



# China Belt and Road Initiative (BRI) Investment Report 2022

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# China Belt and Road Initiative (BRI) Investment Report 2022

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## Key findings

- **BRI finance and investments is steady** in 2022 at USD67.8 billion, compared to USD68.7 billion in 2021;
- **Investments as a share of BRI engagement reached record levels** at 48%, up from 29% in 2021 and compared to an average of 40%;
- Since 2013, **cumulative BRI engagement amounts to USD962 billion**, about USD573 billion in construction contracts, and USD389 billion in non-financial investments;
- **New coal-related projects and plants** were announced in 2022, including coal mining in Indonesia;
- **Energy-related engagement at lowest levels** at USD24.1 billion – compared to **strong technology manufacturing engagement**, e.g., a USD 7.6 billion investment in a Gigafactory
- **Fossil fuels constituted about 63% of Chinese BRI overseas energy engagement** particularly in gas pipelines, possibly undermining global climate goals;
- **Green energy engagement (solar, wind, hydro) in 2022 increased 50%**: investments by USD0.1 billion to USD2.7 billion; construction projects by USD1.9 billion to USD5.3 billion;
- **14 countries saw a 100% drop in BRI engagement**, including Angola, Nepal, Peru, Russia, and Sri Lanka;
- **Engagements with Sub-Saharan Africa and West Asia dropped to lowest levels**, while Arab and Middle Eastern countries could expand their share of Chinese engagement;
- **Major beneficiary countries of Chinese investments were Hungary** (USD7.6 billion), Saudi Arabia, and Singapore. The Philippines and Argentina were main beneficiaries of Chinese construction engagement;
- **Average deal size for construction projects was the smallest since 2013**, dropping from USD496 million in 2021 to USD330 million in 2022; average deal size for investment projects increased, driven by few large transactions, such as battery producer CATL's USD7.6 billion investment in Hungary;
- **BRI investments** in 2022 were unusually **dominated by private sector enterprises, including CATL and Alibaba**, while construction contracts were dominated by state-owned enterprises (SOEs);
- In 2022, **global FDI into emerging economies developed similar** to China's BRI engagement – with a mixed bag of growth and decline;
- **For the 2023, further rebound of Chinese BRI engagement is possible** with a removal of COVID-related travel restrictions particularly relevant for Chinese developers;
- Potential future engagements can be expected in **five project types**: manufacturing in new technologies (e.g., batteries), 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).



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## China's finance and investments in the Belt and Road initiative (BRI)

Chinese engagement through financial investments and contractual cooperation for 2022 in the 147 countries of the Belt and Road Initiative<sup>1</sup> was about USD67.8 billion based on over 200 deals. This about equal to China's BRI engagement in 2021 at USD68.7 billion. Of this engagement, about USD32.5 billion was through investments, and USD35.3 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).

**Cumulative BRI engagement since the announcement of the BRI in 2013 is USD962 billion, about USD573 in construction contracts, and USD389 in non-financial investments.**

### About the data:

In January 2023, the government owned newspaper China Daily released new BRI engagement statistics, likely based on Ministry of Commerce (MOFCOM) data covering the period of January to November 2022.<sup>2</sup>

According to these data, Chinese enterprises invested about USD19.6 billion in non-financial direct investments in countries "along the Belt and Road" in 2022 (a year-on-year increase of 6.5%). Furthermore, the value of newly signed projects was USD98.19 billion. The MOFCOM data usually focus on 55 countries that are "along the Belt and Road" – meaning on a corridor from China to Europe including South Asia.<sup>3</sup>

For this report, the definition of BRI countries includes 147 countries that had signed a cooperation agreement with China to work under the framework of the Belt and Road Initiative by December 2022. We base our data on the China Global Investment Tracker<sup>4</sup> and our own data research at the Green Finance & Development Center affiliated with FISF Fudan University, Shanghai. The data include deals with a size of over USD100 million and we count BRI engagements as those in countries that had an MoU with China to cooperate under the BRI (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.

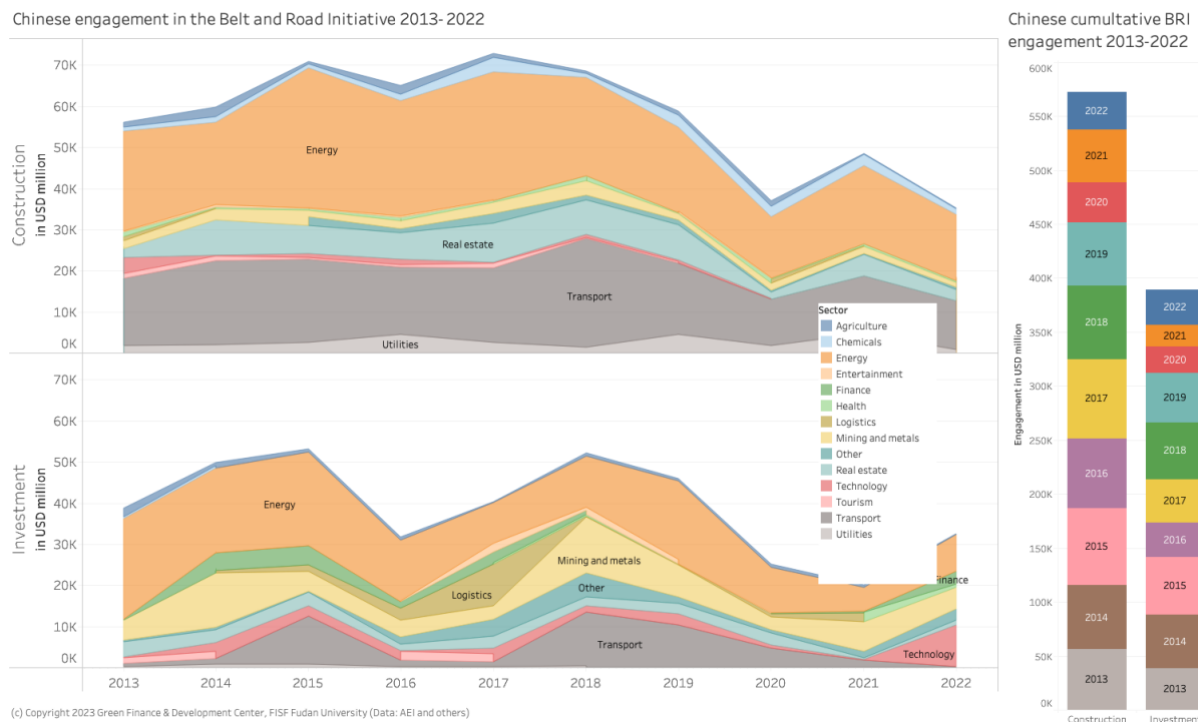
<sup>1</sup> <https://greenfdc.org/countries-of-the-belt-and-road-initiative-bri/>

<sup>2</sup> [https://global.chinadaily.com.cn/a/202301/06/WS63b751c0a31057c47eba7ecd\\_4.html](https://global.chinadaily.com.cn/a/202301/06/WS63b751c0a31057c47eba7ecd_4.html)

<sup>3</sup> <https://mp.weixin.qq.com/s/jzOoljBBr3N7LjUYd3bBw>

<sup>4</sup> <http://www.aei.org/china-global-investment-tracker/>

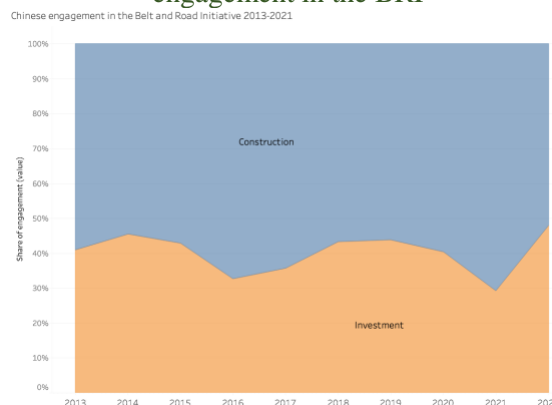
Figure 1: China's BRI construction engagement (top) and investments (bottom) 2013-2022, cumulative (right)



### 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 2022: investments reached about 48% of BRI engagement compared to 29% in 2021. Many of the construction contracts are 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



### Investment deal size is getting larger, construction smaller

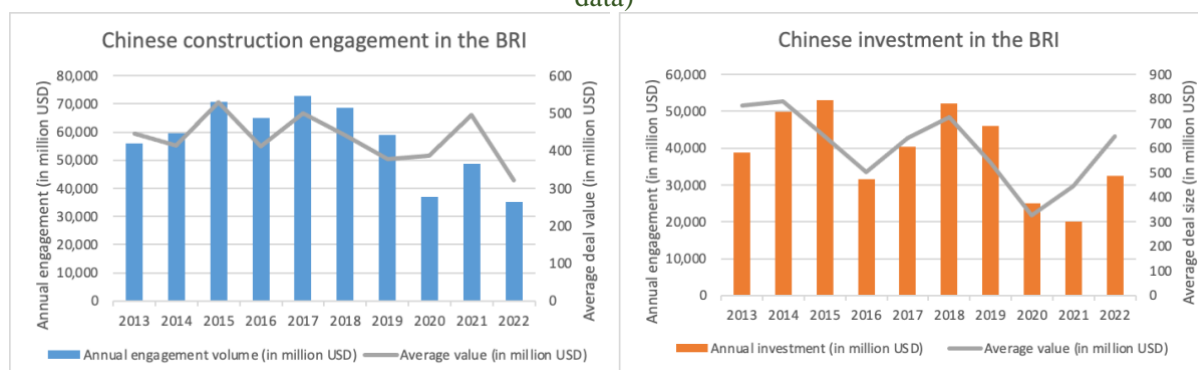
The average deal size for investments has increased from about USD444 million in 2021 to USD650 million in 2022. This is the highest value since 2019. Compared to the peak in 2014, the investment deal size is 21% smaller.

For construction projects, the deal size in 2022 was the lowest since the BRI was announced in 2013, with about USD321 million in 2022 compared to USD496 million in 2021 (see Figure 3).

A reason seems to be that some large investment deals were resource backed (e.g., mining, oil, gas) as well as significant investments into battery production in

Hungary driving up average values. In contrast, construction projects tended to be smaller, possibly as they rely on sovereign guarantees that became harder to secure due to tighter recipient government budgets and adjusted risk management models of Chinese financial institutions in the global economic uncertainty.

Figure 3: Deal size of Chinese engagement in the BRI: left, for construction projects; right investments (Source: Green Finance & Development Center, FISF Fudan University, based on AEI data)

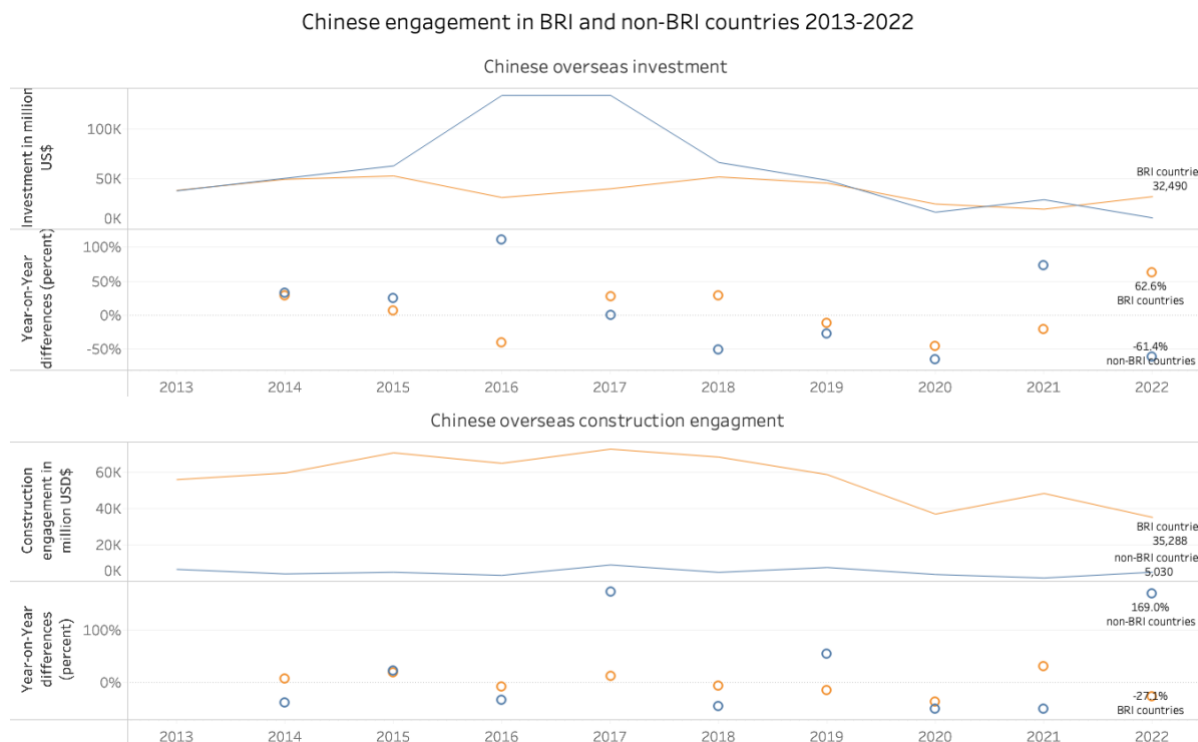


**BRI countries continue to significantly outperform non-BRI countries**

Chinese total engagement through construction and investment activities in the BRI in 2022 were about USD50 billion

higher than in non-BRI countries: in investment deals, BRI countries outperformed non-BRI countries by USD21 billion; in construction engagement, BRI countries outperformed non-BRI countries by USD30 billion.

Figure 4: Chinese overseas investment (top) and construction engagement (bottom) 2013 – 2022 in BRI versus non-BRI countries



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### Regional and country analysis of Chinese BRI engagement

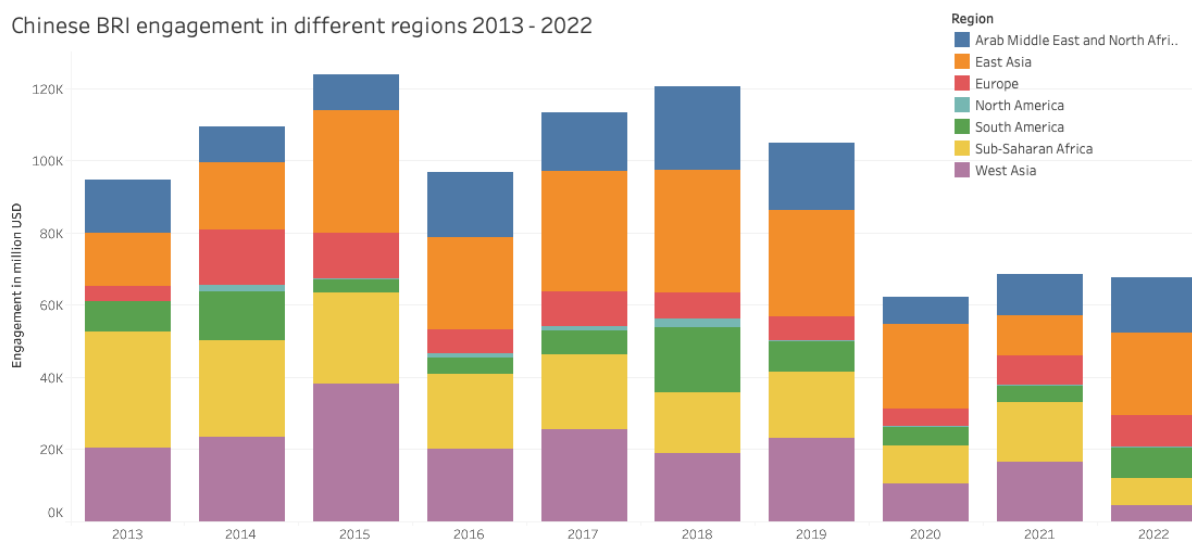
#### Strong growth in East Asia, as well as in Middle Eastern countries, and significant slump in Sub-Saharan African countries

Chinese BRI engagement was not evenly distributed among all regions. BRI countries in East Asia saw a 151% increase in Chinese investments and 76% increase in construction contracts and became the dominant recipient (34% of the total) for Chinese engagement. Middle Eastern countries

also expanded their cooperation with China and received about 23% of Chinese BRI engagement in 2022 (up from 16.5%) (see Figure 5) and about 21% of Chinese investment volume – twice the share of 2021. Contrary, Sub-Saharan Africa saw their highest drop of China’s engagement in both construction (-44%) and investment (-65%) compared to 2021. Similarly, West Asia saw significant drops in Chinese engagement.



Figure 5: Chinese engagement in different BRI regions



Share of BRI engagement in different regions

	Construction								Investment							
	2015	2016	2017	2018	2019	2020	2021	2022	2015	2016	2017	2018	2019	2020	2021	2022
East Asia	14.82%	20.55%	16.44%	21.14%	19.88%	30.91%	13.61%	32.94%	44.27%	38.53%	53.32%	37.73%	38.43%	47.91%	22.37%	34.53%
West Asia	36.41%	20.81%	29.95%	18.43%	23.71%	15.59%	30.02%	8.93%	23.33%	21.11%	9.04%	12.11%	19.94%	18.53%	10.16%	3.91%
Sub-Saharan Africa	29.91%	25.64%	25.49%	18.44%	24.17%	24.24%	16.62%	12.72%	7.61%	12.55%	5.67%	8.03%	9.26%	7.00%	42.49%	9.14%
Arab Middle East and ..	13.93%	25.21%	16.48%	28.89%	23.62%	19.36%	19.24%	24.39%	0.36%	4.71%	9.91%	6.48%	10.40%	1.43%	10.26%	20.90%
South America	3.74%	3.92%	6.85%	5.39%	1.67%	0.76%	5.06%	17.36%	1.56%	6.64%	4.16%	27.35%	16.14%	19.13%	10.11%	8.13%
Europe	0.42%	3.04%	3.17%	3.94%	6.68%	8.52%	14.87%	3.29%	22.86%	14.54%	17.89%	8.30%	5.83%	6.00%	4.60%	23.39%
North America	0.76%	0.83%	1.62%	3.77%	0.27%	0.62%	0.58%	0.37%		1.93%						

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China’s financing and investment spread across 54 BRI countries in 2022, with 26 countries receiving investments and 47 with construction engagement. The country with the highest construction volume in 2022 was the Philippines, with about USD3.3 billion, followed by Argentina (about USD3.3 billion) and Indonesia (USD2.5 billion). Regarding BRI investments, Hungary was the single largest recipient with about USD7.6 billion in investments, followed by Saudi Arabia (USD5.6 billion) and Singapore (about USD 2.5 billion).

**14 countries saw a 100% drop of BRI engagement compared to 2021, including Russia<sup>5</sup>, Angola, Sri Lanka, Nepal, and Peru.** China’s engagement in Pakistan for the China Pakistan Economic Corridor (CPEC) dropped by about 34% (see Figure 6).

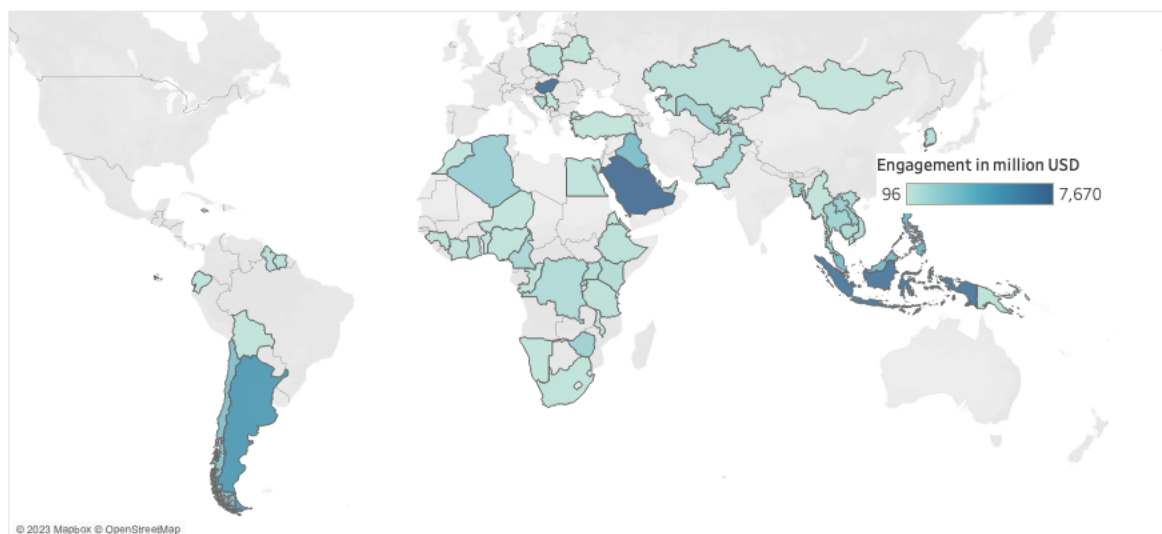
The countries with the **largest growth of BRI engagement** were Hungary (+6,233 %), Malaysia (+877%), Philippines (+578%), Cambodia (+371%), and Argentina (+371%).

<sup>5</sup> Some sources (e.g., <https://sputniknews.cn/20221108/1045342672.html>) claim that Chinese investments into Russia had

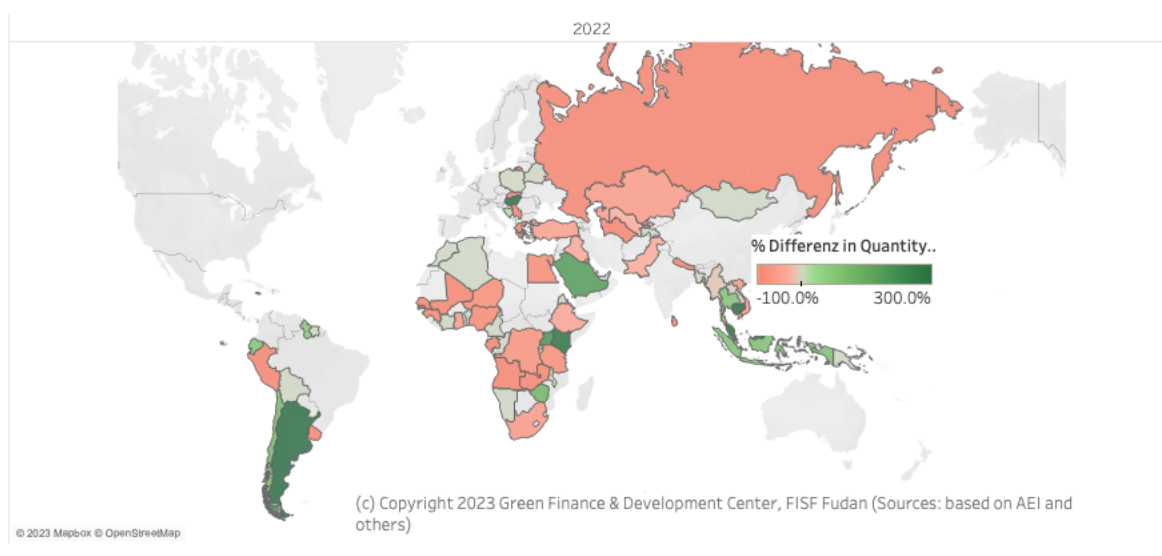
increased to 450 million USD in the first 8 months of 2022. No data could be found substantiating that claim.

Figure 6: Trends of Chinese BRI engagement across different countries 2022 (top) and comparison of 2021 and 2022 (bottom)

Chinese total engagement in the Belt and Road Initiative (BRI) in 2022



Growth/decline of Chinese BRI engagement 2021 - 2022



### Sector trends of BRI engagement

The focus of China’s overseas BRI engagement continued to be in infrastructure, particularly in energy (36%) and transport (18%), up from a combined value of 60% in 2021.

**In 2022, particularly the finance and technology sector experienced a significant growth of engagement of 3,450% and 7,536% respectively compared to 2021** (see Figure 7). A reason for the expansion is the significant

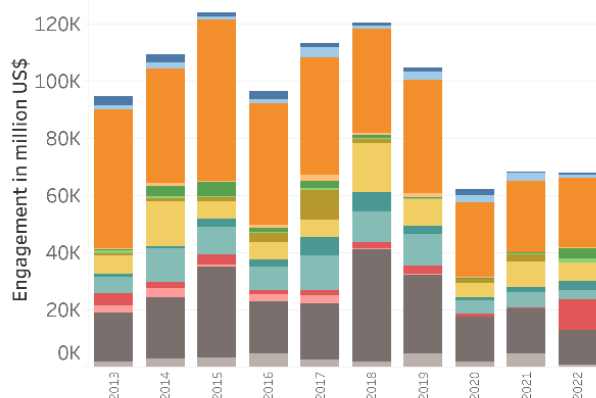
expansion of technology manufacturing. For example, in August, China’s largest battery producer CATL announced it would build a USD7.6 billion 100 GWh battery plant. This would be Europe’s largest battery plant and CATL’s largest overseas investment. Similarly, also non-BRI countries saw significant battery-production investments. Germany, for example, saw an expansion of Svolt’s engagement to build a second battery cell plant close to Tesla’s factory in

Brandenburg (close to Berlin). Also, the United States saw engagement by the battery producer Envision, which invested

USD700-800 million to build a 30 GWh factory in South California to supply German car producer BMW.

Figure 7: BRI investments in different sectors

Chinese BRI engagement in different sectors 2013 - 2022

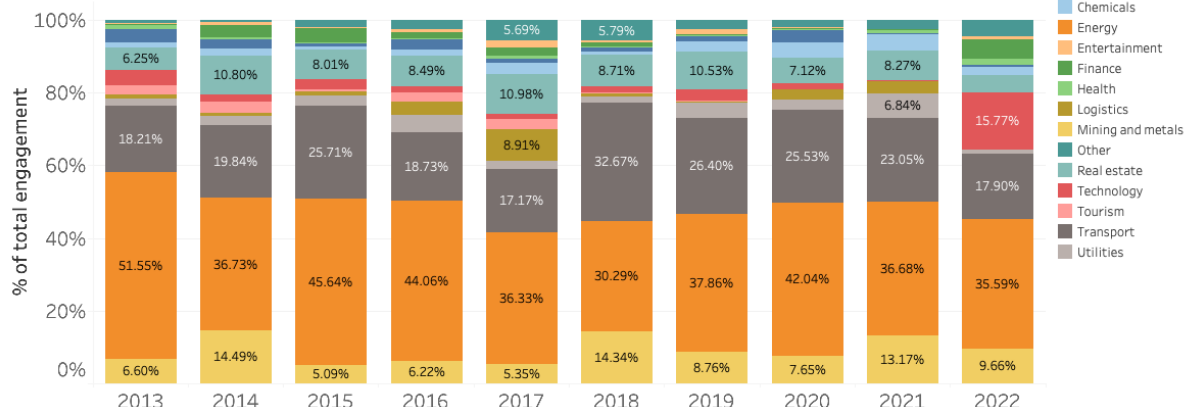


Growth/decline of BRI engagement in different sectors 2013 - 2022

	2016	2017	2018	2019	2020	2021	2022
Agriculture	121%	-57%	5%	23%	31%	-83%	3%
Chemicals	51%	124%	-72%	192%	-11%	17%	-53%
Energy	-25%	-3%	-11%	9%	-34%	-4%	-4%
Entertainment	710%	173%	-71%	100%	-88%	-100%	
Finance	-69%	64%	-57%	-79%	-22%	-44%	3,450%
Health	-13%	345%	-47%	-45%	-50%	362%	112%
Logistics	114%	193%	-89%	-80%	630%	35%	-100%
Real estate	-17%	51%	-15%	5%	-60%	28%	-42%
Technology	-58%	15%	25%	41%	-63%	-88%	7,536%
Transport	-43%	7%	103%	-30%	-43%	-1%	-23%
Tourism	451%	13%	-89%	26%	-100%		
Utilities	41%	-44%	-31%	150%	-61%	169%	-84%
Other	-2%	156%	9%	-59%	-55%	36%	81%
Mining and metals	-5%	1%	185%	-47%	-48%	89%	-27%

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Sector share of BRI engagement 2013-2022

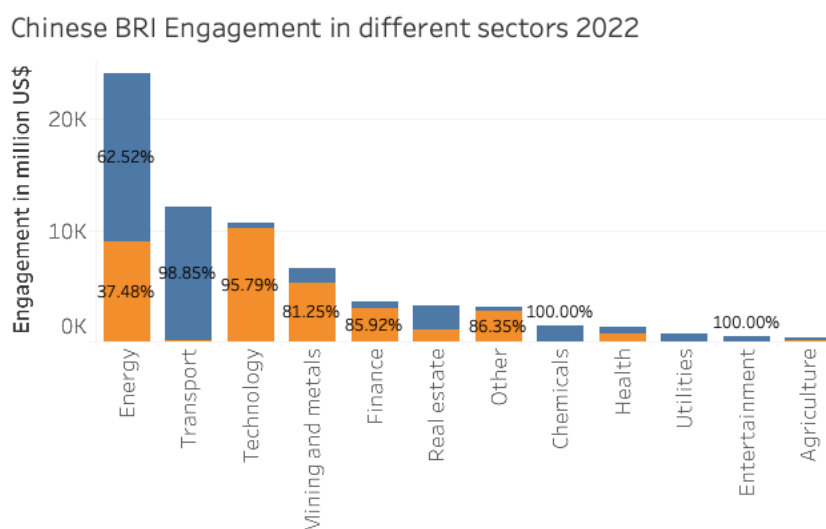
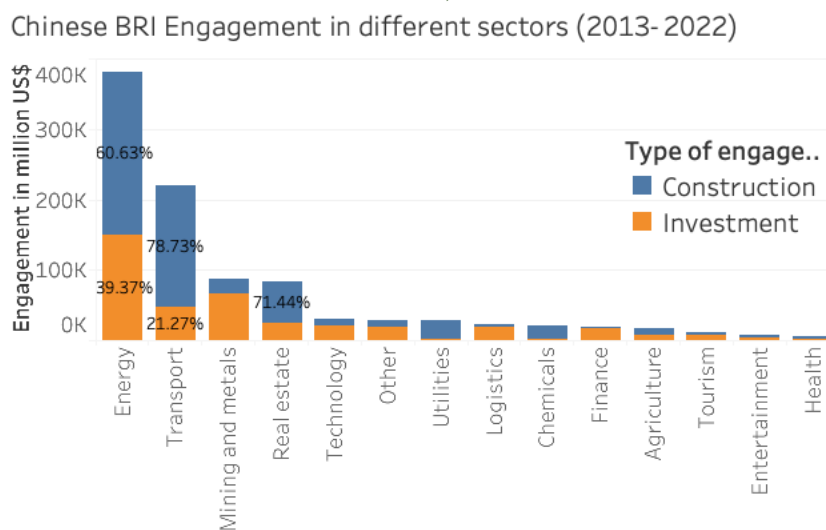


While the metals and mining sector slowed, it was nevertheless the fourth largest sector with about USD6.7 in engagement. **Metals and mining remains of strategic importance** particularly for minerals related to the green transition (e.g., lithium) and batteries for electric vehicles, particularly in African and Latin American countries for mining and Europe for batteries.

investment and construction, data show that engagement through investment increased significantly as a share in 2022 from an average of about 25% in the years 2013-2022 to about 46% in 2022. Metals and mining, meanwhile, constitute the second largest investment sector for Chinese engagement in the countries of the BRI (see Figure 8).

When distinguishing Chinese BRI engagement in different sectors between

Figure 8: Chinese BRI engagement in different sectors through construction and investment (2013-2022)



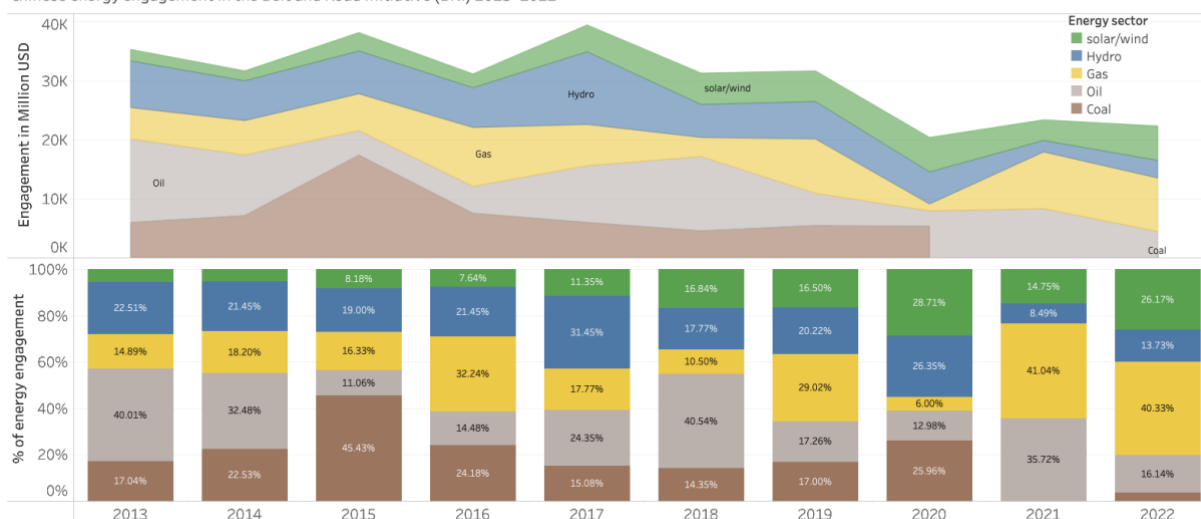
### Energy-related engagement in the BRI at their lowest level

Chinese engagement related to the energy sector constitutes the largest share of China’s BRI engagement. In 2022, total engagement in the energy sector reached USD24.1 billion – which is the lowest level of energy engagement since the launch of the BRI in 2013. This compares, for example, to USD25.3 billion engagement in 2021 and USD26.2 billion in 2020.

In 2022, most energy engagement supported gas-related projects (40%), followed by solar and wind (26%) and oil (16%). Coal (as described in the next section) saw renewed engagement through coal mining in Indonesia by PowerChina.

Figure 9: Chinese total energy engagement in the Belt and Road Initiative (BRI) 2013-2022

Chinese energy engagement in the Belt and Road Initiative (BRI) 2013- 2022



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## Coal

**1.5 GW of new coal-fired power plants announced in 2022, plus financial and diplomatic support for coal plants in Pakistan and engagement in coal mining in Indonesia.**

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.

An unfortunate case for green development is the recent approval of 300 MW of coal fired power in Gwadar, Pakistan in January 2023.<sup>6</sup> 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>7</sup> - including the design that requires import of coal (rather than using possibly more affordable domestic coal in Pakistan).<sup>8</sup>

Another issue are captive power plants: in February 2022, China Energy Engineering Corporation won the bid for a 4 x 380-megawatt thermal power plant on Obi Island, Indonesia. The project owner is PT Halmahera Jaya Feronikel, a joint venture between Chinese Lygend and Indonesia's Harita Group, which is a captive power plant in an industrial park in Indonesia.<sup>9</sup>

Furthermore, Power Construction Corp. (PowerChina) engaged in a coal mining project in Central Kalimantan Province, Indonesia, with the purpose to sell 30 million tons of coal.<sup>10</sup>

## Oil and gas

**Oil and gas construction engagement reached USD6.8 billion (51% of Chinese overseas energy construction) and USD4.8 billion in investments (60% of Chinese energy investments)**

Gas-related investments reached their second highest level in the history of the BRI at USD4.8 billion equal to 60% of

<sup>6</sup> <https://www.thenews.com.pk/print/1027065-300mw-coal-power-plant-okayed-for-gwadar>

<sup>7</sup> <https://www.brecorder.com/news/40221115>

<sup>8</sup> <https://www.brecorder.com/news/40216688>

<sup>9</sup> <https://thepeoplesmap.net/globalchinapulse/chinas-overseas-energy-investments-after-the-no-coal-pledge-an-assessment/>

<sup>10</sup> <https://www.seetao.com/details/189857.html>, [http://www.powerchina.cn/art/2022/11/8/art\\_7449\\_1550217.html](http://www.powerchina.cn/art/2022/11/8/art_7449_1550217.html)



China's energy investments (up from 170 million in 2021), driven by a USD4.6 billion investment in Aramco Gas Pipelines Company in Saudi Arabia. Gas related construction contracts reached USD6.8 billion in 2022 (down from USD9.4 billion in 2021) with projects in Argentina (a USD1.9 billion contract for a gas pipeline), Iraq, Thailand, Algeria, and Kazakhstan.

China's engagement in oil-related projects in the BRI constituted about 17% of total Chinese energy engagement in the BRI, amounting to about USD3.6 billion in 2022 (down from USD8.3 billion in 2021).

Outside the BRI, China's CNOOC engaged in a USD1.9 billion production sharing deal Petrobras to explore Brazil's Buzlos field.<sup>11</sup>

## Green energy/hydropower

Chinese **green energy and hydropower investment increased to USD2.3 billion in 2022** from USD1.3 billion in 2021.

China's total engagement in green energy (solar and wind) and hydropower amounted to about USD5.8 billion in 2022. This compares to USD6 billion in 2021 (see Figure 9).

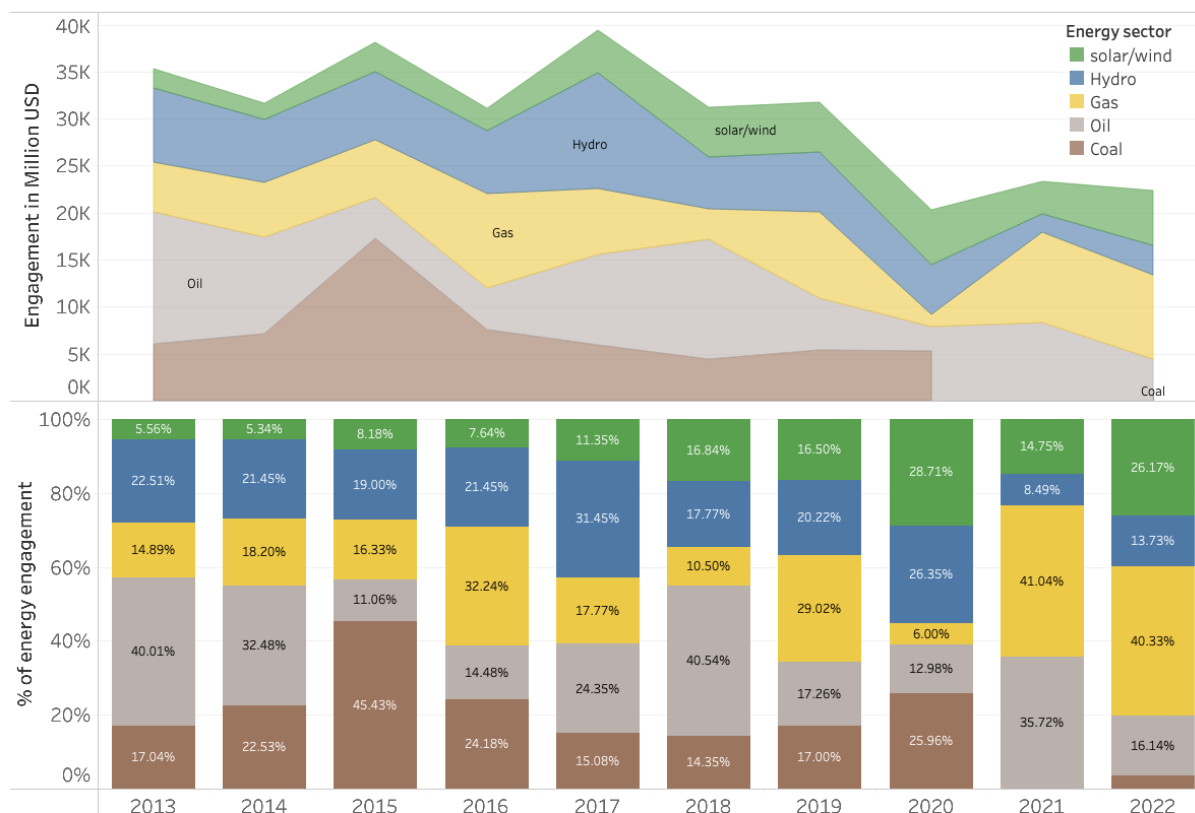
Construction projects related to green energy (including hydropower) increased from USD1.4 billion in 2021 to USD3.5 billion in 2022.

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<sup>11</sup> <https://www.reuters.com/business/energy/chinas-cnooc-pays-petrobras-19-blbn-production-sharing-deal-brazils-buzios-field-2022-11-24/>

Figure 10: Chinese energy engagement through investment and construction in the BRI 2013-2022 by subsector

Chinese energy engagement in the Belt and Road Initiative (BRI) 2013- H1 2022



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### Energy engagement in different countries

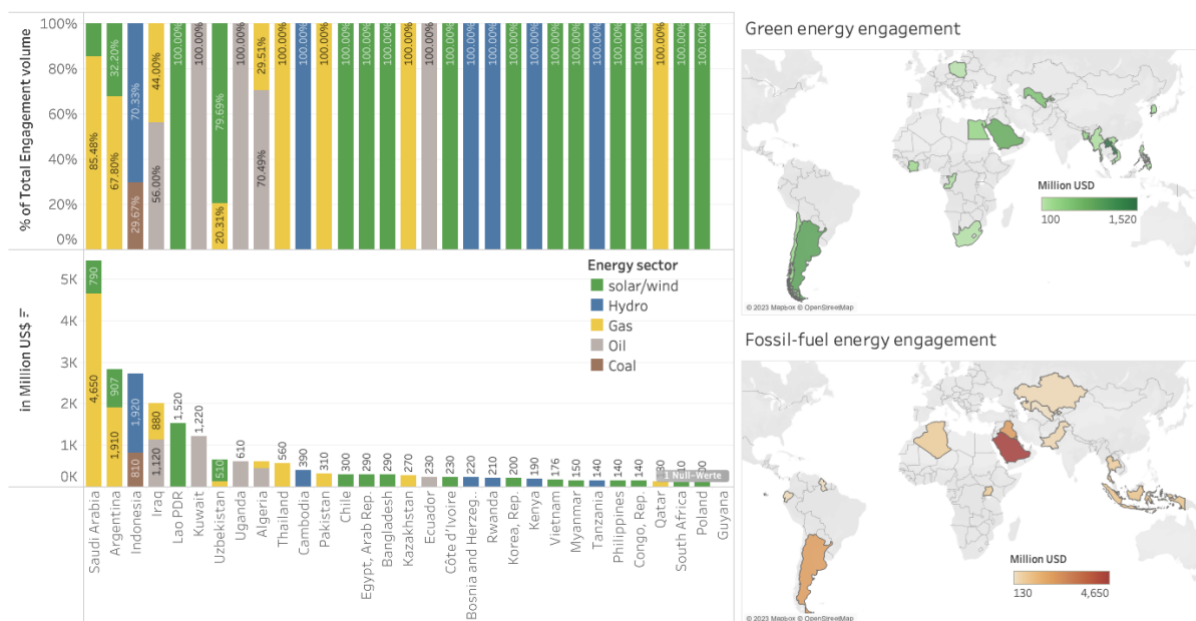
Analyzing Chinese energy engagement in different BRI countries, we find that Saudi Arabia was the country that received the most energy engagement in 2022 (USD5.4 billion), followed by Argentina.

With the strong engagement in Saudi Arabia, including cooperation on solar projects, such as a USD210 million project with Jinko Solar, Saudi Arabia moved up from 6<sup>th</sup> place of cumulative BRI energy

engagement in 2021 to 3<sup>rd</sup> place in 2022 (the most important partner remain Pakistan, followed by the Russian Federation).

An interesting case is Lao PDR, which saw strong engagement in green energy through a cooperation between Thai energy company Bangchak Corporation (BCPG) and PowerChina international to build a USD1.5 billion wind farm in Laos (see Figure 11).

Figure 11: Chinese energy engagement in the Belt and Road Initiative (BRI) by country in 2021  
Chinese energy engagement in the Belt and Road Initiative (BRI) 2022 by country



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## Transport engagement in the Belt and Road Initiative

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 12).

**Aviation:** Three aviation-related construction project were announced in 2022, including in Tanzania worth about USD190 million.

**Rail:** Total rail engagement was worth USD7.3 billion (all through construction contracts). Most of China’s rail engagement in 2022 could again be found in East Asia, including the continuation of the high-speed rail projects connecting

China through Thailand and Malaysia to Singapore (Kunming-Singapore rail). The 422 km long railway connecting China and Laos had begun operating in December 2021<sup>12</sup>. In January, the Philippines’ Department of Transportation (DOTr) awarded a \$2.8bn contract to a Chinese consortium to build the first phase of the 565km Bicol rail scheme on the country’s main island of Luzon.<sup>13</sup> No new rail engagement had been announced on the African continent, while non-Chinese contractors were able to secure large deals, such as the USD8.7 billion rail project in Egypt won by Siemens in May 2022.<sup>14</sup>

**Road-transport:** China continues to engage in road construction projects

<sup>12</sup> <https://asia.nikkei.com/Politics/International-relations/China-Laos-railway-begins-with-limited-service2>

<sup>13</sup> <https://www.globalconstructionreview.com/chinese-team-awarded-2-8bn-first-phase-of-philippines-bicol-rail-scheme/>

<sup>14</sup> <https://railynews.com/2022/05/siemens-misirda-87-milyar-dolarlik-yuksekk-hizli-demiryolu-insa-edecek/>



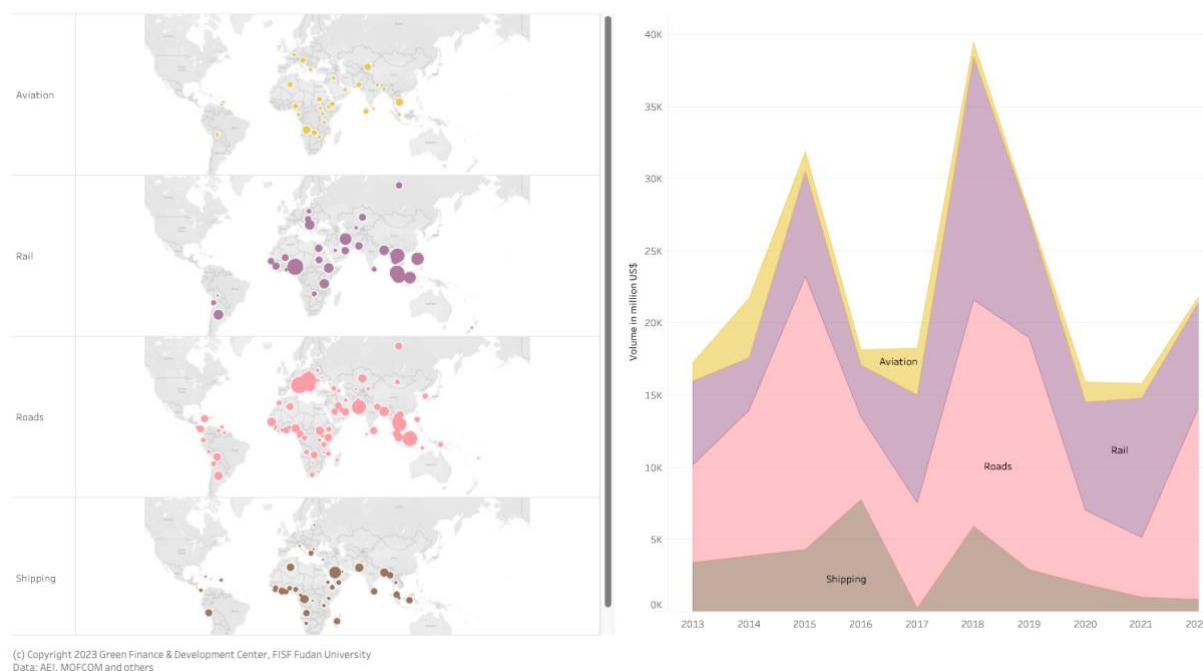
across many countries. Construction volumes reached USD3.4 billion in 2022 (up from USD2.5 billion in 2021). Some road engagement is now through investments for toll roads or road annuity projects. However, some projects that had been announced several years back are still not constructed, such as a USD70 million road annuity project with a length

of 66 kilometers in Kenya announced in 2014.

**Ports:** No port-related projects investments were announced in 2022, but Chinese corporations are supporting in the construction of various shipping-related projects particularly in Africa.

Figure 12: Chinese engagement in BRI transport infrastructure 2013-2022

Chinese transport-related engagement 2013-2022



### Major players in BRI investments

**Among the major players for BRI investments in 2022 were – contrary to most years before – not exclusively Chinese SOEs, but also private enterprises** (see Table 1).

The Chinese companies most prominently featured in construction projects in the BRI in 2022 was Power Construction

Corporation (PowerChina), followed by China Railway Engineering and China Energy Engineering.

For investment projects, battery producer CATL was leading BRI engagement, followed by various funds (e.g., Silk Road Fund) represented through the State Administration of Foreign Exchange).

Table 1: Major Players in BRI investments in 2021 (parent companies)

## Largest Chinese players (parent company) in the Belt and Road Initiative (BRI) in 2022

Investors		Construction	
	% of total		% of total
Contemporary Amperex Tech (CATL)	29.1%	Power Construction Corp. (PowerChina)	22.3%
State Administration of Foreign Exchange (SAFE), China M..	17.8%	China Railway Engineering	10.3%
State Administration of Foreign Exchange (SAFE)	11.8%	China Energy Engineering	9.8%
Alibaba	7.4%	China Communications Construction	9.4%
Power Construction Corp. (PowerChina)	4.8%	State Construction Engineering	9.3%
State Power Investment Corporation	3.8%	China Railway Construction	8.5%
Jiangxi Ganfeng	3.7%	China Petroleum and Chemical (Sinopec)	6.5%
Nine Dragons	3.6%	China National Chemical Engineering	5.0%
Tsingshan	2.9%	China National Petroleum Corp. (CNPC)	4.7%
Zijin Mining	2.8%	China National Machinery Industry (Sinomach)	4.6%
Shandong Bright Ruby	2.8%	China National Building Material	2.8%
Minmetals	2.6%	Southern Power Grid	2.0%
Sinosteel	2.6%	China Petroleum and Chemical (Sinopec), China General Te..	1.6%
United Energy	2.3%	Minmetals	1.6%
Zhejiang Huayou Cobalt	1.9%	Sinosteel	1.6%

## China's BRI investments in a global comparison

After foreign direct investment (FDI) rebound to pre-pandemic levels in 2021<sup>15</sup> and saw further growth in the first quarter of 2022, a multitude of crises on the global stage (e.g., debt pressure, invasion of Ukraine) led to a slower growth of FDI in the following quarters leading to a 6% decline of the value of M&A and stagnation in the number of international project finance deals.<sup>16</sup> According to UNCTAD, project finance and mergers and acquisitions (M&A) “were most affected by deteriorating financing conditions, rising interest rates, and growing uncertainty in financial markets”. International project finance values shrunk by 30% in 2022.

Yet, effects of lower FDI were most prevalent in developed countries, while ASEAN economies saw a 21% increase in

greenfield project announcements. Similarly, Brazil saw an increase of 30% of greenfield announcements. Another winner was India, which attracted as many R&D projects as the US, UK, and China combined. It also outpaced China to become the largest destination *and* source of Greenfield FDI in Asia and the Pacific in 2022. India received USD60 billion in inward greenfield FDI and invested USD35 billion in other countries.<sup>17</sup>

Regarding greenfield project numbers, developing countries saw an increase by 26%, particularly countries in Africa, while international project finance deals were down by 6%. Similarly, the value of cross-border M&A sales were down by 6% in developing countries, particularly in

<sup>15</sup> <https://unctad.org/press-material/global-foreign-direct-investment-recovered-pre-pandemic-levels-2021-uncertainty>

<sup>16</sup> [https://unctad.org/system/files/official-document/diaeiainf2023d1\\_en.pdf](https://unctad.org/system/files/official-document/diaeiainf2023d1_en.pdf)

<sup>17</sup> <https://www.unescap.org/kp/2022/foreign-direct-investment-trends-and-outlook-asia-and-pacific-20222023>

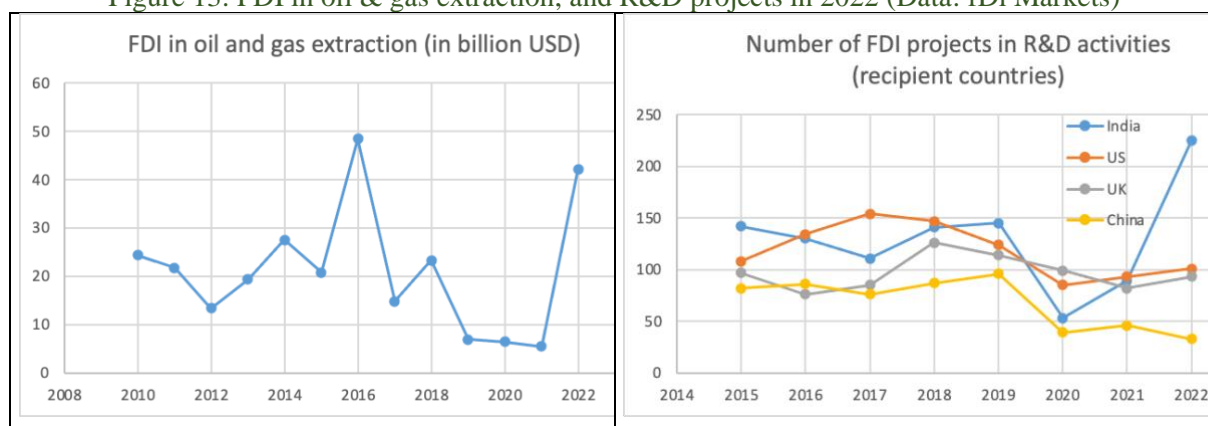
Central Asia, South-East Asia and South Asia (see Figure 13).

A particular focus of global FDI in 2022 was in semiconductors (e.g., a USD28 billion investment by Taiwan Semiconductor Manufacturing (TSMC) in the United States) and in renewable energy (e.g., a USD13 billion investment by India’s ACME Group in Egypt). Europe was the main source and destination of

FDI for wind energy projects, with USD55 billion pledged by Western European wind developers, of which USD23 billion went to places like North America, Latin America, Africa, and Asia Pacific.

Another focus of FDI, however, was in oil & gas extraction, which by August 2022 had reached USD42.15 billion – the same as the cumulative FDI between 2018 and 2021.

Figure 13: FDI in oil & gas extraction, and R&D projects in 2022 (Data: fDi Markets)



## Outlook for 2023 foreign direct investments

According to fDi, the outlook for FDI in 2023 is “challenging”, with potential “regional breakaways” that have great opportunities for FDI. Reasons for challenges include high inflation and interest rates (depressing financing opportunities in projects and M&A), as well as geopolitical tensions and soaring protectionism.

However, some optimism has returned with inflation levels sinking and overall economic activity showing stronger resilience than expected.<sup>18</sup>

Countries that are expected to perform well and attract FDI include those with

relevant natural resources to finance the green transition (e.g., lithium), as well as those with relevant markets or technical capacity to warrant a supply chain localization (e.g., for semiconductor manufacturing). African countries would perform very differently among each other, depending on their governance, debt levels, and opportunities (e.g., as a market or as a source for commodities). Developing Asian countries are expected to grow by 4.9% in 2023<sup>19</sup>, possibly also due to shifts from investments into China into neighboring economies, particularly

<sup>18</sup> <https://www.reuters.com/article/idUSL8N3452C8>

<sup>19</sup> <https://www.fdiintelligence.com/content/feature/the-fdi-outlook-2023-81870>



from those companies that depend on Western markets.

With much needed green energy transition and political willingness and direction, also FDI in renewable energies should further accelerate.<sup>20</sup>

## Outlook for Belt and Road Initiative (BRI) Finance and Investments

Chinese finance and investments into the Belt and Road Initiative countries in 2022 have remained steady.

For 2023, with China's COVID-related lockdowns fully lifted, a broader recovery of BRI investments and construction contracts seems possible. On the one hand, there is clear need for investments to boost growth in the post-COVID19 world supported by global financial institutions, including developing finance institutions (such as the World Bank, Asian Development Bank, AIIB), from which Chinese contractors can benefit. On the other hand, with travel restrictions lifted, Chinese developers are able to travel freely to negotiate, plan, and implement new projects.

We do not expect Chinese BRI engagement to reach levels as in 2018-2019. This is also a recognition of the Chinese Ministry of Commerce (MOFCOM), which put a break on fast overseas expansion in its 14<sup>th</sup> Five-Year Plan (FYP)<sup>21</sup> for 2021 to 2025: it plans for China to invest USD550 billion (that includes non-BRI countries), down 25% from USD740 billion in the 2016-2020

period. Also, Chinese contracting volume is planned to decrease from USD800 billion in the previous FYP to USD700 billion in this FYP. **However, with relatively low levels of BRI engagement in 2021 and 2022, some acceleration should be possible.**

In line with our previous predictions, this does not necessarily mean that the deal number is decreasing. As we have been seeing in 2021 and early 2022, **many smaller projects have been financed** even in more difficult economic circumstances and often provide both the means to boost sustainable economic development, provide employment and are better able to protect the environment.

At the same time, we see two types of large projects to continue: strategic engagements (such as in strategic transport infrastructure in the region), and resource-backed deals (such as in mining, oil, gas).

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

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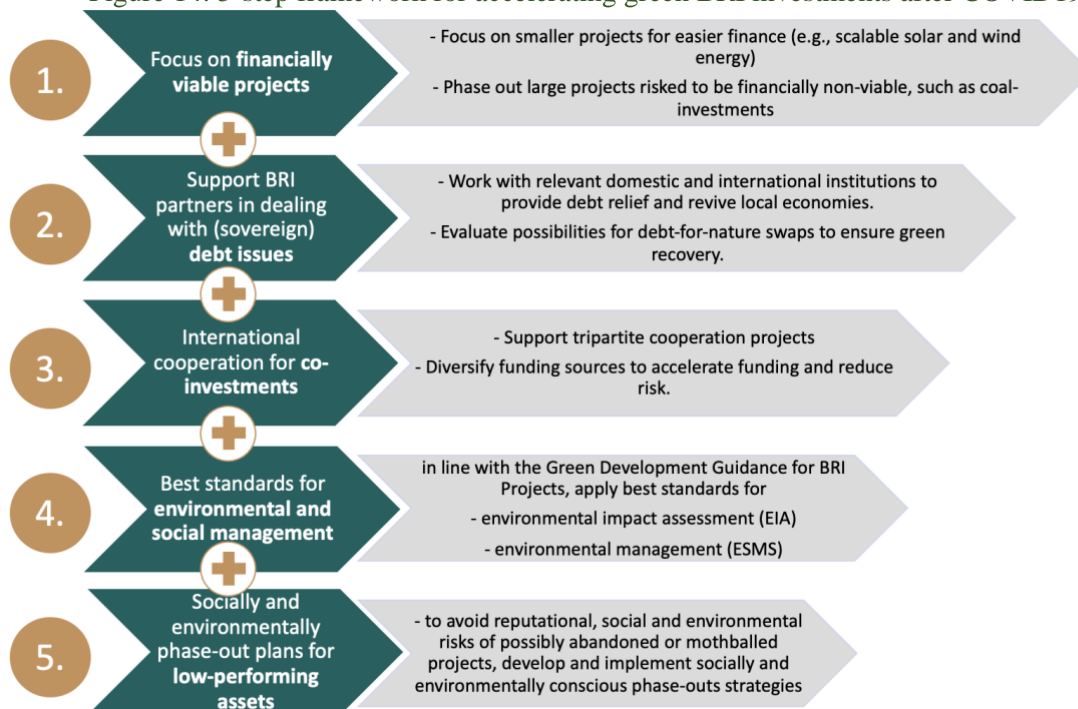
<sup>20</sup> <https://www.investmentmonitor.ai/features/fdi-forecasts-and-trends-to-watch-in-2023/>

<sup>21</sup>

<http://images.mofcom.gov.cn/zhs/202107/2021070811>

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Figure 14: 5-step framework for accelerating green BRI investments after COVID19



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### 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.<sup>22</sup>

### **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>23</sup>. Also, Chinese financial institutions could benefit to de-risk project finance by broaden their international cooperation. A new report “China Third-Party Market Cooperation for Infrastructure Finance Financing Mechanism Handbook was released in September 2021 to accelerate tri-partite project finance.<sup>24</sup>

In addition, with European Union (EU) launching its “Global Gateway” and the US pushing its “Build Back Better World” (B3W) initiative, 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 (MOFCOM), together with the Ministry of Ecology and Environment, issued the Guidelines for Greening Overseas Investment and Cooperation<sup>25</sup> and in January 2022, the Guidelines for Ecological Environmental Protection of Foreign Investment Cooperation and Construction Projects<sup>26</sup>. Within these Guideline, 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 formalization 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 guidances calls for Chinese overseas investors to apply independent environmental impact assessments (EIA) and strict

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<sup>22</sup> <https://www.f4b-initiative.net/news/new-%E2%80%9Cnature-performance-bond%E2%80%9D-to-tackle-twin-sovereign-debt-and-biodiversity-crises>

<sup>23</sup> <https://www.ebrd.com/news/2020/ebd-aiib-icbc-and-gcf-provide-us-953-million-for-wind-farm-in-kazakhstan.html>

<sup>24</sup> <https://greenfdc.org/china-third-party-market-cooperation-for-infrastructure-projects-financing-mechanism-handbook/>

<sup>25</sup>

<http://images.mofcom.gov.cn/hzs/202107/20210716144040753.pdf>

<sup>26</sup>

[http://www.mee.gov.cn/xxgk2018/xxgk/xxgk05/202201/t20220110\\_966571.html](http://www.mee.gov.cn/xxgk2018/xxgk/xxgk05/202201/t20220110_966571.html)



environmental and social risk management (ESMS) to ensure projects and investments are minimizing environmental harm and maximizing 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 Belt and Road Initiative 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% of announced coal fired power plants have been mothballed.

In order 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: About the Belt and Road Initiative (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 Belt and Road Initiative is anchored in the Chinese constitution.

Goals of the Belt and Road Initiative – 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" Belt and Road Initiative have 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 civilization", "green development concepts", "principles of resource efficiency and environmental friendliness" within the five goals of the Belt and Road Initiative.

During the 2019 Belt and Road Forum, green and sustainable development of the Belt and Road Initiative 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 urbanization
- green standards

In 2020, the MEE and several relevant ministries backed the Green Development Guidance for BRI Projects Baseline Study published by the Belt and Road Initiative International Green Development Coalition (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 Belt and Road Initiative [here](#).



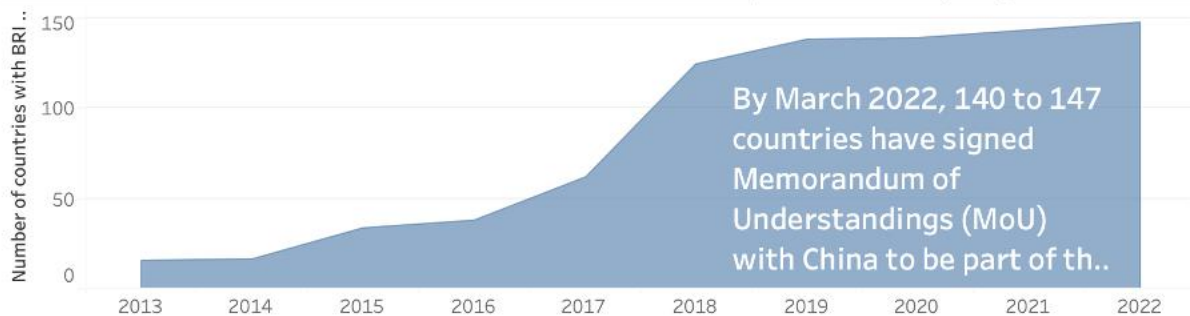
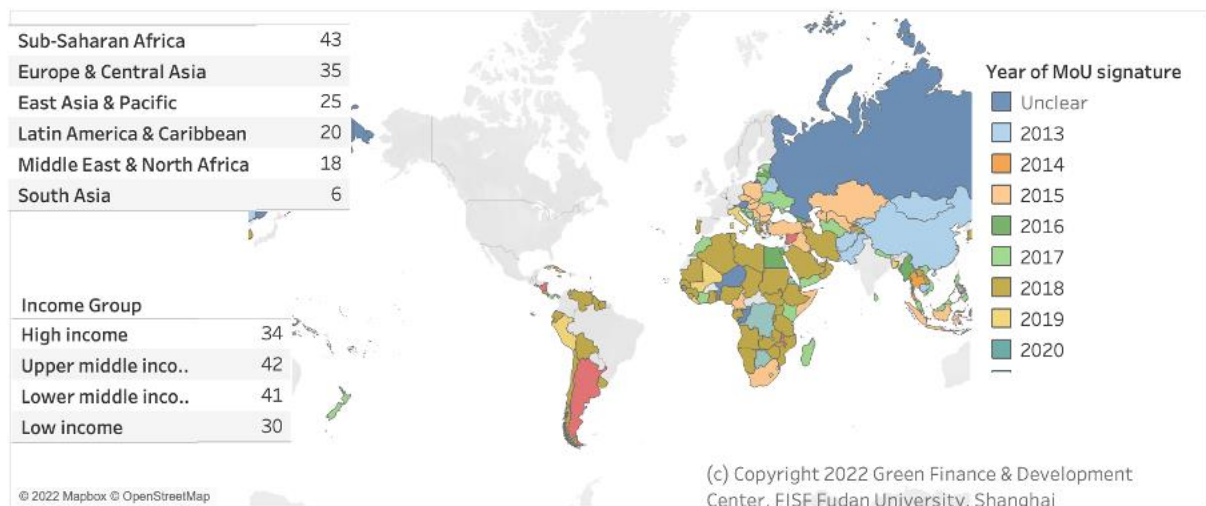
## Countries of the Belt and Road Initiative

According to official information, in June 2022, 147 had signed cooperation agreements for the BRI. For countries and organizations to “join” the BRI, China and the respective country or organization sign a Memorandum of Understanding (MoU).

For 7 countries listed in official Chinese media (yidaiyilu.gov.cn), we could not confirm a signature of an MoU for bilateral cooperation under the Belt and Road Initiative 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 Belt and Road Initiative (BRI) [here](#).

### Countries of the Belt and Road Initiative





## About the author

**Dr. Christoph NEDOPIL** is Associate Professor of Practice in Economics and Director of the Green Finance & Development Center at the Fanhai International School of Finance (FISF), Fudan University. He is also a Senior Research Fellow at the Central University of Finance and Economics (CUFE) in Beijing, China, and a Visiting Faculty at Singapore Management University (SMU).

Christoph regularly provides expertise to governments, financial institutions, enterprises and civil society to accelerate the application of sustainable finance. He works with the China Council for International Cooperation on Environment and Development (CCICED), the Chinese Ministry of Commerce, as well as various private and multilateral finance institutions (e.g., ADB, IFC, UNESCAP) and international governments.

He is the lead author of the UNDP SDG Finance Taxonomy, the Green Development Guidance Baseline Study of the BRI Green Development Coalition under the Chinese Ministry of Ecology and Environment, and has authored four books, dozens of articles, and research reports. Christoph is serving as board director and supports various companies in scaling sustainability in businesses and finance.

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 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.

To drive green finance development, GFDC works in four inter-related labs:

1. Green BRI Lab
2. ESG Lab
3. Green Innovation Lab
4. Biodiversity Finance Lab

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



**Contact us for more detailed analysis on green and sustainable finance, the Belt and Road Initiative (BRI) and sustainable development.**

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