economies	524	+29 (-28)*
Europe	70	..
North America	377	0
Other developed economies	77	-46
Developing economies	841	-9
Africa	48	-1
Latin America and the Caribbean	209	0
Asia	584	-12

Note: \* Growth rates in brackets are calculated excluding major conduit economies.

Source: UNCTAD, based on FDI/MNE database ([www.unctad.org/fdistatistics](http://www.unctad.org/fdistatistics)) and information from The Financial Times Ltd, fDi Markets ([www.fDimarkets.com](http://www.fDimarkets.com)) and Refinitiv SA.

# Outlook for BRI finance and investments

Chinese finance and investments into the BRI countries in 2023 have accelerated.

For 2024, a further recovery of BRI investments and construction contracts seems possible. On the one hand, there is clear need for investments to green boost growth to support the green transition both in China and in BRI countries. This provides great opportunities for mining and minerals processing deals, technology deals (e.g., EV manufacturing, battery manufacturing) and green energy (e.g., energy production and transmission). China refers to these industries (electric vehicles, batteries and renewable energy) as the “New Three”.

Furthermore, continuing post-COVID-19 investments by global financial institutions, including developing finance institutions (such as the World Bank, Asian Development Bank, AIIB) provide infrastructure development opportunities for Chinese contractors.

We do expect Chinese BRI engagement to reach levels at least as high in 2024 as in 2023. Part of this

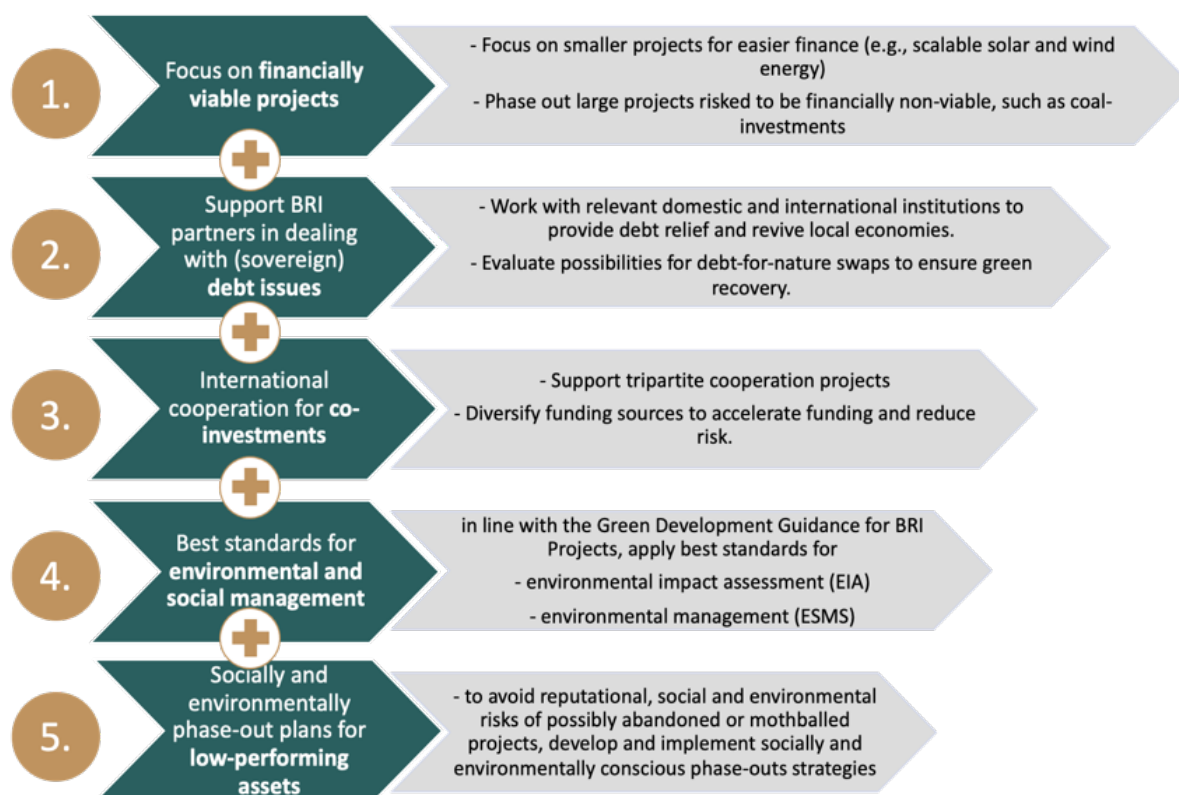
expectation is driven by challenges in China's domestic economic development, where Chinese companies seek opportunities in other countries.

In line with our previous predictions, we continue to see deal numbers increasing. With strong engagement in sectors requiring significant investment (e.g., mining, manufacturing), compared to sectors with variable engagement (e.g., renewable energy), we can expect deal size to also remain larger than in 2021 and 2022.

At the same time, we see two types of large strategic project types to continue that might not have direct financial benefits: transport infrastructure engagements (such as in strategic rail and road to connect mines), and resource-backed deals (such as in oil, gas pipelines).

To move the BRI investments forward, we expand our recommendations from the previous reports:

Figure 16: 5-step framework for accelerating green BRI investments after COVID-19



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# Recommendations

# 1

Focus on projects that are financially sustainable and cut losses in non-profitable projects

Investors in BRI projects within China and outside China should focus on smaller projects that are easier to finance and faster to implement. Particularly in infrastructure and energy investments, scalable solar

and wind investments seem viable, as long as local conditions provide the relevant grids to handle renewable energy supply.

With decreasing energy cost for renewable energy, we also see an opportunity to invest in early phase-out of existing older coal projects, which would be both economically and environmentally relevant.

# 2

Support partner-countries and partner businesses in dealing with (sovereign) debt-repayment of already invested BRI projects, e.g., through debt-for-nature swaps and nature performance bonds.

Debt is a major concern for future growth in many BRI countries. As we found in our in-depth analysis of debt in BRI countries, China has a unique opportunity to support BRI countries in dealing with their debt both bilaterally and multilaterally. Dealing with the debt issue is crucial for providing BRI countries with the necessary fiscal space for future investments.

While debt-for-resource or debt-for-equity swaps might seem beneficial for China in the short-term to reduce the debt burden in the BRI countries, these swaps tend to undermine future domestic growth opportunities for BRI countries. Rather, Chinese relevant stakeholders together with international partners through multilateral frameworks should support green recovery by swapping part of the debt for nature and providing necessary frameworks to increase transparency and accountability of the use of funds.

Furthermore, sustainable debt instruments could be applied to raise more funds, e.g., through nature performance bonds.

# 3

Increase international cooperation for BRI projects to allow existing and useful projects to go ahead also in difficult times.

Tripartite cooperation with international financial and implementation partners can support BRI projects through better access to financial resources, risk sharing and knowledge sharing. Particularly non-SOEs that often have a higher burden of accessing investments from Chinese large financial institutions could benefit through broader access to finance, as witnessed for example in the Zhanatas wind farm in Kazakhstan, co-financed by EBRD, AIIB, GCF and ICBC, while it was build and is operated by China International power Holding<sup>25</sup>. Also, Chinese financial institutions could benefit to de-risk project finance by broaden their international cooperation. A report "China Third-Party Market Cooperation for Infrastructure Finance Financing Mechanism Handbook" had been released in September 2021 to accelerate tri-partite project finance.<sup>26</sup>

In addition, with European Union (EU) launching its "Global Gateway" and the US pushing its "Partnership for Global Infrastructure" (PGI), competition for the BRI is increasing. However, if cooperation for project finance and development in emerging markets is the goal, Chinese investors and developers can accelerate their cooperation with both public and private financial institutions from various economies, particularly if they manage to share standards.

# 4

Increase use of common environmental and social standards in project evaluation (e.g., environmental impact assessment EIA) and for environmental and social risk management (ESMS)

In July 2021, the Ministry of Commerce, together with the Ministry of Ecology and Environment, issued the Guidelines for Greening Overseas Investment and Cooperation<sup>27</sup> and in January 2022, the Guidelines for Ecological Environmental Protection of Foreign Investment Cooperation and Construction Projects<sup>28</sup>. Within these Guidelines, Chinese developers are encouraged to adhere to international or Chinese environmental standards, particularly in countries whose domestic environmental standards and governance does not meet international standards.

This is a formalisation of a number of previous Guidances, including the "[Green Development Guidance for BRI Projects Baseline Study](#)" and the "Application Guide for Enterprises and Financial Institutions" backed by various relevant Chinese ministries published by the BRI Green Development Coalition (BRIGC) in December 2020 and October 2021 respectively. These guidance calls for Chinese overseas investors to apply independent environmental impact assessments (EIA) and strict environmental and social risk management (ESMS) to ensure projects and investments are minimising environmental harm and maximising environmental benefits. Also, the Green Investment Principles (GIP) integrate sustainability into corporate governance, requiring boards to understand environmental, social and governance risks, as well as disclosing environmental information.

By applying international standards, Chinese financial institutions can more easily raise capital on the global capital markets, accelerate co-financing with international partners and take responsibility to fulfill the goal of building a "Green Belt and Road".

# 5

Develop socially and environmentally conscious phase-out strategies for non-performing investments

Several investments in the BRI have had to be stopped, mothballed or cancelled due to financial (e.g., difficulties in financing or servicing debt) and operational reasons (e.g. due to travel restrictions or problems in supply chains). According to our study, over 50 percent of announced coal-fired power plants have been mothballed.

To avoid reputational, social and environmental risks arising from stopped, mothballed or cancelled projects, plans should be developed and implemented by financial institutions including insurance companies, developers, local governments and relevant Chinese authorities that compensate any losses to workers and companies up to a specific extent, and that ensure that nature around mothballed and particularly stopped projects can be remediated. This also helps avoid having skeleton constructions serve as a reminder of unfinished projects.

# Appendix 1: About the BRI

The Belt and Road Initiative (BRI) China's main international cooperation and economic strategy. The BRI is also known as the "One Belt One Road" (OBOR), the "Silk Road Economic Belt and the 21st-century Maritime Silk Road" or just the "New Silk Road". Its Chinese name is 一带一路 (yi dai yi lu). It was announced by Chinese President Xi Jinping in Kazakhstan in October 2013.

The construction of the BRI is anchored in the Chinese constitution.

## Goals of the BRI – and how to make it green

The BRI has officially "five goals":

- policy coordination,
- facilities connectivity,
- unimpeded trade,
- financial integration, and
- people-to-people bonds.

Over the past years, the emphasis on developing a "green" and "high-quality" BRI has accelerated. The Ministry of Environmental Protection (now Ministry of Ecology and Environment) had published the Guidance on Promoting Green Belt and Road already in 2017. The document stresses the relevance of the "ecological civilisation", "green development concepts", "principles of resource efficiency and environmental friendliness" within the five goals of the BRI.

During the 2019 Belt and Road Forum, green and sustainable development of the BRI took center stage, together with debt sustainability. Accordingly, the Ministry of Ecology and Environment jointly initiated the BRI International Green Development Coalition (BRIGC) and international partners. With its 10 working groups, the BRIGC aims to support green development, in e.g.,

- green finance
- green transport
- green innovation
- green urbanisation
- green standards

In 2020, the MEE and several relevant ministries backed the Green Development Guidance for BRI Projects Baseline Study published by BRIGC. The Guidance lays out 9 recommendations for greening the BRI and an initial project taxonomy ("traffic light system" that distinguishes projects with high environmental risk (red projects) and projects with environmental benefits ("green projects"). In 2021, an implementation Guide for financial institutions and project developers was published. Also, in 2021, the Green Development Guidelines for Overseas Investment and Cooperation were published by MOFCOM and MEE, while the same ministries published the Guidelines for Ecological Environmental Protection of Foreign Investment Cooperation and Construction Projects in January 2022 to stress relevant environmental risk management practices.

Find an overview of relevant policy documents for the BRI at the [Belt and Road Initiative \(BRI\) Policies Database–Green Finance & Development Center \(greenfdc.org\)](https://www.greenfdc.org/).

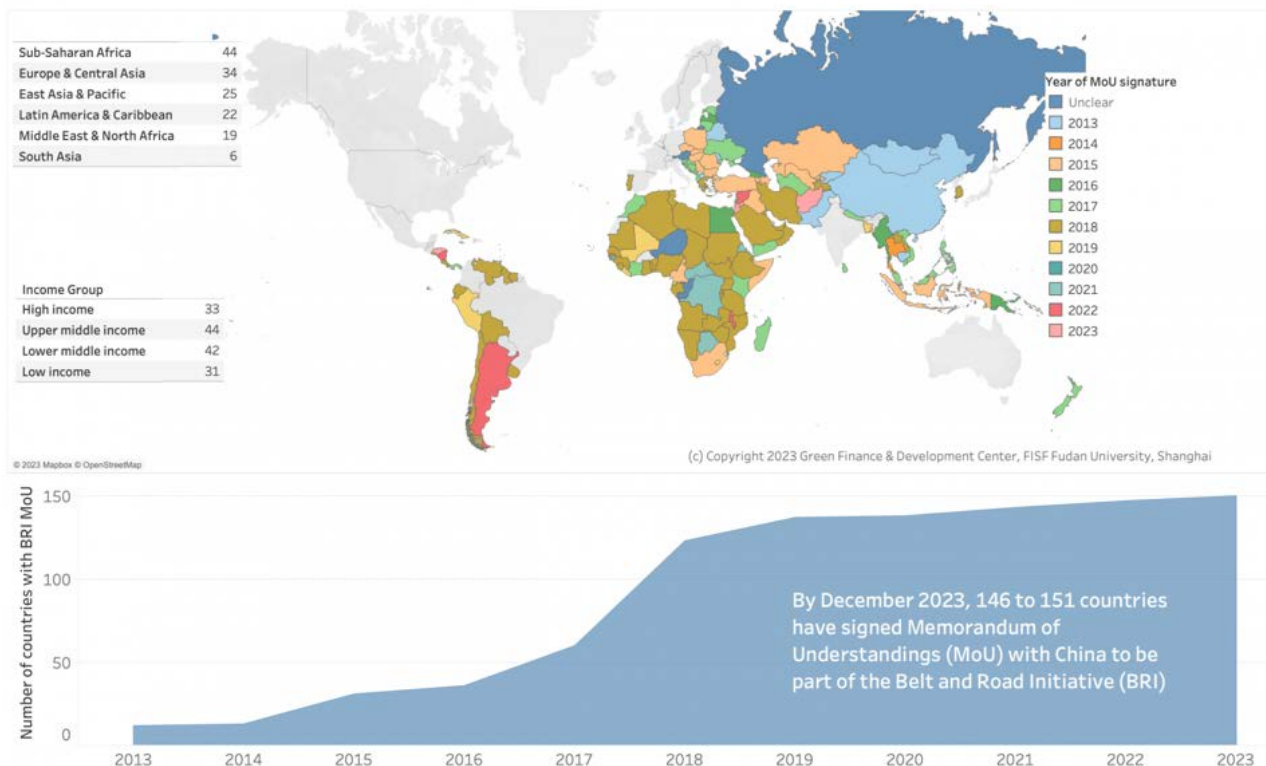
# Appendix 2: Countries of the BRI

According to official information, in January 2023, 150 had signed cooperation agreements for the BRI. For countries and organisations to "join" the BRI, China and the respective country or organisation sign a Memorandum of Understanding (MoU).

For 5 countries listed in official Chinese media (yidaiyilu.gov.cn), we could not confirm a signature of an MoU for bilateral cooperation under the BRI framework.

The following BRI map shows the list of countries that have signed MoUs or are said to be members of the BRI. You can find a more detailed list of countries of the BRI at [Countries of the Belt and Road Initiative \(BRI\) – Green Finance & Development Center \(greenfdc.org\)](https://www.greenfdc.org/en/countries-of-the-belt-and-road-initiative-bri/).

Countries of the Belt and Road Initiative



# About the author



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Christoph regularly provides advisory to governments, financial institutions, enterprises, and civil society on sustainable development issues. He is the lead author of the UNDP SDG Finance Taxonomy, the Innovative Climate Finance Solutions report for the G20 in Indonesia, and the Green Development Guidance of the BRI Green Development Coalition under the Chinese Ministry of Ecology and Environment. He has authored four books and published articles in Science and other leading journals. Christoph serves as board director in scaling sustainability in businesses and finance.

Christoph is quoted regularly in Financial Times, The Economist, Reuters, Bloomberg, and other major outlets. Before joining Griffith University, he served as Founding Director of the Green Finance & Development Center and Associate Professor at the Fanhai International School of Finance (FISF), Fudan University and previously as Founding Director for the Green BRI Center at the Central University of Economics in Beijing. He worked with the World Bank in over 15 countries and was a Director in the German development agency GIZ. Christoph holds a Master of Engineering and a PhD in Economics from the Technical University Berlin, as well as a Master of Public Administration from Harvard Kennedy School.





# About Griffith Asia Institute

Griffith Asia Institute (GAI) at Griffith University, Brisbane, Australia, is an internationally recognised institute providing knowledge, and solutions for sustainable development in Asia-Pacific. With a history of over 20 years, GAI has forged strong partnerships with key decision-makers in business, policy and with research institutions across the region. With over 80 faculty members and 50 adjunct members, GAI works in multidisciplinary teams and draws on a wide range of technical expertise in energy, finance, policy, and economics as well as in regional studies including a strong China component.

GAI is led by Professor Christoph Nedopil Wang and is organised through knowledge and regional hubs:

The Green Transition and Sustainable Development Hub addresses major challenges and opportunities for Asian and Pacific economies in addressing SDGs related to climate, life on land, life in the sea, partnerships, infrastructure and energy.

The Governance and Diplomacy Hub addresses major challenges and opportunities in the region for peaceful co-existence, diplomacy, inclusive governance, policymaking and institution building.

The Inclusive Growth and Rural Development Hub addresses major challenges and opportunities in the region regarding currently underserved communities (e.g., women, indigenous, youth, rural, or people with disabilities).

The four regional hubs address major regional and country-specific challenges and opportunities in (1) Southeast Asia, (2) South Asia, (3) Pacific and (4) China and the Region, each with their own hub lead.

<https://www.griffith.edu.au/asia-institute>

# About the Green Finance & Development Center

The Green Finance & Development Center (GFDC) is a leading research center that provides advisory, research and capacity building for financial institutions and regulators for green and sustainable finance in China and internationally.

The GFDC works at the intersection of finance, policy, and industry to accelerate the development and use of green and sustainable finance instruments to address the climate and biodiversity crisis, as well as contribute to better social development opportunities.

The topics of our work at the Green Finance & Development Center respond to the needs and developments of the financial markets and related policies in China and internationally, while we also aim to provide evidence-based advisory and research for future policies and strategies to accelerate the greening of finance in policy and practice.

The Green Finance & Development Center was founded in 2021 by Christoph Nedopil Wang. It is associated with the Fanhai International School of Finance (FISF) at Fudan University in Shanghai, PR China.

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