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Author

Larsen, Mathias Lund, Voituriez, Tancrede, Nedopil, Christoph

Published

2023

Journal Title

Journal of International Development

Version

Version of Record (VoR)

DOI

10.1002/jid.3778

Received: 7 April 2022 | Revised: 30 January 2023 | Accepted: 6 March 2023

DOI: 10.1002/jid.3778

RESEARCH ARTICLE

JOURNAL OF INTERNATIONAL DEVELOPMENT WILEY

Chinese overseas development funds: An assessment of their sustainability approaches

Mathias Lund Larsen[1,2] | Tancrède Voituriez[3,4] | Christoph Nedopil[5]

[1]Department of Organization, Copenhagen Business School, Copenhagen, Denmark

[2]Sino-Danish Center for Education and Research (SDC), University of Chinese Academy of Sciences, Beijing, People's Republic of China

[3]Agricultural Research Centre for International Development (CIRAD), Paris, France

[4]Institute for Sustainable Development and International Relations (IDDRI) Sciences Po, Paris, France

[5]Fanhai International School of Finance (FISF), Fudan University, Shanghai, People's Republic of China

Correspondence
Mathias Lund Larsen, Department of Organization, Copenhagen Business School, Kilevej 14A, 2000 Frederiksberg, Copenhagen, Denmark.
Email: mll.ioa@cbs.dk

Abstract

A growing number of emerging economies receive significant parts of their overseas finance and investment from Chinese state-owned or state-linked institutions. While academic research has focused on how Chinese policy and state-owned banks approach sustainable development issues, Chinese sovereign-backed overseas development funds are a critical yet overlooked component. This paper addresses this knowledge gap by providing the first comprehensive overview of such funds regarding their scope, activities and capitalization, as well as by assessing the funds' policy approach to sustainability. Qualitative and quantitative data are collected from databases, funds' websites, newspaper articles and public statements in both Chinese and English to identify common features between funds and to analyse their sustainability policies in comparison with global best practices. The paper specifically analyses the funds' sustainability *approaches* rather than *impact* due to a lack of comprehensive data on the funds' investments. First, the paper finds that given their number, announced capital size of US$213 billion, geographic scope and sectorial focus, including on high-emissions projects such as mining, energy and heavy industry, the funds are influential players in global development finance. Second, regarding the funds' approaches to sustainability, the paper finds that the funds lack transparency about their policies and practices, which is a key component of sustainable fund management practices. Third, based on an in-depth analysis of available information, we identify a lack of sustainability in the funds' mandates, an absence of safeguards, limited project pipeline disclosure and no sustainability performance assessment. Lastly, the paper provides four policy recommendations on how to improve the funds' sustainability approaches based on the unique way they are governed by different parts of the Chinese state apparatus.

KEYWORDS
China, development funds, overseas investment, sustainable finance

1 | INTRODUCTION

Based on the 'reform and opening up' policy of 1978, the 'going out' policy in 1999 and the 'Belt and Road Initiative' (BRI) in 2013, China's capital flows towards the rest of the world have increased exponentially over the last four decades. Chinese overseas engagement through investment and financing averaged US$70 billion over the last 5 years (Scissors, 2021) through state-owned enterprises, state-owned financial institutions, policy banks and an increasing number of development funds. Through this, China has become the major financing partner for many emerging countries. In consequence, the role of sustainability approaches of Chinese financial institutions has become a determining factor in many countries' sustainable development trajectories.

A number of problems related to the sustainability implications of Chinese policies on outward financing have been identified in the academic literature. Among the most salient being that the majority of Chinese overseas energy investments have been in fossil fuels (Larsen & Oehler, 2022; Li, Gallagher, & Mauzerall, 2020; Nedopil, 2022b), risking long-term climate costs (Ma & Zadek, 2019). Another issue is that Chinese investors and developers applied a 'host country principle' on environmental standards, where host country environmental standards are often insufficient in ensuring environmental protection (Voituriez et al., 2019). This is in contrast to, for example, the Equator Principles Financial Institutions that have set investment policies to apply best practice environmental standards when investing in countries with weaker environmental institutions (Equator Principles Association & International Finance Corporation, 2020). It is also in contrast to Chinese promises to green overseas cooperation, such as through the Green Overseas Investment Guidelines issued in July 2021 (Nedopil, 2022a; Nedopil et al., 2021), but also through previous guidelines on greening China's overseas finance (MOFCOM, 2013).

In recent years, analysis of the sustainability of Chinese overseas finance and investment has developed into a mature academic area. Given the significant data limitations on Chinese overseas finance, most of this scholarship focuses on collecting and analyzing data on Chinese policy banks and Chinese commercial banks (Chen et al., 2020; Kong & Gallagher, 2021b; Monasterolo et al., 2018; Zhou et al., 2019). However, an important provider of finance, Chinese sovereign-backed overseas development funds (henceforth, 'the funds' or 'the Chinese development funds'), have so far been overlooked. For example, the China Overseas Finance Inventory (COFI), which is the most comprehensive database to date covering Chinese equity and debt investments by Chinese corporations and banks in the power-generation sector across BRI countries (Zhou et al., 2022), acknowledges that the source data are incomplete in certain areas, such as projects financed by equity investment funds (id:7). This type of financing makes up a significant part of Chinese development funds' activities. Therefore, rather than a theoretical deliberation, the central contribution of this paper builds on this academic tradition by providing data and analysis of Chinese development funds. This paper specifically approaches the role of Chinese development funds and their possible role in addressing sustainable development. Development funds are understood as primarily funded through Chinese public money, as investing the majority of their money overseas and providing funding for 'development' where private money would otherwise be difficult to mobilize. Furthermore, sustainability in the paper is understood as based on United Nations 2030 agenda and the Sustainable Development Goals, while many cases focus on environmental and climate aspects.

As previous research has not studied these funds, the initial task of the paper is to identify these funds, their capital endowment, investors, investment scope and regional coverage. The paper finds that these funds, with a capital endowment of US$213 billion, are arguably cumulatively large enough to warrant targeted research regarding their possible sustainability impact. The main research question of the paper concerns how these funds' sustainability policies are aligned with sustainable development. As such, to be clear, the intention is to assess their sustainability approaches and not their impacts. As no comprehensive project-level data exists on the funds' investment portfolio, the paper will not aim to make an accurate assessment of the funds' sustainability impacts. Rather, the intention is to gauge these funds' role and policy approach to sustainability, which is possible based on a variety of publicly available resources. The paper accordingly analyses these funds' sustainability policies and then compares them to international best practices, similar to the study by Narain et al. (2020) on biodiversity safeguards by Chinese financial institutions investing in the countries of BRI. The main framework for comparison is based on the components of the International Finance Corporation (IFC) Environmental and Social Management System (ESMS) for financial institutions (IFC, 2021), which cover sustainability practice all the way from policies to safeguards, monitoring and reporting.

Addressing the research question, the paper adds to the emerging literature on the policies shaping the sustainability of Chinese overseas finance. Empirical studies on China's role in global sustainable development can be categorized into three focus areas as concerned with either the scale, impact or policies (Shen, 2020). This paper contributes to all three areas by estimating the scale of the funds, gauging their approach to sustainability and showing how Chinese policies shape the funds. Key strains in the empirical literature on the scale and impact of Chinese investment include Li et al. (2020) with a statistical overview of energy investment, Kong and Gallagher (2021a, 2021b) on Chinese development of coal plants and renewable energy overseas, and Cabré et al. (2018) on the current scale and potential scope of Chinese overseas investment. On the other hand, the main literature on the governance of Chinese overseas investment includes Kong and Gallagher (2017) on the role of Chinese policy banks, Gallagher and Qi (2018, 2021) on the Chinese regulatory environment for overseas investment, Shen and Power (2017) highlighting the decentralized organization of Chinese investment in Africa, and Kaplan (2016, 2018) on the political economy of Chinese patient capital and finance in Latin America. This is further related to the broader topic of China's role in global climate governance, such as on bilateral finance (Ha et al., 2016), through the G20 (Ren, 2017), or Chinese-initiated multilateral development banks (MDBs) (Wang, 2017).

Understanding how China governs its funds is an important empirical and analytical component in shedding light on these broader global sustainability policy issues. To study this question, the paper collects qualitative and quantitative data from three main types of sources: First, the paper utilizes the funds' websites, newspaper articles and public statements, in both Chinese and English, to access and analyse funds' self-reporting as well as external reporting on sustainability frameworks, policies and event-based details. Second, the paper uses analysis and data from research organizations such as the Global Development Policy Center at Boston University (BU, 2021), the China-Africa Research Initiative of the John Hopkins School of Advanced International Studies (SAIS, 2021), and the China Global Investment Tracker of the American Enterprise Institute (AEI, 2021). These three initiatives track Chinese project investment via internet search engines, open-source verification and interviews. In addition, two other databases were screened for supplementary detail: the China Overseas Finance Inventory (COFI) database (Zhou et al., 2019) and AidData's Global Chinese Development Finance Dataset (Custer et al., 2021). Third, the paper also draws directly from data providers such as Thomson ONE, Bloomberg New Energy Finance and Dealogic. Even when combining these sources, it is not possible for the paper or for other researchers to track all the projects to gain a complete overview of the funds' entire portfolio (H. Li, 2020; Zhou & Li, 2019). As such, the paper compiles and combines these data to get an overview of the funds across key variables, providing a representative idea of the main project types and a basis to compare the funds with best practice in the funds and development finance industry.

In this way, the paper makes three contributions. First, it provides the first overview of Chinese overseas development funds, filling a gap in our understanding of Chinese overseas financing. Second, it provides a review of the level of transparency in the funds' sustainability approaches. Third, it provides an assessment of Chinese sustainability-related policies themselves governing the funds, contributing to the field of China's role in global sustainability governance based on a comparative approach. Fourth, it provides tangible policy recommendations, showing both researchers and policymakers how policies can be changed by which parts of the Chinese government in what ways.

The paper is structured in the following way: It starts by providing an overview of the funds, including their key variables such as size, sectors and geographies. Next, the paper provides an overview of funds' sustainability policies concerning mandate, safeguards, investment portfolio and performance disclosure. To supplement the data overview, the paper also provides brief case studies on three chosen funds to exemplify policy trends seen across funds (Section 3, second part). Fourth, the paper identifies best practices on sustainability approaches from multilateral development banks (MDBs) (Section 4). Finally, the paper lays out policy recommendations on how to improve the sustainability approaches of the funds (Section 5) and ends with concluding remarks (Section 6).

2 | OVERVIEW OF CHINESE SOVEREIGN-BACKED OVERSEAS DEVELOPMENT FUNDS

The paper defines Chinese funds as investment facilities matching all the three following criteria: First, the capital is primarily provided by the government rather than private investors, either directly from the Ministry of Finance or indirectly via public institutions like China's policy banks. Second, the majority of the capital is allocated overseas while allowing for a minority proportion to be invested in China or in cross-border projects such as pipelines. Third, the goal of these funds is officially to provide 'development' funding to finance projects that would not receive commercial finance in emerging economies. From the broad scope of sustainable development, our definition does not limit the funds to specific sectors of 'development'. These criteria exclude, for example, the US-China Green Fund as it is privately capitalized, the National Green Development Fund as its focus is domestic, or the US$1 trillion sovereign wealth fund, the China Investment Corporation (CIC), as it is not development nor developing country focused.

Three motives drive the establishment of development funds in general and in China. The primary reason is a sustained increase in a country's foreign exchange reserves (Sen, 2010), allowing the allocation of foreign reserves (particularly USD) to overseas projects. This has happened in China, where the country's US Dollar reserves tripled from US$1 trillion in 2006 to about US$3.2 trillion in 2021 (Reuters, 2021). Development funds provide an instrument to channel these reserves to soak up liquidity and reduce trade-surplus-led inflation, and most sovereign wealth funds are funded directly from the reserves of central banks. For China, this is the People's Bank of China (PBoC) and the State Administration of Foreign Exchange (SAFE), which organizationally is part of the PBoC. For China and others, a second reason for establishing funds lies in the market outlet they offer to Chinese companies going overseas, as many project loans require the involvement of Chinese construction or technology companies (Myers & Gallagher, 2020). Political influence is a third major motive for establishing such funds to gain soft power (Morgan, 2019) and allows host countries to attract further investment (Shullman, 2019). This is, for instance, the potential reason for the establishment of the China-Africa Development Fund (CAD Fund) as one of the 'Eight Measures' for China-Africa cooperation announced by the then-president Hu Jintao on the 2006 Beijing Summit of the Forum on China-Africa Cooperation. The CAD Fund was, accordingly, the first of the Chinese development funds established in 2007 to be included in our analysis. Based on in-depth research of Chinese and English sources, the paper identifies a further 18 funds that have been established and that meet our definition and criteria since then. As data are often very disbursed, not updated and sometimes contradictory, the data are filtered and cross-checked through triangulation as far as possible.

Table 1 provides an overview of the 19 identified funds, their year of establishment, their announced size, main investors, management responsibility, investment tools, focus sectors, and geographical scope. In the overview of the funds, a number of key issues stand out. First, the funds were all established between 2007 and 2017, a period of rapidly expanding Chinese foreign reserves. Second, they vary substantially in scale, from US$500 million to US$54.5 billion, with most of the largest funds launched towards the end of the period. Third, the funding comes from PBoC and SAFE, as well as also from CIC, China Development Bank (CDB) and China Export–Import Bank (EXIM Bank), suggesting a complex relationship between SAFE to intermediaries and to the funds. Fourth, fund management varies substantially, including management with independence, under policy banks or MDBs. Furthermore, half of the funds are set up, sponsored or administered by either the CDB or EXIM Bank, which is an indication that their sustainability accounting practices are likely to be aligned with that of the policy banks. Fifth, three-quarters of the funds offer private equity financing, which adds another financing option to loan-based financing from policy and commercial banks. Sixth, the majority focuses on infrastructure, energy and natural resources, which are areas where Chinese engineering, procurement and construction companies are globally competitive and priority investees. Seventh, in addition to focusing on developing countries, the funds prioritize either the 132–140 countries that have signed up to the BRI by signing an MoU with China (Nedopil, 2021) or the 64 countries as defined by China. Summing up the 19 funds, the announced capital endowment totals US$213.1 billion.

3 | GAUGING THE FUNDS' SUSTAINABILITY POLICIES

The fund size, sectoral coverage and regional coverage of the funds suggest that they cumulatively have substantial potential impacts on sustainability issues in a variety of countries. To gauge the funds' potential risk and impacts on sustainability, the paper analyses the funds' sustainability policies and compares them with publicly available material on such policies. The paper further analyses three funds in more depth to understand specific circumstances on sustainable investment policies.

3.1 | Sustainability policies overview

To gauge the funds' approach to sustainability based on the core components of the IFC Environmental and Social Management System Capacity for Financial Institutions, the paper first assesses publicly available information across four interdependent and chronological areas of sustainability: Sustainability in their mandate and sustainability policies, social and environmental safeguards, sustainable finance flows as evidenced by the investment pipeline and the disclosure of their sustainability performance assessment (see Figure 1). These four areas are chosen by the authors as a summary of the IFC ESMS to comprehensively cover the main aspects where funds' policies influence sustainability. This scope is also in line with China's official ambitions of greening the BRI. For example, the four areas are aligned with the nine recommendations of the 'Green Development Guidance for BRI Projects Baseline Study' launched by the Belt and Road Initiative International Green Development Coalition, which is supervised by the Chinese Ministry of Ecology and Environment (Nedopil et al., 2020).

From our data collection, we found that many funds have not published any or very little information on their sustainable investment or 'development' policy approaches and impacts, nor on their environmental and social investment policies. Furthermore, many funds do not publish fundamental information on their ambition and overall strategy, that is, how to support 'development', while information on their effective achievements is also mostly lacking. Information released by the funds and media reports often provides mere anecdotal evidence of funds' activities through the description of a limited number of flagship projects. This finding of a lack of transparency and reporting has previously been identified across emerging countries' development finance institutions by Bhattacharya et al. (2019), who emphasize that such funds have a long way to go towards data transparency and accessibility. Such

TABLE 1 Overview of Chinese development funds (*Source*: Authors' compilation).

	Year of establishment	Announced size (billion US$)	Capital committed or disbursed (billion US$)	Funding source	Management responsibility	Investment tools	Focus sectors	Geographical scope of investment
Asia								
Silk Road Fund	2014	54.5	7 (by 2017)	SAFE (65%), CIC (15%), EXIM Bank (15%), CDB (5%)	Independent	Equity, debt, funds, other	Infrastructure, energy and industrial capacity	Countries along the Belt and Road routes, mainly Asian countries
China-ASEAN Investment Cooperation Fund	2009	10	No information	CIC & EXIM Bank	Independent	Private equity	Infrastructure, energy and natural resources	China and ASEAN
China-ASEAN Maritime Cooperation Fund	2011	0.5	No information, seemingly inactive	No information	No information	No information	Maritime connectivity and environmental protection	China and ASEAN
China-Indonesia Maritime Cooperation Fund	2012	No	No information, seemingly inactive	No information	No information	No information	Connectivity and cooperation	China and Indonesia
Europe								
China-Central and Eastern Europe Investment Cooperation Fund	2012	1.5	No information	China EXIM Bank and Hungarian EXIM Bank, Silk Road Fund, and CEE Equity Partners	Independent limited partnership	Equity, mezzanine debt, hybrid	Infrastructure, energy, manufacturing, communications	Central and Eastern Europe
Russia-China Investment Fund	2012	4	1 (by 2017)	CIC, Russian Direct Investment Fund, Public Investment Fund of Saudi Arabia	Independent	Private equity	Infrastructure, agriculture and natural resources	70% invested in Russia, and 30% invested in China

TABLE 1 (Continued)

	Year of establishment	Announced size (billion US$)	Capital committed or disbursed (billion US$)	Funding source	Management responsibility	Investment tools	Focus sectors	Geographical scope of investment
China-Russia RMB Investment Cooperation Fund	2017	10	No information	Russia-China Investment Fund, Suiyong Capital, Dazheng Investment Group.	Russia-China Investment Fund & CBD Capital	No information	Project supporting bilateral economic, trade and investment relations	Russia, China and BRI
Latin America								
China-Latin America Production Capacity Cooperation Investment Fund (CLAI fund)	2014	30	No information	SAFE Wutongshu Investment Platform (85%) EXIM Bank (15%)	No information	No information	Infrastructure, energy, natural resources, manufacturing, information and communications technology	Latin America
Special Loan Program for China-Latin America Infrastructure Fund	2014	20	No information	SAFE Capital	China Development Bank	Infrastructure loans to support Chinese enterprises	Infrastructure	Latin America
China-LAC Cooperation Fund (CLAC Fund)	2014	Target: 30 (first close 10)	No information	SAFE (80%) and CDB (20%)	Investment Center of SAFE, jointly with CAFIC	No information	Infrastructure, energy, natural resources, agriculture, manufacturing and IT	Latin America
China-Mexico Investment Fund	2014	1.2	No information	CIC and CDB Capital	World Bank IFC	Equity and mezzanine	Infrastructure and automotive industry	Mexico

(Continues)

TABLE 1 (Continued)

	Year of establishment	Announced size (billion US$)	Capital committed or disbursed (billion US$)	Funding source	Management responsibility	Investment tools	Focus sectors	Geographical scope of investment
Brazil-China Cooperation Fund for Expansion of Production Capacity	2017	20	No information	15 from CLAI (additional to its 30), 5 from Brazil	China Investment Corporation	Loans including subsidized, equity	Railway, infrastructure, industry	Brazil
China Co-financing Fund for Latin America	2013	2	No information	PBoC and IDB	Inter-American Development Bank	Pubic and private sector loans	Poverty, private sector development, climate change	Latin America
Africa								
China-Africa Development Fund (CAD Fund)	2007	10	No information	CDB	CDB	Private equity	Mining, energy, manufacturing, agriculture and livelihood	Africa
Africa Growing Together Fund	2014	2	No Information	PBoC	African Development Bank	Loans	Infrastructure	Africa
China-Africa Industrial Capacity Cooperation Fund (CAFIC)	2015	10	0.5 (2018)	SAFE (80%) and EXIM Bank (20%)	China EXIM Bank	No information	Infrastructure, energy, manufacturing, agriculture and mining	Africa

TABLE 1 (Continued)

	Year of establishment	Announced size (billion US$)	Capital committed or disbursed (billion US$)	Funding source	Management responsibility	Investment tools	Focus sectors	Geographical scope of investment
Global								
South–South Cooperation Assistance Fund	2015	3	No information	No information	China International Development Cooperation Agency	No information	No specific theme	The least developed countries, small countries and island countries
China-Portuguese Speaking Countries Cooperation and Development Fund	2010	1 (initial phase 0.125)	No information	CDB Capital and Macao Industrial and Commercial Development Fund	China-Africa Development Fund Co. Ltd.	Equity and quasi-equity	Private sector development, globalization,	Portuguese Speaking Countries

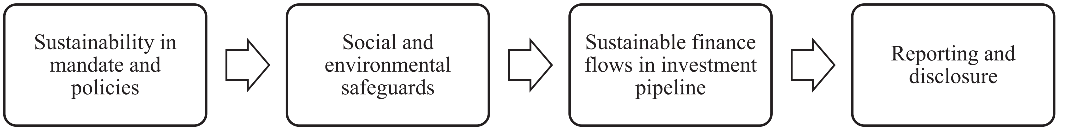

FIGURE 1 Sustainability evaluation process based on IFC Environmental and Social Management System (ESMS) integration (*Source*: Authors visualization based on IFC ESMS).

a lack of transparency is in itself problematic as best practice requires disclosure on all four aspects in question, such as seen in the IFC ESMS.

Despite this lack of transparency, through detailed analysis of Chinese and English online sources, we were nevertheless able to collect a relevant overview of the funds' sustainability approaches across mandate, safeguards, investment portfolio and performance disclosure, which is summarized in Table 2. First, the table shows that half of the funds include different areas of sustainability in their mandate, while the rest either do not or disclose no information about it. Second, while half the funds have not published any safeguards, the other half uses the safeguards of the organization managing them. Third, none of the funds disclose their entire pipeline of projects. Half of the funds disclose selected project examples, while the other half discloses no information at all. Amongst the few projects identified, fossil fuel projects were featured at least four times as frequently as renewable energy (when excluding hydropower) projects. Fourth, only one of the 19 funds disclosed details on its sustainability performance, and even in this case, the details are limited. These findings considered together suggest that the funds lack prioritization of sustainability across all four areas. This, in turn, suggests that the funds' sustainability impact in practice is likely to be problematic. We could counter-argue by saying that the lack of publicly available information on many aspects of the funds' sustainability policies does not mean that these policies do not exist. It could simply tell us that they are not made available in the public space. However, two of the important aspects of sustainability for financial institutions require transparency: transparency for affected stakeholders to engage with the financial institution based on their stated policies and practices and transparency in reporting to inform the public (including affected stakeholders) about sustainability impacts. As such, even if internal sustainability policies and processes exist within the funds, their effectiveness and relevance would be limited for effectively engaging with the affected stakeholders and communities.

3.2 | Analyzing three case studies

To further understand sustainability policies for the funds' investment strategy, in-depth analyses of three funds are conducted below. The three funds chosen are the China Africa Development Fund (CAD fund), the Silk Road Fund (SRF) and the China-Latin America Production Capacity Cooperation Investment Fund (CLAI fund). They were selected based on average data availability, amongst which is one fund with relatively high information availability compared to the average (SRF), one fund with high information uncertainty (CAD) and one fund with the least information (CLAI). That selection intends to give as much representability as possible on how sustainability approaches can be assessed for the other 16 funds. They also intend to give the reader a concrete, on-the-ground idea of the project types the funds are involved in.

3.2.1 | China Africa Development Fund (CAD Fund)

As the first of the funds to be established, the CAD Fund was announced at Forum on China-Africa Cooperation in 2006. At US$10 billion, the fund is capitalized by the CDB, independently managed and focused on private equity.

TABLE 2 Overview of four areas of sustainability across Chinese development funds (*Source*: Authors' compilation).

	Sustainability in mandate	Social and environmental safeguards	Investment pipeline transparency	Sustainability performance assessment and disclosure
Asia				
Silk Road Fund	None in core mandate. Social responsibility mentioned separately	No information	Numerous examples, non-comprehensive	No information
China-ASEAN Investment Cooperation Fund	'Committed to invest in responsible manner'	Own system, not disclosed	Limited examples, non-comprehensive	No information
China-ASEAN Maritime Cooperation Fund	Environmental protection	No information	No information	No information
China-Indonesia Maritime Cooperation Fund	No information	No information	No information	No information
Europe				
China-Central and Eastern Europe Investment Cooperation Fund	Contribute to sustainable development	No information	Limited examples, non-comprehensive	No information
Russia-China Investment Fund	None	No information	Limited examples, non-comprehensive	No information
China-Russia RMB Investment Cooperation Fund	No information	No information	No information	No information
Latin America				
China-Latin America Production Capacity Cooperation Investment Fund (CLAI fund)	No information	No information	No information	No information
Special Loan Program for China-Latin America Infrastructure Fund	No information	Through host: China Development Bank	No information	No information
China-LAC Cooperation Fund	No information	Through hosts: China EXIM Bank and Inter-American Development Bank	No information	No information
China-Mexico Investment Fund	No information	Through host: World Bank IFC	Limited examples, non-comprehensive	No information

(Continues)

TABLE 2 (Continued)

	Sustainability in mandate	Social and environmental safeguards	Investment pipeline transparency	Sustainability performance assessment and disclosure
Brazil-China Cooperation Fund for Expansion of Production Capacity	No information	Through host: China Investment Corporation	Limited examples, non-comprehensive	No information
China Co-financing Fund for Latin America	Poverty, private sector development, climate change, social welfare, gender equality	Through host: Inter-American Development Bank	Limited examples, non-comprehensive	No information
Africa				
China-Africa Development Fund	Reduce poverty, sustainable development	No information	Limited examples, non-comprehensive	No information
Africa Growing Together Fund	Poverty alleviation	Through host: African Development Bank	Examples via AfDB, non-comprehensive	Examples via AfDB, Non-comprehensive
China-Africa Industrial Capacity Cooperation Fund (CAFIC)	None	Through host: China EXIM Bank	No information	No information
Global				
South–South Climate Cooperation Fund	Climate change, pollution	No information	No information	No information
South–South Cooperation Assistance Fund	Sustainable development	No information	Limited examples, non-comprehensive	No information
China-Portuguese Speaking Countries Cooperation and Development Fund	Economic development	No information	Limited examples, non-comprehensive	No information

With its risk appetite and investment profile, the CAD Fund has been described as a private equity and venture capital investment arm of the CDB, specializing in the expansion stage, mature stage and buyout investments (Wong, 2018). In terms of mandate, sustainability is in the core mission of the CAD Fund as it supports industrialization and agricultural modernization and 'helps Africa to realize sustainable development on its own', as the official website contends (CAD Fund, 2021). Yet no safeguards nor performance assessments are disclosed. Yet, the fund or any other data sources used for this paper shows any details on how this sustainability intention is turned into practice.

In terms of projects, by 2016, the fund had invested US$4 billion in 88 projects in 37 African countries while attracting an additional US$17 billion in investment and loans, according to the Chinese embassy in South Africa (2016). As a characteristic shared with the other funds, no comprehensive statistics exists on the entire investment pipeline. However, according to Li (2020), 40% of the fund's investments are in mining, with other key sectors including manufacturing, telecommunications and agriculture. Key projects include a uranium mine in Namibia, a coal-fired power plant in Ghana, and special economic zones in Nigeria and Egypt.

This suggests that the fund has a limited focus on sustainability, which it only mentions rhetorically. This is also reflected in its integration of sustainability into its governance, as shown in Table 2. Since only a few projects are disclosed, it is not possible to estimate the fund's overall impact, though the lack of explicit sustainability initiatives combined with the overweight of environmentally sensitive projects suggests that the performance is likely to be problematic. In fact, the CAD fund appears to be the least transparent of the Chinese funds, with uncertainties not only on projects but also on its size, funding sources, or even nature as a sovereign fund (Brautigam, 2015). In summary of her analysis of the fund carried out at Boston University Global Development Policy Center, Li (2020) concludes that the fund's investments are driven by a combination of state interest and market forces rather than the development of Africa.

3.2.2 | Silk Road Fund (SRF)

The SRF was established in 2014 to provide financial support specifically for the BRI, primarily through equity investments in companies in the energy, infrastructure and resources sectors. The fund is entirely owned by the Chinese government, with 65% of the US$40 billion capital endowment coming from the State Administration of Foreign Exchange (SAFE), 15% from the China EXIM Bank, 15% from the China Investment Corporation (CIC) and 5% from the CDB. In terms of mandate and mission, the SRF promises to respect international standards and abide by the laws and regulations of host countries. It furthermore 'pays close attention to environmental issues and sustainable development, and actively works to address its social responsibilities' according to its official website (SRF, 2021). In addition, as is often the approach of Chinese overseas investments, environmental issues are mentioned as important though it should 'take into consideration the unique characteristics of the destination countries', as Qi Jin, the SRF Chairwoman, said at the 2016 BRI Summit (Qi, 2016; Voituriez et al., 2019). However, the fund does not disclose how these intentions are turned into practice, such as through safeguards or performance assessment.

According to the China Council for International Cooperation on Environment and Development, SRF has invested in 19 projects at a total value of US$7 billion by the end of 2017 (CCICED, 2018). However, due to a lack of transparency in the investment pipeline, only seven projects can be identified and verified through the data sources mentioned above. Most projects identified are in fossil fuel energy, such as investments in a Russian energy company, a 'clean coal' powerplant, and an LNG project. Other investments include a hydropower project, an infrastructure project development platform, and the Mombasa-Nairobi railroad.

The SRF can be seen as a clear example of the fund realizing two advantages for China, namely as an outlet for foreign reserves and to support strategic political purposes. Yet the third advantage of supporting Chinese companies abroad does not seem to be a priority. While sustainability is mentioned as an addition to the core mandate, the project pipeline has a heavy overweight of fossil fuel projects, and the SRF discloses no safeguards or sustainability performance.

3.2.3 | China-Latin America Production Capacity Cooperation Investment Fund (CLAI fund)

In view of the limited information publicly available, the arrangement of Chinese funds with a focus on Latin America remains unclear. While the main fund is the CLAI Fund, two other funds exist with a seeming overlap, namely, the China-LAC Cooperation Fund (CLAC Fund) and Special Loan Program for China-Latin America Infrastructure. At US$30 billion, the CLAI Fund is the largest and is funded primarily by SAFE, though uncertainty exists on whether the remainder is from EXIM Bank (Myers & Gallagher, 2020) or CDB (Myers & Ray, 2021). In 2019, it was announced that CLAI Fund would merge with CAFIC Fund to better serve the needs of Chinese companies operating in both regions (Peng et al., 2019). This suggests a clear focus on using these sovereign funds to support Chinese companies going abroad, which was identified as a central motive for China to set up funds. In terms of sustainable development, no details exist on the fund's approach to sustainability in the mandate, safeguards, pipeline or impact assessment. The fund does not have a functioning website nor a description on SAFE's website. The details identified for this paper and by all the data sources listed above only rely on news pieces by Chinese media and embassies, as well as Latin American media.

A number of projects have been identified, with a concentration in the energy sector and in Brazil (Myers & Ray, 2021). For example, the fund has helped Three Gorges Corporation get rights to operate and buy hydropower projects in Brazil, as well as acquire the largest power company in Peru (Ingram, 2020). The fund is also involved in the construction of a port in Brazil constructed by a Chinese company to export soybeans to China (Marray, 2018). What all projects identified have in common is that they support Chinese companies in areas of strategic importance to China.

Details on the CLAI Fund are more scarce than for most of the other funds, and it is selected as a case to exemplify the difficulties of gauging sustainability approaches from such an outset. Yet, based on available information, the funds' projects have an emphasis on environmentally potentially problematic sectors, such as hydropower, and a strong focus on projects of strategic importance to China. This may push sustainability issues down the list of priorities. Furthermore, as transparency is a sustainability practice in itself, the lack of public information is poor performance on that sustainability aspect. Ultimately, the identified projects and lack of information in combination suggests a problematic approach to sustainability.

4 | IDENTIFYING BEST PRACTICES

The above sections have shown both that the Chinese funds have a substantial impact on sustainable development and that their approach to sustainability is problematic. Best practices that the Chinese funds can learn from exists, in particular across MDBs and national development banks (NDBs). Comparing with these banks does not suggest that the funds should become identical to them, but rather that they can incorporate best practices from their sustainability approaches. It furthermore does not suggest that these banks have the optimal sustainability policies in place, but rather that they are amongst the world's leading institutions from which best practices can be identified. To make the comparison more concrete, we focus on global climate change as one particular sustainability issue and report commitments and ongoing practices set up to tackle it. Table 3 compares the practice of selected MDBs, and NDBs, across fossil fuel limits, green/low-carbon proportions, as well as sustainability assessment and disclosure. It does not include the first two of the four areas of Table 2 as MDBs and NDBs, with only a few exceptions, all have sustainability as a core in their mandate, and all have different types of social and environmental safeguards in place (Griffith-Jones & Ocampo, 2016; Larsen, 2018). The latter two areas of Table 2 concerning pipeline transparency and impact assessment are considered as part of sustainability assessment and disclosure in the below table.

First, from Table 3, it can be seen that about half of MDBs and NDBs have committed to a fossil fuel phase-out. This is a clear example of how the institutions may be leading the way of sustainability approaches while by no means being perfect across the board. Second, many MDBs and NDBs have put in place regulator limitations for fossil fuel projects as well as minimum proportions for green projects. Third, most MDBs, but to a lesser extent NDBs, disclose a complete sustainability assessment pipeline of projects they are involved in. Also, in this regard, most MDBs are required to conduct and publish external reviews of their projects, and while NDBs may have similar review requirements, they are not published as comprehensively.

From these experiences, it can be argued that the best practice for ensuring a funds' contribution to sustainability is to have all such measures in place from Tables 2 and 3. That means having sustainability prioritized in the mandate, environmental and social safeguards, disclosing the entire project pipeline, publishing external reviews of sustainability performance, excluding fossil fuel projects and adopting minimum green investment proportions. From this, it is clear that the MDBs have the most comprehensive and ambitious sustainability approach in place, while the section above shows that Chinese funds are only engaging to a very limited extent in any of the measures.

TABLE 3 Key sustainability aspects across MDBs, NDBs and funds, including the Chinese development funds (*Source*: Authors' compilation).

Institution	Fossil energy phase-out	Climate portfolio target	Sustainability assessment and disclosure
Multilateral Development Banks (MDBs)			
European Investment Bank	Phase out fossil fuel investment by 2022 Support on power generation technologies under an emissions threshold of 250 g CO_2 per kilowatt-hour, and phase out support to large-scale heat production based on unabated oil, natural gas, coal or peat, upstream oil and gas production, and traditional gas infrastructure	EIB Group to align all financing activities with the goals of the Paris Agreement from the end of 2020 More than 50% of annual financing dedicated to green investment by 2025	Sustainability disclosures in accordance with SASB framework (Sustainability Accounting Standards Board)—including ESG and EIB's portfolio carbon footprint
European Bank for Reconstruction and Development	Coal power plants and mining (2013), with exceptions. Stop investing in upstream oil and gas projects by the end of 2022	Increase green financing to more than 50% of its annual business volume by 2025 Reach net annual GHG emissions reductions of at least 25 million tonnes over 2021–2025	Investment projects are screened and categorized on a sliding scale based on the significance of potential environmental impacts or risks, following on The Bank's Environmental and Social Policy and Performance Requirements.
World Bank Group	Coal power plants and mining, with exceptions (2013) Upstream oil and gas (2019)	World Bank to align financing flows with the objectives of the Paris Agreement by July 2023 (2025 for IFC and MIGA). Target of 35% of its lending going to climate action on average from 2021 to 2025	Projects are subject to due diligence before approval to assess their compliance with the Bank's Environmental and Social Policy for Investment Project Financing, which sets out the requirements that apply to the Bank. 10 Environmental and Social Standards (ESS) set out the requirements that apply to borrowers.

(Continues)

TABLE 3 (Continued)

Institution	Fossil energy phase-out	Climate portfolio target	Sustainability assessment and disclosure
Inter-American Development Bank	No	Financing related to climate change to an annual floor of 30% for each of its windows, which includes the IDB, IDB Invest, and IDB Lab	IDB's Environmental and Social Safeguards Compliance Policy commits the Bank to calculate gross (or absolute) emissions from IDB-financed projects that may generate significant amounts of GHG emissions.
Asian Development Bank	ADB will not finance any coal mining, oil, and natural gas field exploration, drilling or extraction activities. ADB will not finance any new coal-fired capacity for power and heat generation or any facilities associated with new coal generation	At least 75% of its operations focus on climate adaptation and mitigation efforts while providing $80 billion in cumulative climate financing by 2030.	Investment projects are screened and categorized on a sliding scale based on the significance of potential environmental impacts or risks, following ADB's Safeguard Policy Statement (SPS).
African Development Bank	No	40% of funding as climate finance by 2021 Increase access to climate finance for low-income African countries with a target of $25 billion by 2025	Bank developed its Integrated Safeguard System designed to meet ESG international standards. The sustainability report is not disclosed.
Asian Infrastructure Investment Bank	Unclear	Aim at achieving 50% direct investment for climate change mitigation by 2025.	Investment projects are screened and categorized on a sliding scale based on the significance of potential environmental impacts or risks, following on AIIB Environmental and Social Policy. The sustainability report is not disclosed.
CAF Development Bank	No	No	All credit operations must be developed under strict compliance with the local norms of the countries and the bank's Environmental and Social Safeguards.
Islamic Development Bank	No	IsDB has committed to a climate finance target of 35% of overall annual lending by 2025.	A sustainable finance framework was set up to frame the use of proceeds of green bonds. No ESG reporting could be found.

TABLE 3 (Continued)

Institution	Fossil energy phase-out	Climate portfolio target	Sustainability assessment and disclosure
New Development Bank	Unclear	No	All projects undergo environmental and social due diligence based on relevant environment and social country systems and the Bank's Environmental and Social Framework. The sustainability report is not disclosed.
National Development Banks (NDBs)			
Agence Française de développement (AFD)	Coal power plants with exceptions (2012)	Commitment to become the leading '100% Paris Agreement' development institution 50% of funded projects should offer benefits of climate change mitigation	AFD Group does not have specific E&S Standards and applies World Bank Group Standards, including the World Bank ESS Framework and IFC Performance Standards.
Banco Nacional de Desenvolvimento Econômico e Social (BNDES)	Oil and coal power plants, cap on lending to gas power plants (2016)	No	Investment projects are screened and categorized on a sliding scale based on the significance of potential environmental impacts or risks, following on BNDES Socioenvironmental Policies in different sectors (power, sugar ethanol, cattle and mining).
Kreditanstalt für Wiederaufbau (KfW)	KfW stops financing all coal-related business activities (2019)	No	KfW does not have specific E&S Standards and applies World Bank Group Standards, including the World Bank ESS Framework and IFC Performance Standards.

(Continues)

TABLE 3 (Continued)

Institution	Fossil energy phase-out	Climate portfolio target	Sustainability assessment and disclosure
Japan Bank for International Cooperation (JBIC)	No	No	JBIC applies World Bank Group Standards, including the World Bank ESS Framework and IFC Performance Standards
China Development Bank (CDB)	No	No	China EXIM Bank and CDB have not adopted the international standards set by the World Bank or the International Finance Corporation. They have developed their own guidelines. The host country standards apply when they are lower than CDB and China EXIM Bank standards.
China EXIM Bank	No	No	

TABLE 4 Policy recommendations (*Source*: Authors).

Recommendations	Benchmark
1. Increase transparency	Existing standards applied domestically
2. Participate in international sustainable finance initiatives	Task Force on Climate-related Financial Disclosure (TCFD) UN Principles for Responsible Investment
3. Fossil fuel phase-out (beyond coal) and green proportions	Coal phase-out by China NDRC 'negative lists' for overseas investment
4. Ensure sustainability in mandates and put safeguards in place	China's MDBs (AIIB and NDB)

5 | FUNDS' GOVERNANCE AND POLICY RECOMMENDATIONS

The findings above suggest that the Chinese funds need to change their approach to sustainability to ensure their contribution to the SDGs. This can be done through the four areas of Table 2 with the addition of fossil limits and climate proportions in Table 3. To see how this can be done in practice, it is critical to understand how the unique way in which Chinese funds are governed through policymakers, regulators and state funders. The funds' currently deficient sustainability approach is shaped by how they are governed, and similarly, improving their approaches has to be changed through governance as well.

As shown in Table 1, there are four key funders of the funds, namely, CDB, China EXIM Bank, CIC and PBoC (to which SAFE belongs organizationally). This is notably in contrast to domestic green funds, which are often supported directly by the Ministry of Finance (MOF) or local government finance bureaus, such as the newly established Chinese National Green Fund (Bai & Yang, 2020; Y. Wang & Xu, 2020). The MOF is also the source of China's contribution to MDBs. Greater variety exists on the fund management side, where some are managed by CDB, China EXIM Bank or CIC, whereas others are managed by MDBs, asset managers or independently.

The trend identified in this governance setup is that all four funders are ministry-level organizations, which work either individually with each fund or with overlaps. As ministry-level organizations, they are only directly governed by the State Council. Additionally, CDB and China EXIM Bank are regulated and given oversight by the China Banking and Insurance Regulatory Commission (CBIRC), while all overseas investment is monitored and approved by the

Ministry of Commerce (MOFCOM) or the National Development and Reform Commission (NDRC) depending on the size, sector and geography (Gallagher & Qi, 2018, 2021). From this situation, while there are so far no policies specifically targeting the funds, such policies can be launched from three sources.

First, policies targeting all funds simultaneously must be issued by the Chinese State Council, as it governs the below ministry-level bodies. While State Council policies have so far not been targeted specifically at the funds in the past, there are policies classifying Chinese overseas investment as 'encouraged, restricted, and prohibited', which cover climate and fund purposes (Gallagher & Qi, 2018). Second, each of the ministry-level bodies can issue policies covering their own involvement in the funds. For example, PBoC, as the designated leading organization on green finance in China, could issue soft guidelines or hard regulations on the funds, such as seen previously in the guidelines on dealing with environmental risks in overseas investments (GFC, 2017). Lastly, regulators not involved in funding or management of the funds could issue policies with direct or indirect effects. This includes the CBIRC covering the policy banks and MOFCOM approving and supervising overseas investment, such as the current regulation requiring that banks disclose their green lending to the CBIRC (Escalante et al., 2020). As the first steps towards improving the funds' approach to sustainability, the paper has identified four central policy areas, as summarized in Table 4.

5.1 | Increase transparency in line with existing standards applied domestically

Low transparency leads to distrust and miscommunication and devalues the anticipation of China being a 'climate champion' or 'a better partner' to developing countries than the West (Li, 2020). In particular, China's stance to become a climate champion is inconsistent with its own practices of funding fossil fuel projects overseas (Larsen & Oehler, 2022; Zhou et al., 2019), while global investors are scaling down such investments (IEA, 2020). It would thus be in China's interest to radically upgrade the funds' transparency and reporting practices. In addition to the contents of the reporting, doing such reporting in itself is a key part of sustainable fund practice (IFC, 2021). This would imply setting up and publishing an information disclosure policy based on existing Chinese standards on climate (MEE et al., 2020), green (NDRC et al., 2019) and sustainability issues (Nedopil & Xu, 2020). Using standards and taxonomies already in place domestically ensures that regulators can maintain their required control of the practice. This requirement should include publication on a yearly basis of the funds' activities, providing a comprehensive view of the fund's effective investment portfolio and sectoral allocation. A concrete way of implementing this policy recommendation would be for the State Council to issue a requirement on reporting and subsequently for the China Green Finance Committee[1] to develop guidelines for reporting giving leeway to each fund to disclose based on their circumstances. Such a policy would improve the funds' sustainability approach in the latter two areas of Tables 1 and 2, namely, pipeline transparency and performance assessment.

5.2 | Participate in international sustainable finance initiatives

Falling behind international sustainability practice, a direct way to catch up is for the funds to participate in international sustainable finance initiatives. Amongst the most suitable is the Task Force on Climate-related Financial Disclosure (TCFD), towards which the funds can voice their support and adapt their disclosure as required in the above recommendations. ICBC is currently part of a TCFD pilot (ICBC, 2018), suggesting that the initiative already has recognition in China. Second, membership of the UN Principles for Responsible Investment would signal that the funds adhere to the most basic principles of sustainable finance without forcing strong requirements onto the banks.

[1]The Green Finance Committee (GFC) of China Society for Finance and Banking is a body set up by the PBoC whose members include all major financial institutions across banks, insurance companies, asset managers and more. It works as the main platform for dialogue and coordination of green finance policy in China.

The initiative already has 60 Chinese members (UN PRI, 2021), increasing rapidly over the last few years. Though it would be the funds themselves participating, through their governance structure, Chinese state organs governing each fund could require the funds' participation. This is additionally important as countries across the global South are more likely to support these initiatives if China does so (Larsen, 2022).

5.3 | Fossil fuel phase-out and green proportions

As an action with a strong signalling value, phasing out fossil fuel investments and requiring a certain proportion of investments to be green is a policy that could rapidly get the funds' to the level of the MDBs as the setters of best practice. As shown in Table 3, this practice is becoming mainstream for development finance institutions. Most recently, Japan began tightening rules of state-backed financing for overseas coal-fired power plants (Sheldrick & Obayashi, 2020). As China is part of financing 72% of coal plants outside China (Refinitiv, 2020), this adds pressure on China to follow along. As the funds are part of this picture, a concrete policy would be to divest from all fossil fuel assets (beyond coal) within a certain number of years, such as by 2030. The announcement of September 2021 that China will stop overseas coal financing is an important step. Available data show that China-backed global energy finance switched to oil and gas in 2021 and 2022, in a context where energy funding from Chinese policy banks collapsed to zero (Ferris, 2022). Broadening the scope of fuels phase-out to oil and gas, which in most years make up a higher proportion of China's overseas energy investments than coal (Nedopil, 2022b), is thus critical. Another direct way to address the issue would be for NDRC to include more brown projects, such as fossil fuels, on 'negative lists' for overseas investment, which currently include items such as real estate, hotels, film, entertainment and sports clubs (Gallagher & Qi, 2018).

5.4 | Ensure sustainability in mandates and put safeguards in place

The Chinese funds can follow global best practices by explicitly including sustainable development in the mandates of the funds. This is seen in about half already but should be expanded to the remaining half. The mandate should further explicitly mention that the funds intend to contribute to host countries' low-carbon transition. As China intends to peak emissions in 2030 and be carbon neutral by 2060, including low-carbon transition in the mandates would be a logical extension of these principles into overseas investment. Furthermore, environmental and social safeguards should be in place to ensure no negative sustainability consequences from the projects that the funds are involved in. On both accounts, the relevant Chinese state organs of the funds should update the articles governing the funds to follow the practice of MDBs. As China has initiated two MDBs themselves, namely the AIIB and NDB, the Chinese Ministry of Finance already endorses their practices. It would therefore be easier to expand the principles of these two MDBs to cover the funds rather than develop new safeguards for each fund.

6 | CONCLUSION

Literature on sustainable finance and investments related to China's overseas engagement has focused much on its policy banks and partly its commercial banks. While Chinese development funds are an important component of China's overseas engagement strategy, they remain largely unaddressed in the literature on Chinese policies governing overseas investment. This paper has found that the funds play an important role in host countries' development trajectories but also that the funds lack transparency and face a series of problems in their sustainability approaches. This contributes to the various literature on the topic mentioned in the introduction. In terms of scale and possible impact, the paper suggests that total Chinese overseas development financing is greater than previous estimates, as these tend to focus on commercial and policy banks, often excluding funds. Though unable to estimate the funds' sustainability impacts, the papers' findings provide important context and input for future studies on Chinese overseas development finance. Furthermore, in terms of policies and governance, the paper's findings show a lack of transparency within certain areas and a complex system of governing bodies shaping the activities of the funds. These findings advance an emerging research agenda on the governance of Chinese sustainable finance, especially in terms of understanding the overarching system governing Chinese overseas development finance.

Looking into the future, since more countries around the world are limiting fossil fuels in overseas state-backed financing, this puts pressure on China to integrate China's recent domestic pledges of carbon neutrality into the country's overseas investments. Putting in place policies to align China's funds with the Paris Agreement is an important component in advancing Chinese sustainability ambitions beyond domestic progress into overseas actions. Moving beyond confidentiality towards global best practices of sustainable finance would be the first critical step in this direction.

ACKNOWLEDGEMENTS

We would like to thank the reviewers and editors for their contributions to improving the manuscript.

CONFLICT OF INTEREST STATEMENT

No potential conflict of interest were reported by the authors.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

ORCID

Mathias Lund Larsen https://orcid.org/0000-0002-0442-7066
Christoph Nedopil https://orcid.org/0000-0001-9408-4935

REFERENCES

AEI. (2021). *China Global Investment Tracker*. American Enterprise Institute - AEI. https://www.aei.org/china-global-investment-tracker/

Bai, Y., & Yang, G. (2020). *State Plants $12.7 Billion 'Green Fund' on Banks of the Yangtze*. Caixin. https://www.caixinglobal.com/2020-07-17/state-plants-127-billion-green-fund-on-banks-of-the-yangtze-101581372.html

Bhattacharya, A., Gallagher, K. P., Munoz Cabré, M., Jeong, M., & Ma, X. (2019). Aligning G20 Infrastructure Investment with Climate Goals and the 2030 Agenda. *Foundations*, *20*.

Brautigam, D. (2015). *Mysteries of the China Africa Development Fund*. http://www.chinaafricarealstory.com/2015/03/is-cad-fund-sovereign-wealth-fund.html

BU. (2021). *Global China Initiative*. Boston University Global Development Policy Center. https://www.bu.edu/gdp/research/gci/

Cabré, M. M., Gallagher, K. P., & Li, Z. (2018). Renewable Energy: The Trillion Dollar Opportunity for Chinese Overseas Investment. *China & World Economy*, *26*(6), 27–49. https://doi.org/10.1111/cwe.12260

CAD Fund. (2021). *China-Africa Development Fund*. China-Africa Development Fund. https://www.cadfund.co.za/en/News-Infocc0c.html?NId=48

CCICED. (2018). *Green Belt and Road and 2030 Agenda* (p. 24). China Council for International Cooperation on Environment and Development.

Chen, X., Gallagher, K. P., & Mauzerall, D. L. (2020). Chinese Overseas Development Financing of Electric Power Generation: A Comparative Analysis. *One Earth*, *3*(4), 491–503. https://doi.org/10.1016/j.oneear.2020.09.015

Chinese Embassy SA. (2016). *Chinese fund invests 4 bln USD in Africa*. Chinese Embassy in South Africa. http://za.china-embassy.org/eng/zgxw/t1424767.htm

Custer, S., Dreher, A., Elston, T. B., Fuchs, A., Ghose, S., Lin, J., Malik, A., Parks, B. C., Russell, B., Solomon, K., Strange, A., Tierney, M. J., Walsh, K., Zaleski, L., & Zhang, S. (2021). *Tracking Chinese Development Finance: An Application of AidData's TUFF 2.0 Methodology*. AidData at William & Mary.

Equator Principles Association, & International Finance Corporation. (2020). *Equator Principles July 2020*. International Finance Corporation (IFC). www.equator-principles.com

Escalante, D., Choi, J., & Larsen, M. L. (2020). *Green Banking in China – Emerging Trends: With a spotlight on the Industrial and Commercial Bank of China (ICBC)*. Climate Policy Initiative.

Ferris, N. (2022, October 17). What has happened to China's global coal financing? Energy Monitor. https://www.energymonitor.ai/policy/what-has-happened-to-chinas-global-coal-financing

Gallagher, K. S., & Qi, Q. (2018). *Policies Governing China's Overseas Development Finance: Implications for Climate Change*. Tufts University, Fletcher School, Climate Policy Lab.

Gallagher, K. S., & Qi, Q. (2021). Chinese Overseas Investment Policy: Implications for Climate Change. *Global Policy*, *12*(3), 260–272. https://doi.org/10.1111/1758-5899.12952

GFC. (2017). *Environmental Risk Management Initiative for China's Overseas Investment*. Green Finance Committee (GFC) of China Society for Finance and Banking.

Griffith-Jones, S., & Ocampo, J. A. (2016). *Future of National Development Banks. International Encyclopedia of Geography: People, the Earth, Environment and Technology* (pp. 1–7). Oxford University Press.

Ha, S., Hale, T., & Ogden, P. (2016). Climate Finance in and between Developing Countries: An Emerging Opportunity to Build On. *Global Policy*, *7*(1), 102–108. https://doi.org/10.1111/1758-5899.12293

ICBC. (2018). *ICBC Actively Participates in Development of International Standards for Green Finance-Home-ICBC China*. Industrial and Commercial Bank of China. http://www.icbc.com.cn/ICBC/EN/NewsUpdates/ICBCNEWS/icbcactivelyparticipatesindevelopmentofinternationalstandardsforgreenfinance.htm

IEA. (2020). *World Energy Investment 2020*. International Energy Agency. https://www.iea.org/reports/world-energy-investment-2020

IFC. (2021). *Establish and Maintain an ESMS|FIRST for Sustainability*. International Finance Corporation. https://firstforsustainability.org/risk-management/implementing-ifc-environmental-and-social-requirements/establish-and-maintain-an-esms/

Ingram, E. (2020). *China Yangtze Power completes acquisition of Peru's Luz Del Sur*. Renewable Energy World. https://www.renewableenergyworld.com/baseload/china-yangtze-power-completes-acquisition-of-perus-luz-del-sur/

Kaplan, S. B. (2016). Banking unconditionally: The political economy of Chinese finance in Latin America. *Review of International Political Economy*, *23*(4), 643–676. https://doi.org/10.1080/09692290.2016.1216005

Kaplan, S. B. (2018). The Rise of Patient Capital: The Political Economy of Chinese Global Finance. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3108215

Kong, B., & Gallagher, K. P. (2017). Globalizing Chinese Energy Finance: The Role of Policy Banks. *Journal of Contemporary China*, *26*(108), 834–851. https://doi.org/10.1080/10670564.2017.1337307

Kong, B., & Gallagher, K. P. (2021a). Inadequate demand and reluctant supply: The limits of Chinese official development finance for foreign renewable power. *Energy Research & Social Science*, *71*, 101838. https://doi.org/10.1016/j.erss.2020.101838

Kong, B., & Gallagher, K. P. (2021b). The new coal champion of the world: The political economy of Chinese overseas development finance for coal-fired power plants. *Energy Policy*, *155*, 112334. https://doi.org/10.1016/j.enpol.2021.112334

Larsen, M. L. (2018). *The Role of Multilateral Development Banks in Green Finance*. International Institute of Green Finance.

Larsen, M. L. (2022). Driving Global Convergence in Green Financial Policies: China as Policy Pioneer and the EU as Standard Setter. *Global Policy*, *13*(3), 358–370. https://doi.org/10.1111/1758-5899.13105

Larsen, M. L., & Oehler, L. (2022). Clean at home, polluting abroad: The role of the Chinese financial system's differential treatment of state-owned and private enterprises. *Climate Policy*, *1–14*, 57–70. https://doi.org/10.1080/14693062.2022.2040409

Li, H. (2020). From Politics to Business: How a state-led fund is investing in Africa? In *Global Development Policy Center* (p. 27). Boston University., GCI Working Paper 10.

Li, Z., Gallagher, K. P., & Mauzerall, D. L. (2020). China's global power: Estimating Chinese foreign direct investment in the electric power sector. *Energy Policy*, *136*, 111056. https://doi.org/10.1016/j.enpol.2019.111056

Ma, J., & Zadek, S. (2019). *Decarbonizing the Belt and Road—A Green Finance Roadmap*. Tsinghua University. https://www.vivideconomics.com/wp-content/uploads/2019/09/Decarbonizing-the-Belt-and-Road-%E2%80%93Final-Report-English.pdf

Marray, M. (2018). *China begins construction of Sao Luis port in Brazil to support soybean importation*. The Asset. https://www.theasset.com/belt-road-online/34310/china-begins-construction-of-sao-luis-port-in-brazil-to-support-soybean-importation&c=8994275814218614181&mkt=en-gb

MEE, NDRC, PBoC, CBIRC, & CSRC. (2020). *Guidelines regarding promoting climate change finance* 生态环境部, 发展改革委, 人民银行, 银行监会, 证监会《关于促进应对气候变化投融资的指导意见》. Ministry of Ecology and Environment, National Development and Reform Commission, People's Bank of China, China Banking and Insurance Regulatory Commission, China Securities Regulatory Commission.

MOFCOM, M. (2013). *Environment Protection for Overseas Investment and Cooperation*. Chinese Ministry of Commerce.

Monasterolo, I., Zheng, J. I., & Battiston, S. (2018). Climate Transition Risk and Development Finance: A Carbon Risk Assessment of China's Overseas Energy Portfolios. *China & World Economy*, *26*(6), 116–142. https://doi.org/10.1111/cwe.12264

Morgan, P. (2019). Can China's Economic Statecraft Win Soft Power in Africa? Unpacking Trade, Investment and Aid. *Journal of Chinese Political Science*, *24*(3), 387–409. https://doi.org/10.1007/s11366-018-09592-w

Myers, M., & Gallagher, K. (2020). *Chinese Development Finance in LAC, 2019* (p. 8). The Dialogue & Boston University.

Myers, M., & Ray, R. (2021). *Chinese Finance in LAC 2020* (p. 10). Boston University Global Development Policy Center.

Narain, D., Maron, M., Teo, H. C., Hussey, K., & Lechner, A. M. (2020). Best-practice biodiversity safeguards for Belt and Road Initiative's financiers. *Nature Sustainability.*, *3*, 650–657. https://doi.org/10.1038/s41893-020-0528-3
NDRC, MIIT, NRC, MEE, MoHURD, PBoC, & NEA. (2019). *Green Industry Guiding Catalogue (2019 version)* (国家发展和改革委员会，工业和信息化部，自然资源部，生态环境部，住房城乡建设部，人民银行，国家能源局：绿色产业指导目录[2019年版]). National Development and Reform Commission. https://www.ndrc.gov.cn/fggz/hjyzy/stwmjs/201903/W020200217416444788586.pdf
Nedopil, C. (2021). *Countries of the Belt and Road Initiative (BRI)*. Green BRI Center. https://green-bri.org/countries-of-the-belt-and-road-initiative-bri/
Nedopil, C. (2022a). Green finance for soft power: An analysis of China's green policy signals and investments in the Belt and Road Initiative. *Environmental Policy and Governance*, *32*(2), 85–97. https://doi.org/10.1002/eet.1965
Nedopil, C. (2022b). *China Belt and Road Initiative (BRI) Investment Report H1 2022 (FISF Green Finance & Development Center Brief)*. FISF Green Finance & Development Center. https://doi.org/10.13140/RG.2.2.23455.84645 https://greenfdc.org/china-belt-and-road-initiative-bri-investment-report-h1-2022/
Nedopil, C., DeBoer, D., Fan, D., & Tang, Y. (2021). *What China's new guidelines on 'green development' mean for the Belt and Road*. China Dialogue. https://chinadialogue.net/en/business/what-chinas-new-guidelines-on-green-development-mean-for-the-belt-and-road/
Nedopil, C., Wang, Y., Xie, W., DeBoer, D., Liu, S., Chen, X., Li, Y., Zhu, Y., Lan, Y., Li, P., & Zhao, H. (2020). *Green Development Guidance for BRI Projects Baseline Study Report*. International Belt and Road Initiative Green Development Coalition (BRIGC).
Nedopil, C., & Xu, Q. (2020). *Technical Report on SDG Finance taxonomy (China)*. UNDP China and Chinese Ministry of Commerce.
Peng, Q., Wang, F., & Gang, W. (2019). *Exclusive: China to Combine Africa, Latin America Investment Funds - Caixin Global*. Caixin Global. https://www.caixinglobal.com/2019-02-19/exclusive-china-to-combine-africa-latin-america-investment-funds-101381418.html
Qi, J. (2016). *Silk Road Fund Chairwoman Jin Qi outlines funding priorities*. ChinaGoAbroad. http://www.chinagoabroad.com/en/article/20505
Refinitiv. (2020). *Here are the proposed coal power plants China is bankrolling around the world*. Quartz. https://qz.com/1760615/china-quits-coal-at-home-but-promotes-the-fossil-fuel-in-developing-countries/
Ren, X. (2017). The G20: Emerging Chinese leadership in global governance? *Global Policy*, *8*(4), 433–442. https://doi.org/10.1111/1758-5899.12504
Reuters. (2021). *China's April foreign exchange reserves rise to $3.2 trillion*. Reuters. https://www.reuters.com/world/china/chinas-april-foreign-exchange-reserves-rise-32-trillion-2021-05-07/
SAIS. (2021). *China Africa Research Initiative*. John Hopkins SAIS China Africa Research Initiative. http://www.sais-cari.org/data
Scissors, D. (2021). *China's Coming Global Investment Recovery: How Far Will it Go?* American Enterprise Institute.. https://www.aei.org/wp-content/uploads/2021/01/China%E2%80%99s-Coming-Global-Investment-Recovery.pdf?x91208
Sen, S. (2010). Sovereign wealth funds: An examination of the rationale. *American Review of Political Economy*, *8*(1), 44. https://doi.org/10.38024/arpe.114
Sheldrick, A., & Obayashi, Y. (2020). *Japan tightens rules on support for overseas coal-fired plants*. Reuters. https://www.reuters.com/article/us-coal-japan-finance-idUSKBN24A0CH
Shen, W. (2020). China's role in Africa's energy transition: A critical review of its intensity, institutions, and impacts. *Energy Research & Social Science*, *68*, 101578. https://doi.org/10.1016/j.erss.2020.101578
Shen, W., & Power, M. (2017). Africa and the export of China's clean energy revolution. *Third World Quarterly*, *38*(3), 678–697. https://doi.org/10.1080/01436597.2016.1199262
Shullman, D. O. (2019). *Protect the Party: China's growing influence in the developing world*. Brookings. https://www.brookings.edu/articles/protect-the-party-chinas-growing-influence-in-the-developing-world/
SRF. (2021). *Social Responsibility*. Silk Road Fund. http://www.silkroadfund.com.cn/enweb/23775/23782/index.html
UN PRI. (2021). *Search|PRI*. UN Principles for Responsible Investment. https://www.unpri.org/searchresults?qkeyword=&PageSize=10¶metrics=WVSECTIONCODE%7C1018&cmd=AddPm&val=WVFACET3%7C137
Voituriez, T., Yao, W., & Larsen, M. L. (2019). Revising the 'host country standard' principle: A step for China to align its overseas investment with the Paris Agreement. *Climate Policy*, *19*(10), 1205–1210. https://doi.org/10.1080/14693062.2019.1650702
Wang, H. (2017). New multilateral development banks: Opportunities and challenges for global governance. *Global Policy*, *8*(1), 113–118. https://doi.org/10.1111/1758-5899.12396
Wang, Y., & Xu, H. (2020). Green Finance International Cooperation (绿色金融国际合作). In *China Green Finance Report 2020 (王遥&徐洪峰:中国绿色金融研究报告2020)*. China Finance Publishing House (中国金融出版社).
Wong, S. (2018). *Investec inks Chinese partnership to invest in Africa*. CityWire Asia. http://citywireasia.com/news/investec-inks-chinese-partnership-to-invest-in-africa/a1152943

Zhou, L., Gilbert, S., Wang, Y., Cabré, M. M., & Gallagher, K. P. (2019). *Moving the Green Belt and Road Initiative: From Words to Actions*. World Resources Institute and Boston University.

Zhou, K., & Li, Y. (2019). Carbon finance and carbon market in China: Progress and challenges. *Journal of Cleaner Production*, *214*, 536–549. https://doi.org/10.1016/j.jclepro.2018.12.298

How to cite this article: Larsen, M. L., Voituriez, T., & Nedopil, C. (2023). Chinese overseas development funds: An assessment of their sustainability approaches. *Journal of International Development*, 1–24. https://doi.org/10.1002/jid.3778