

Puzzling Partnerships: Overseas Infrastructure Development by Chinese State-Owned Enterprises and Humanitarian Organizations

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Abstract

Chinese state-owned enterprises (SOEs) are now working with humanitarian organizations to develop infrastructure abroad. This emerging phenomenon is puzzling: when, where, and why do Chinese SOEs, best known for constructing massive overseas infrastructure projects for commercial and political gain, execute smaller, lower-profile humanitarian projects? Similarly, why would humanitarian organizations—often with minimal experience in infrastructure contracting—select partners criticized for lack of emphasis on the international standards and best practices that they seek to promote? We address these questions through qualitative case studies of Chinese SOE-humanitarian organization collaboration in the Democratic Republic of Congo, Nigeria, and the Republic of Congo. These cases suggest that such partnerships are more likely when a humanitarian organization has previous experience working in China or with Chinese actors, when Chinese SOEs aim to enter new markets, or when these firms operate in dangerous or politically unstable environments. This study contributes to scholarship on China's evolving role in international development by providing the first empirical analysis of Chinese SOE-humanitarian organization partnerships.

Keywords State-owned enterprises \cdot Humanitarian organizations \cdot International development \cdot China \cdot Africa



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Introduction

The 40,000-MW Grand Inga Dam along the Congo River in the western Democratic Republic of Congo (DRC) will be one the world's largest dam systems if completed (Bax and Kavanaugh 2020). Construction of the dam, power stations, and associated transmission lines across six phases would cost approximately \$80 billion and generate power equivalent to 40% of Africa's electricity demand (Currie and Cropley 2021). A long-planned—and long-delayed—third phase, known as Inga III, would cost \$14 billion. The project remains a priority for the DRC government, even though numerous civil society organizations have raised concerns about corruption and the proposed dam's environmental and social effects (International Rivers 2021). DRC leaders are in ongoing negotiations to finalize a consortium potentially including multiple Chinese state-owned enterprises (SOEs): China Three Gorges Corporation, Sinohydro, and others (Holland and Burton 2021).

Chinese SOEs are often associated with "megaprojects": multi-billion dollar projects like the Grand Inga Dam (Flyvbjerg et al. 2003, 1). Their commercial involvement in the global infrastructure industry has grown steadily since the 1980s. Two major policy initiatives—the "going out" strategy and Belt and Road Initiative (BRI), formally adopted in 2002 and 2013, respectively—have further accelerated their global expansion (Ye 2020; Zhang 2020). Completed megaprojects—such as China Road and Bridge Corporation (CRBC)'s Standard Gauge Rail in Kenya and China Harbour's Hambantota Port in Sri Lanka—elevate Chinese SOEs' international profile. Megaprojects also position SOEs as important players in China's international relations (Gill and Reilly 2007; Lee 2017).

Yet on the eastern side of the DRC, some 1700 km away from Grand Inga, the Chinese SOEs Sinohydro and China Geo-engineering Corporation (CGC) are building a much smaller and less flashy water project. In Goma and Bukavu, the capital cities of the country's North and South Kivu provinces, the two firms have been constructing water taps and treatment facilities for the IMAGINE Program, a multi-year initiative to improve water access, sanitation, and hygiene and thereby reduce child mortality (Mercy Corps 2019). IMAGINE is a flagship project for the international non-governmental organization (INGO) Mercy Corps and the project's funder, the UK's Foreign, Commonwealth, and Development Office (FCDO).⁵ Although the project is critical for Mercy Corps, with a contract valued at £5.5

⁵ The FCDO was the Department for International Development (DFID) prior to September 2020.



¹ The first two phases, commissioned in 1972 and 1982, were notoriously unsuccessful and resulted in mass displacement, corruption, and debt stress (International Rivers 2021).

² Final concession and consortium member details remain contested and uncertain.

³ It is also an example of what Strange (forthcoming) considers a "high-profile development project": a project financed by foreign actors that is both highly visible and nationally salient for the host country.

⁴ Jiang Zemin formally inaugurated "going out" as a "new stage of China's reform and opening movement" at the 16th National Party Congress in November 2002. Jiang Zemin, Report to the National Party Congress, November 8, 2002. Xi Jinping introduced the BRI during a visit to Kazakhstan in September 2013. "Chronology of China's Belt and Road Initiative," Xinhua, March 28, 2015.

million (approximately \$7.6 million), IMAGINE is merely a fraction of Sinohydro's bottom line in DRC and Africa overall.⁶

Compared to megaprojects like Inga III, Chinese SOEs' motivation for involvement in projects like IMAGINE is less clear. As a relatively small-scale, localized infrastructure project, IMAGINE is unlikely to be highly lucrative or serve as a springboard to national or regional commercial expansion. The operating environment is technically challenging and potentially dangerous, due to glass-like volcanic soil, recurrent volcanic eruptions, the continued Ebola outbreak, and ongoing deadly political unrest. IMAGINE is not branded as a Chinese-led development project, nor is it a megaproject with high levels of national or international media coverage. Neither profits nor China's political interests appear to strongly drive the two Chinese contractors' participation.

Mercy Corps' decision to partner with Chinese SOEs appears equally puzzling. Principles like humanity, neutrality, impartiality, and independence motivate humanitarian organizations like Mercy Corps. Such organizations and their funders strive to uphold stringent ethical, labor, and environmental standards in their overseas projects. These standards are internally set⁸ and often subject to external scrutiny. Chinese SOEs have a reputation among policymakers and analysts for their ability to build quickly, not only reducing bureaucratic red tape but also potentially neglecting social, environmental, and other safeguards (Mwase and Yang 2012). In the DRC, for example, the Sicomines copper and cobalt mining agreement involving Chinese SOEs has suffered delays, inadequate social and environmental impact assessments, and reports of poor infrastructure quality (Maiza-Larrarte and Claudio-Quiroga 2019). Yet despite apparent incentive misalignment, Chinese SOEs and humanitarian organizations are now collaborating to develop infrastructure abroad.

When, where, and why are Chinese SOEs partnering with humanitarian organizations on overseas infrastructure development? We address these questions using three qualitative case studies: (1) Sinohydro and China Geo-engineering Corporation's work with Mercy Corps on the IMAGINE Program in the DRC; (2) China Geo-engineering Corporation and the ICRC's partnership on the Alhamduri Urban Water Works in Nigeria; and (3) Weihai International Economic & Technical

⁹ For example, many humanitarian organizations have committed to adhere to global standards through third-party accountability watchdogs like Accountable Now (https://accountablenow.org/) or EthicsPoint (https://www.oxfamamerica.org/about/contact-us/ethics-violations-fraud-or-other-complaints/).



⁶ The 2019 annual report of PowerChina's flagship publicly listed subsidiary reported total contract values of approximately 15.6 billion in eastern and southern Africa, \$10.5 billion in central and western Africa, and \$13.6 billion in the Middle East and northern Africa. 《中国电力建设股份有限公司 2019 年年度报告》 [China Power Construction Company, Limited 2019 Annual Report], http://www.powerchina.cn/art/2020/4/24/art_7640_863040.html.

⁷ Djafar Al Katanty and Hereward Holland, "Volcano Erupts in Eastern Congo, Thousands Flee Goma," Reuters, May 22, 2021; United Nations Office of the High Commissioner for Human Rights, "UN Human Rights Chief and Special Adviser on Prevention of Genocide Disturbed by Increase in Violence and Hate Speech in Eastern DRC," June 20, 2022.

⁸ See, for example, the internal policies of international NGOs like Mercy Corps (https://www.mercy corps.org/who-we-are/ethics-policies) or Oxfam (https://www.oxfam.org/en/what-we-do/about/safeg uarding).

Cooperative (WIETC)'s collaboration with the World Food Programme on a cassava plant in the Republic of Congo. Our research draws on 36 interviews conducted between December 2019 and August 2021 with respondents in the USA, Canada, China, the DRC, the Republic of Congo, Nigeria, Kenya, the UK, France, and Switzerland.

Analysis of these cases suggests that several conditions make Chinese SOE-humanitarian organization partnerships more likely. Humanitarian organizations appear more likely to collaborate with Chinese SOEs if they have previous experience working in China and/or with Chinese actors. Chinese SOEs may also pursue projects with humanitarian organizations to enter new national markets or sectors within existing ones. Dangerous or politically unstable environments can also motivate Chinese SOEs to look for humanitarian organization partners. As Chinese SOEs confront scandals and pushback abroad in countries from Myanmar to Peru to Zambia, humanitarian organizations can help manage risk and navigate operational challenges by providing strong local knowledge, networks, and experience.

The emerging phenomenon of Chinese SOE-humanitarian organization partnerships is modest in scale but worthy of scholarly and policy attention. Overseas infrastructure projects are highly consequential for the millions of people whose lives they affect daily. They also offer important insight into how Chinese SOEs and humanitarian organizations are changing their strategies over time. Chinese SOEs are expanding beyond mega-projects to work with a wider array of international and domestic actors on smaller-scale projects abroad. Some humanitarian organizations are now also pursuing infrastructure development as a more direct approach to humanitarianism. Understanding how Chinese SOEs and humanitarian organizations interact enables more nuanced assessment of the potential externalities of China's overseas investment impact and of values-driven humanitarian organizations' ability to moderate it.

This paper proceeds as follows. First, we introduce Chinese SOEs and humanitarian organizations and outline their interests and incentives for collaboration on overseas infrastructure development. Then, we introduce our argument and describe the study's case selection, data and methods. Next, we present our three case studies and discuss our findings, including the potential advantages and challenges of such partnerships. We conclude by considering implications for international development and directions for future research.

Puzzling Partnerships: Chinese SOE and Humanitarian Organization Incentives and Interests

Chinese SOEs

State-owned enterprises (SOEs) are companies owned in whole or part by central or sub-national governments. In China, the State-owned Assets Supervision and Administration Commission (SASAC), a special commission of the State Council, administers a portfolio of 97 SOEs owned by the central government ("central SOEs" hereafter); it also manages state-owned assets below the central level through



local SASACs.¹⁰ In addition to the largest and best-known central SOEs, such as China Communications and Construction Corporation, Sinohydro, and China Geo-Engineering Corporation, provincial SOEs like Weihai International Economic & Technical Cooperative (WIETC) and Shenzhen Energy have also become major global industry players.

Today's Chinese SOEs have operated in Africa and other developing regions for decades, albeit not initially as commercial entities. After China's government under Mao Zedong began providing foreign aid in the early 1950s, its revolutionary approach to financing aid and diplomacy in newly independent countries across Africa and Asia peaked during the 1960s and early 1970s (Strange 2019). China's government had nearly 100 turn-key projects under construction worldwide in 1972, and it had committed aid to 29 African countries by 1973 (Brautigam 2011, 41). Most of this aid was highly concessional in nature and focused primarily on political rather than economic considerations. In the 1980s, Deng Xiaoping reformed the foreign aid bureaucracy to focus China's overseas aid on economic development. China launched a Contract Responsibility Mechanism under which newly formed subsidiary enterprises of central and provincial government institutions—which would eventually become SOEs-became implementing parties for Chinese-financed aid projects (Bach et al. 2017, 39-42). Although these projects were not initially designed to be profit-making, together with Deng's reforms, they laid the groundwork for SOEs to become commercial contractors in the 1980s.

Since then, Chinese SOEs have evolved into major global economic actors. Across the developing world, their infrastructure contracting, greenfield investments, and mergers and acquisitions (M&A), supported by Chinese policy bank financing, have increased exponentially. Available data suggests that China's government has committed hundreds of billions in development finance worldwide between 2000 and 2017, much of which has been financed with loans issued by China's two major policy banks, China Eximbank and China Development Bank (Custer et al. 2021; Dreher et al. 2022). In 2016, China's outward foreign direct investment similarly reached a historic high of approximately \$196 billion (Statista 2020). Chinese firms are also increasingly active in global markets, accounting for approximately 16% of all global M&A activity by value in 2017 (Gordon and Milhaupt 2019, 209).

SOEs' international infrastructure business has strategic value for China's government both at home and abroad. It furthers multiple state policy goals: solving domestic challenges of excess industrial capacity and surplus labor, developing external sources of demand, exporting technologies like high-speed railways and ultra-high voltage power grids, and supporting Beijing's broader push to move up global value chains in high-tech and strategic sectors (Zhang 2021). SOE participation and performance on large overseas infrastructure projects is inherently political, because these works are often linchpins in China's bilateral relations with foreign governments (Mohan and Tan-Mullins 2019; Ye 2019; Ho 2020). Host countries

Official list of the 97 central SOEs that SASAC manages (in Chinese): http://www.sasac.gov.cn/n4422 011/n14158800/n14158998/c14159097/content.html.



and other international actors also frequently scrutinize such projects as indicators about the nature of China's economic intentions and actions abroad.

At the project level, Chinese SOEs formally adhere to international governance and health, safety, and environment (HSE) standards. However, they also seek to make profits—even if not necessarily to maximize those profits—and their contractor status decreases their stakes in long-term project operations and local impact (Lee 2017). SOEs aim to serve domestic Chinese development by achieving commercial success while simultaneously responding to the state's policies and priorities. Chinese SOEs must meet annual construction contract targets set by the government and support strategic state aims like maintaining employment and exporting indigenously developed technologies. Given these factors, SOEs should be most interested in major infrastructure projects that can enhance their own commercial expansion while also serving larger Chinese policy goals.

Humanitarian Organizations

Value-driven international humanitarian organizations differ starkly from politically and profit-motivated Chinese SOEs. Humanitarian organizations primarily consist of inter-governmental organizations (IGOs) such as the World Food Programme (WFP) and UN International Children's Emergency Fund (UNICEF), INGOs such as Mercy Corps and Oxfam, and non-governmental humanitarian agencies like the International Red Cross and Red Crescent Movement. These actors subscribe to the four basic humanitarian principles of impartiality, neutrality, independence, and humanity derived from the Fundamental Principles of the Red Cross and Red Crescent Movement proclaimed in Vienna in 1965. Two UN General Assembly resolutions (46/182 and 58/114) have formally adopted these four core principles, and the UN has tasked its Office for the Coordination of Humanitarian Affairs (OCHA) with leading international humanitarian response to complex emergencies and natural disasters. 12

The humanitarian space is a site of "principled aid" (Holhorst and Jansen 2010) and part of a broader postwar, ideological movement to realize moral and ethical norm-driven global development (Lumsdaine 1993). In addition to the four basic humanitarian principles detailed above, many humanitarian organizations have developed international codes of conduct and guidelines for best practices.¹³

¹³ For example, the Good Humanitarian Donorship (GHD) Initiative establishes 24 principles and good practices for humanitarian donors to guide assistance and create greater accountability across its 42 members. For all 24 principles, see: https://www.ghdinitiative.org/ghd/gns/principles-good-practice-of-ghd/principles-good-practice-ghd.html.



¹¹ For more information on the fundamental principles, see: https://www.icrc.org/en/fundamental-principles.

¹² OCHA, "OCHA on Message: Humanitarian Principles," 2012, https://www.unocha.org/sites/dms/Documents/OOM-humanitarianprinciples_eng_June12.pdf.

Individual humanitarian organizations also adhere to their own strict standards and codes of conduct.¹⁴

Humanitarian organizations work worldwide with international donor support, particularly in places experiencing disasters, complex emergencies, and protracted humanitarian crises. In 2019, before the COVID-19 pandemic began, the top destinations for international humanitarian assistance included Yemen, Syria, Turkey, and South Sudan. In 2019, most of the \$24.81 billion in international humanitarian aid was channeled through UN agencies, such as the WFP, UNHCR, and UNICEF, followed by international NGOs like Save the Children and Mercy Corps. Together, UN agencies and INGOs are thus two of the most important global distributors of humanitarian assistance. Top bilateral donors include the USA, Germany, the UK, the European Commission, and Saudi Arabia. In sum, a small number of countries are the primary donors supporting the work of humanitarian organizations across the globe.

The Chinese government has historically given minimal support to international humanitarian organizations' overseas work. China has allocated some foreign aid to poverty alleviation, a key factor in many humanitarian crises, but this remains a very small share of its overall development finance (Hirono 2018). When the Chinese government does give humanitarian aid, it prefers to use a bilateral approach. In 2018, China channeled more than 60% of its humanitarian assistance directly to national governments, 37% through UN agencies, and none through INGOs. Moreover, China's humanitarian assistance typically follows major disasters, like the 2014 Ebola crisis or the 2015 Nepal earthquake, yielding fluctuating annual levels of humanitarian spending (Hirono 2018). In short, the Chinese government provides limited amounts of humanitarian aid, distributes it largely through bilateral channels and on an ad hoc basis in response to short-term emergencies, and does not usually involve Chinese SOEs. Unlike commercial infrastructure projects, Chinese-financed humanitarian projects have thus not been a springboard for Chinese SOEs in international development.

For their part, humanitarian organizations rarely partner directly with Chinese companies—or firms of any nationality—on infrastructure development abroad. While studies have increasingly documented a role for business in humanitarian supply chains and logistics, humanitarian organization-foreign company partnerships to develop overseas infrastructure works remain infrequent (Nurmala et al. 2017). This makes the collaboration now emerging between leading humanitarian organizations (both INGOs and IGOs) and Chinese SOEs all the more novel and surprising.

¹⁶ By comparison, UN agencies and INGOs were the top two recipients of U.S. humanitarian aid that same year, receiving 66% and 17%, respectively. These figures were calculated by the authors using 2018 global OCHA FTS data: https://fts.unocha.org/global-funding/countries/2018



¹⁴ This includes the Code of Conduct, which the ICRC and eight other sponsors established in 1994 to provide guidelines for all NGOs involved in humanitarian assistance (ICRC 1994). As an additional example, see the WFP's Code of Conduct: https://www.wfp.org/publications/wfp-code-conduct.

¹⁵ This data is drawn from 2019 OCHA FTS database: https://fts.unocha.org/global-funding/overview/2019.

Local Actors

Local actors, while not the main focus of this study, are also important players in Chinese SOE-humanitarian organization partnerships on infrastructure projects abroad. These collaborations do not occur in a vacuum—they are embedded within local geographic, historical, and social contexts. Humanitarian organizations have long endeavored to engage local governments, civil society organizations, and communities near projects (Hickey and Mohan 2004). Chinese infrastructure contractors operating abroad have increasingly emphasized corporate social responsibility (CSR) activities and local engagement, including with civil society organizations and community members (Tan Mullins 2020). However, firms' actions do not always match their rhetoric; overall, their efforts remain significantly less than those of humanitarian organizations.

Local actors affect the short-term success and the long-term viability of infrastructure projects involving Chinese SOEs and humanitarian organizations. Numerous studies show how host country governments, politicians, civil society organizations, and individuals at both local and national levels shape project initiation, terms, effects, and reception (Leslie 2016; Soulé-Kohndou 2018; Tritto 2020; Wang 2022). Even when local actors are initially excluded from high-level negotiations, subnational governments, civil society organizations, and local communities can influence implementation—in some cases even causing infrastructure projects to be halted or cancelled altogether (Kirchherr et al. 2017; Lampton et al. 2020). Recent analysis suggests that local citizens may view projects involving international actors with distinct reputations and comparative advantages, such as Chinese SOEs and INGOs, as complementary and therefore more positively than single-actor projects (Strange, Plantan, and Leutert 2022).

Conditions

Chinese SOEs and humanitarian appear to have weak, if any, incentives to partner on overseas infrastructure development. Where, when, and why are these actors working jointly to build infrastructure projects abroad? We argue that three conditions may help to explain the emergence of partnerships between humanitarian organizations and Chinese SOEs. Specifically, these include humanitarian organizations' track records working in China or with Chinese actors, SOEs' market presence in host countries, and host country political instability.

First, we expect that these partnerships are more likely when a humanitarian organization has an established presence in China or a record of working with Chinese actors. A track record of engaging Chinese actors within China helps humanitarian organizations to extend these relationships beyond China's borders in multiple ways. Although the host country office of a humanitarian organization typically manages the infrastructure contractor, China country offices can still mitigate language or cultural barriers remotely or through staff visits. Their multinational and bilingual staff can also help to identify collaboration opportunities. As China itself has rapidly developed, many major INGOs and IGOs have reimagined their China



country offices to focus on working with Chinese actors in third countries (Farid and Li 2021). For this reason, we expect to find evidence of growing ties between humanitarian organizations' China offices and offices in other countries on how to engage with Chinese actors, including SOE contractors.

Second, from Chinese SOEs' perspective, partnering with humanitarian organizations may be attractive if it facilitates market access or provides reputational benefits. Although infrastructure contracts with humanitarian organizations are typically far smaller than those for other types of project owners, they can still aid Chinese SOEs to establish a larger market presence in the future. Smaller projects can help firms to grow their business nationally or regionally. They can also signal companies' ability to operate in new business areas in existing markets. "Investing up," by voluntarily adhering to the stricter international standards associated with humanitarian organization partnerships, may also provide a reputational benefit for Chinese SOEs that could help secure other, larger contracts in a given industry, country, or region (Zeng and Eastin 2012). This is because working with INGOs or IGOs requires companies to adhere to international best practices related to environmental or labor safeguards. The value of such reputational benefits to a given firm may vary depending on its international business experience and project portfolio.¹⁷ Thus, we expect that Chinese firms will be more interested in working with humanitarian organizations if a project would aid market access or confer reputational benefits.

A third factor that may encourage such partnerships is host country instability. For SOEs, partnering with humanitarian organizations may be especially valuable in dangerous or politically unstable host country contexts. Late arrival to international markets and pursuit of natural resources have pushed many SOEs into riskier environments. Over one quarter of China's overseas direct investment is located in recipient countries with high levels of political risk (Zou and Jones 2020, 93). After highprofile missteps, such as the Myitsone Dam in Myanmar and the Kamchay Dam in Cambodia, Chinese companies are increasingly willing to work with non-state actors to mitigate risk (Maurin and Yeophantong 2013; Zou and Jones 2020; Yeophantong 2020). 18 Working directly with humanitarian organizations, which often have rich operational experience and knowledge of these contexts, as well as strong local networks, can provide greater assurance that projects will proceed despite high political risk. These same factors may also increase the likelihood that humanitarian organizations will partner with Chinese SOEs for these projects, since other foreign firms may be less willing to bid and host country companies may lack sufficient capacity or technical expertise.

¹⁸ More generally, recent evidence suggests that Chinese-financed infrastructure and other development projects tend to increase the probability of civil protests in host countries (Iacoella et al. 2021).



¹⁷ Such reputational benefits are likely to be of greater value to Chinese SOEs that have less international experience and few if any projects abroad. Expressing the perspective of a large central SOE with an extensive record of international projects, a Sinohydro representative stated: "We don't [need to] partner with INGOs to prove that we can meet international standards. Our cooperation with the World Bank proves that we have reached international standards." In-person interview, Sinohydro Investment Department representative, Beijing, December 2019.

Case Selection, Data, and Methods

We analyze three cases of Chinese SOE collaboration with humanitarian organizations on overseas infrastructure projects. Specifically, they include the following: (1) Sinohydro and China Geo-engineering Corporation's work with Mercy Corps on the IMAGINE Program in the DRC; (2) China Geo-engineering Corporation and the International Committee of the Red Cross's partnership on the Alhamduri Urban Water Works in Nigeria; and (3) Weihai International Economic and Technical Cooperative (WIETC)'s collaboration with the World Food Programme on a cassava plant in the Republic of Congo. Figure 1 below illustrates the location of the three cases.

We select these three cases because they are the only instances to date of direct overseas infrastructure cooperation between humanitarian organizations and Chinese SOEs that we identified. Our case selection is thus a census of the universe of all known cases, rather than a sample drawn from a larger population. In a parallel study, we systematically collected data on all publicly known instances of INGO cooperation with Chinese actors in developing countries: out of a total of 133 projects involving collaborations with Chinese actors, eight projects involved Chinese SOEs and only three—each of which is examined in this article—were direct partnerships for infrastructure project implementation (Plantan, Leutert, and Strange 2022). 19 This larger data collection exercise offers reassurance that we have identified the vast majority—or even all—current cases of this phenomenon. However, we cannot rule out the possibility of other additional cases, particularly those that have begun since we completed data collection in 2021 or those involving other actor types such as IGOs. The three cases analyzed here constitute a plausibility probe providing initial evidence for an emerging phenomenon of Chinese SOE-humanitarian organization partnerships on overseas infrastructure development.

All three cases involve humanitarian organizations that are developing in-country infrastructure to achieve their missions. From clean water infrastructure to domestic food production, each case demonstrates how humanitarian work, driven by values-based and altruistic motivations, can include opportunities to work jointly with Chinese SOEs to build or facilitate on-the-ground projects. The cases share several key features: (1) involvement of INGOs or IGOs operating in the humanitarian space; (2) collaboration with Chinese SOEs for infrastructure development critical to their mandates; (3) location in sub-Saharan Africa; (4) location in fragile states. Table 1 compares the three cases.

These cases' shared attributes may provide insight about the external validity of our findings and where similar projects might emerge in the future. All three cases are located in underdeveloped, fragile states in sub-Saharan Africa. According to World Bank classifications, Nigeria and the Republic of Congo are lower-middle income countries and the DRC is a low-income country. All three countries have

¹⁹ A fourth case of a Chinese SOE implementing an infrastructure project was excluded from the analysis because in that instance the Chinese SOE was part of a larger consortium with other foreign companies.



historically experienced high levels of civil conflict and instability, and the infrastructure projects analyzed in the DRC (Eastern DRC) and Nigeria (northeastern Nigeria) are situated in particularly volatile subnational regions. These shared case attributes could be potential scope conditions; they provide suggestive evidence that humanitarian organizations and Chinese SOEs might find it more valuable to cooperate on infrastructure projects in underdeveloped, conflict-prone settings. Furthermore, large humanitarian organizations with resources sufficient to support infrastructure contracts have spearheaded these projects. Smaller humanitarian organizations may not have comparable capacity, and thus, our findings are potentially less generalizable to those cases. Additional research is needed to track this phenomenon over time and to further assess our findings' external validity in other geographic and cooperative contexts.

Our research draws on 36 interviews conducted between December 2019 and August 2021 with key stakeholders in the USA, Canada, China, the DRC, the Republic of Congo, Nigeria, Kenya, the UK, France, and Switzerland. We identified respondents through snowball sampling. One author conducted interviews with China-based individuals in-person in December 2019. After the outbreak of the COVID-19 pandemic, the authors did subsequent interviews remotely as a team using Zoom, Skype, WeChat, and other online platforms. The pandemic disrupted the authors' plans to conduct in-person fieldwork in China, the DRC, and Rwanda in 2020 and 2021. This constrained our ability to collect data and triangulate inferences by interviewing local workers and community members. However, we have sought to mitigate this limitation by integrating additional qualitative data from online research and secondary sources. We used all of the data collected to analyze the projects, including the advantages and disadvantages of collaboration as each stakeholder perceived them.

Case Studies

Mercy Corps and the IMAGINE Program in the DRC

Mercy Corps' IMAGINE Program in the Democratic Republic of Congo (DRC) is one example of Chinese SOE-humanitarian organization cooperation on overseas infrastructure development. Mercy Corps is an INGO headquartered in the USA that works in more than 40 countries worldwide to combat poverty, disaster, violent conflict, and climate change. The Mercy Corps DRC program, the organization's largest country program, employs nearly 500 national and international staff.²¹ The DRC program conducts several multi-year and shorter-term projects focused on clean

²¹ Remote interview with Whitney Elmer, Mercy Corps DRC Country Director, August 14, 2020.



²⁰ Human subjects research protocols for this study have been approved by the institutional review boards of Harvard University (IRB19-1937; pertains to data collection through July 31, 2020); Indiana University (1,911,897,594; pertains to data collection beginning November 22, 2019); Stetson University (Protocol #856; pertains to data collection beginning August 11, 2020); and the University of Hong Kong (EA200060; pertains to data collection beginning August 14, 2020).

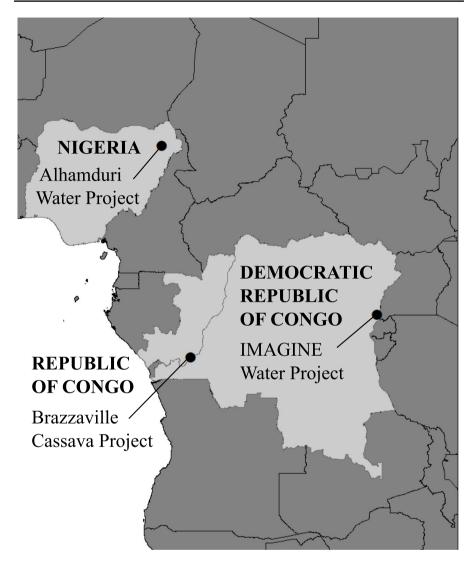


Fig. 1 Map of project locations

water access and emergency humanitarian response. Rebuilding the physical infrastructure for public services like water and sanitation is an urgent imperative: only 52% of the population in the DRC has access to an improved water source, and only 29% have access to improved sanitation facilities—even though the country has over 50% of Africa's water reserves.²²

²² UNICEF, "Democratic Republic of Congo, 'What We Do;' 'Water Sanitation and Hygiene'", https://www.unicef.org/drcongo/en/what-we-do/water-sanitation-and-hygiene.



Table 1 Case comparison

Location Democratic Repul	Case 1. IMAGINE Program	Case 2: Case 3: Alhamduri Urban Water Works Cassava plant	Case 3: Cassava plant
•	Democratic Republic of Congo	Nigeria	Republic of Congo
	=109.4	FSI score = 97.3 Rank = 14 th	FSI score = 92.1 Rank = 25 th
Dysfunctional	nal	Low-capacity	Low-capacity
Project type Water infrastructure	istructure	Water infrastructure	Cassava flour plant
Humanitarian organization Mercy Corps	sd	ICRC	WFP
Funder UK Foreign, (FCDO) [1 Developm	UK Foreign, Commonwealth and Development Office (FCDO) [formerly the Department for International Development [DFID])	ICRC	Zhengwei Technique, subsidiary of Weihai International Economic and Technical Cooperative (WIETC)**
Chinese SOE(s) Sinohydro; (Sinohydro; China Geo-engineering Corporation (CGC) CGC	CGC	Zhengwei Technique**
State ownership type Central SOEs	Es	Central SOE	Local SOE
Cooperation type Direct contracting	racting	Direct contracting	Facilitation
Contract value £9,500,000 (£9,500,000 (\$13,000,000)	\$3,000,000	No formal engagement, no contract value
Project duration 2013-present	ent	2017–2019	2019-present

*2020 Fragile States Index data (https://fragilestatesindex.org/country-data/); classifications based on Ziaja et al. (2019)

^{**}This company is in talks for the project, but the final plans and funding structure have not been confirmed as of late 2021.



The IMAGINE program is a multi-year project funded by the FCDO of the UK to improve water access, sanitation, and hygiene and thereby reduce child mortality in the eastern DRC. Established through collaboration with REGIDESO, the national state-owned water utility, it is the first public—private partnership in the country's water sector. This status and IMAGINE's potential public health impact make it a priority initiative for Mercy Corps. As the DRC Country Director Whitney Elmer explained: "It's a program that's well known within [Mercy Corps] and one that has [the] attention of senior leadership even outside the country team." The IMAGINE Program primarily involves the construction of water tap and treatment facilities in the cities of Goma and Bukavu and community hygiene promotion activities. Construction is still underway and is expected to be completed in 2022.

Mercy Corps recruited companies to build IMAGINE Program infrastructure through a competitive international tender. In addition to issuing a call for expressions of interest, Mercy Corps staff traveled to Kenya and Uganda to promote the project and reach out to potential bidders. After a pre-qualification process in which Mercy Corps provided the engineering design for the project, companies from multiple countries submitted bids. Ultimately, Mercy Corps awarded contracts to two Chinese SOEs: Sinohydro and China Geo-Engineering Corporation (CGC). Sinohydro was responsible for building the infrastructure in Goma—two water reservoirs on Mount Goma and in Bushara—and rehabilitating and installing distribution pipes and other infrastructure linking the reservoirs with tap stands in neighborhoods. CGC was tasked with the project facilities in Bukavu, which included the additional work of rehabilitating the REGIDESO water treatment plant in Murhundu.

Mercy Corps cited several reasons for awarding contracts to the two Chinese SOEs. First, they met or exceeded the bid selection criteria. "Our selection criteria [were] pretty much driven by administrative qualifications, technical qualifications, and price," said Elmer. While Mercy Corps did not deliberately target Chinese companies, they expected them to submit bids because of their established presence in the global infrastructure industry and African markets in particular. As Jeff Bosa explained: "They have the knowledge of the region. They have the financial muscle and resources." Among all the different stakeholders involved in the bidding process—including Mercy Corps' staff in the DRC, headquarters employees in Portland, Oregon, its legal team, REGIDESO and other DRC government representatives—there was a consensus to select the two Chinese contractors.

Sinohydro and CGC, both companies owned by China's central government, signed contracts with Mercy Corps in 2018 to construct the IMAGINE Program infrastructure. ²⁶ The first, Sinohydro, is the name of a former central SOE that was

d'améliorer l'accès à l'eau pour plus de 1 million d'habitants de Goma et Bukavu" [Press release on the Construction of water infrastructure to improve access to water for more than 1 million inhabitants of Goma and Bukavu], November 23, 2018.



²³ Ibid.

²⁴ Remote interview with Mort Anoushiravani, Mercy Corps Infrastructure Director, January 27, 2020.

²⁵ Remote interview with Jeff Bosa, Process Analysis Specialist at Mercy Corps DRC, July 30, 2020.

Mercy Corps, "Communiqué de presse sur la Construction d'infrastructures d'eau afin.

merged with another central SOE in 2011 to create a new conglomerate—PowerChina.²⁷ Although the company is popularly known as "Sinohydro" in international markets, the legal entity partnering with Mercy Corps on the IMAGINE Program is PowerChina International, PowerChina's flagship subsidiary. China Geo-Engineering Corporation (CGC) is also a Chinese central SOE.²⁸ First established in 1982, today, it is a comprehensive contractor with business activities ranging from the construction of water works and transportation infrastructure to mineral surveying and mining.

Multiple factors motivated Sinohydro and CGC to submit bids for the Mercy Corps contracts. First, although the contracts were much smaller than the companies' other international projects, the IMAGINE Program helped them expand into new markets and business areas. The IMAGINE Program was CGC's first project in the DRC, and it was Sinohydro's first project in the country's water sector. In addition, the SOEs viewed INGOs and IGOs as reliable partners. As a representative of Sinohydro's West Africa department explained: "We care not only about the project, but also about the employer. NGOs we think are good employers. Why do we think so? One important way in which we judge potential projects is the funding issue. How will we be able to issue construction payments? If we assess the funding for the project to be stable and reliable, then we take this into consideration when bidding."²⁹ In sum, the Chinese companies perceived Mercy Corps to be a reliable partner that could help them break into new markets and navigate an operationally challenging business environment.

International Committee of the Red Cross and the Alhamduri Urban Water Works in Nigeria

Our second case involves CGC's work with the International Committee of the Red Cross (ICRC) on the Alhamduri Urban Water Works in Nigeria. The ICRC is one of the world's oldest humanitarian organizations, founded in Switzerland in 1863. Its mandate, formalized under the Geneva Convention of 1949, is to assist the victims of conflict and violence and promote laws protecting victims of war worldwide. It employs over 20,000 people and operates in more than 80 countries. In Nigeria, the ICRC's activities center on responding to the humanitarian consequences of ongoing armed conflict in the North East, as well as insecurity in the North West, North Central, and South South regions. Specifically, it assists with missing persons investigations, communications, and counseling; public health assistance, including improved access to water and sanitation; and the provision of food as well as other forms of material aid. In the ICRC is one of the Red Cross (ICRC) in the Red Cross (ICRC)

The Alhamduri Urban Water Works is one of the ICRC's recent initiatives in the North East in Nigeria. The ICRC jointly commissioned the project with the Borno State

³¹ ICRC, "ICRC in Nigeria Operational Facts & Figs. 2020," March 15, 2021, https://www.icrc.org/en/document/nigeria-infographics-operational-facts-figures-2020.



²⁷ PowerChina, "About Us," https://en.powerchina.cn/2019-03/13/content_36436636.htm.

²⁸ CGC, "Corporate Information," http://www.en.cecep.cn/g12829.aspx.

²⁹ In-person interview, Sinohydro West Africa Department representative, Beijing, December 2019.

³⁰ ICRC, "Who We Are," https://www.icrc.org/en/who-we-are.

Ministry of Water Resources to improve water quality and access for approximately 150,000 people, including those displaced by armed conflict, in an area of limited water supplies. Built on pre-existing infrastructure, the project involved drilling three new boreholes, building production and treatment facilities, and expanding water stands and taps in the local water distribution network. The project launched at the end of 2017, contractor work on the main facility began in January 2018, and construction was completed in January 2019. According to ICRC Water and Habitat Coordinator Fernando Resta, the ICRC is transitioning to a position of systemic support for the project, while transferring primary implementation to the Borno State Ministry of Water Resources. 4

Like Mercy Corps' IMAGINE project, the ICRC ultimately selected CGC through a competitive international tender due to its combination of technology, expertise, and experience.³⁵ The company had demonstrated experience building nearby road projects, equipment available nearby as well as a steel fabricating plant elsewhere in the country, an expressed willingness to follow ICRC rules and procedures concerning HSE, and neutrality with respect to the ongoing conflict in northeast Borno state.³⁶ Although the contract value of the Alhamduri Urban Water Works was only \$3 million, it was still a worthwhile commercial opportunity for CGC to utilize its existing equipment in northern Nigeria and add to its bottom line for business in the country. There were also fewer competitive bids for mid-sized infrastructure projects: "European construction companies would hardly bother for anything below \$10 or even \$20 million contract. Chinese companies showed here that they could be interested in smaller amounts, like a couple of million." In this way, Chinese companies like CGC emerged as highly competitive bidders for small and mid-sized contracts, which were too small for European companies to be interested in bidding on—but also too big for local companies to be competitive.

To the authors' knowledge, ICRC has not yet partnered again with CGC or another Chinese SOE, although further collaboration in Nigeria or elsewhere remains possible. As ICRC Urban Water Program Manager David Lee Zziwa described the incentives for such a future partnership: "[Chinese companies] have the equipment, they have the expertise, but they lacked supervision of local staff on the ground. So if those elements are rectified, I would recommend working with them again." ICRC Head of Operations for West Africa Doris El Doueihy also expressed the possibility of future cooperation,

³⁸ Due to safety concerns after incidents of violence and kidnapping involving Chinese citizens in Borno state, CGC sent Nigerian staff from other parts of the country who they trained and monitored remotely from Abuja. The only time that the Chinese expatriate staff were on-site for construction was during the most technically complicated stages, such as the electromechanical works and the erecting of the above-ground water tank, approximately 8 months into the project. Remote interview with Zziwa, Urban Water Program Manager at ICRC, February 19, 2021.



³² ICRC, "Alhamduri Urban Water Project," https://www.arcgis.com/apps/Cascade/index.html?appid=939340facfa2435b945b01f14dfee962.

³³ Ibid.

³⁴ Remote interview with Fernando Resta, Water and Habitat Coordinator at ICRC, May 20, 2021.

³⁵ Remote interview with David Lee Zziwa, Urban Water Program Manager at ICRC, February 19, 2021.

³⁶ Ibid

³⁷ Remote interview with a representative of an INGO working with Chinese companies in Africa, December 15, 2020.

underscoring that contractor capability rather than nationality is of primary concern: "If the project is managed well, we [are] fine with it. It [the partnership decision] will be dependent on the project itself and the standard or the offer that they are capable to give us." Those at the ICRC therefore expect partnerships with Chinese companies to continue and expand in the future.

Similarly, multiple factors incentivized CGC to work with the ICRC on the Alhamduri Urban Water Works. The company had previously completed road construction projects in northern Nigeria and already had equipment and materials in the area that it could use. Like the Chinese SOE Sinohydro that partnered with Mercy Corps on the IMAGINE Program in the DRC, CGC also viewed the ICRC as a reliable financier. Zziwa recalled that it was clear to CGC that "ICRC was in a position to pay them." The ability to use existing equipment and materials on the ground, coupled with ICRC's reliable funding, made the contract attractive to CGC despite its smaller scale.

Overall, the Alhmanduri Water Works again illustrates the opportunities and challenges for joint projects involving humanitarian organizations and Chinese SOEs. For ICRC, CGC brought expertise, a competitive bid, and access to a broader supply chain in an operationally challenging geography. In return, CGC was able to lower its costs by using existing materials and equipment in Nigeria, while ensuring ontime payment from a reliable project owner. However, the personnel challenges of not having Chinese managers on-site raised concerns for ICRC about future Chinese SOE partners again adopting a sub-contracting approach and thus creating additional logistical and supervision challenges. Although Chinese SOEs will likely bid for future ICRC infrastructure projects in Nigeria and globally—with bids for other projects in Nigeria already submitted—any decision to partner again would depend on project needs and contractor expertise, price, and project delivery.⁴¹

World Food Programme and Cassava Flour Production in Congo

Our third case examines collaboration between the World Food Programme (WFP), an IGO, and several Chinese commercial actors—including an SOE—in support of cassava value chain development in the Republic of Congo. The WFP is the food assistance branch of the UN and the world's largest humanitarian organization. As an IGO, it works closely with host-country governments to achieve their national priorities. In the Republic of Congo, the WFP works with the government on its three main goals of its National Development Plan: (1) improving governance; (2) increasing human capital; and (3) economic diversification through agriculture. ⁴² Efforts to realize this third priority, economic diversification through agriculture, have created an opportunity for WFP Congo to work with Chinese companies.

⁴² Remote interview with Jean-Martin Bauer, Country Director for WFP Congo in Brazzaville, July 13, 2020. If not otherwise noted, much of the background information in this section is informed by this interview.



³⁹ Remote interview with Doris El Doueihy, Head of Operations for West Africa at ICRC, May 20, 2021.

⁴⁰ Remote interview with Zziwa, Urban Water Program Manager at ICRC, February 19, 2021.

¹¹ Ibid.

Despite its wealth of available arable land, the Republic of Congo depends on imported food to meet its population's needs. Over 90% of Congo's arable land is uncultivated, and 70% of its food is imported from overseas. At the same time, the country relies extremely heavily on export revenue which makes up 98% of GDP (World Bank, 2018). The country's top exports are natural resources like petroleum, copper, and timber—the majority of which are bound for China. The need to diversify the Congolese economy and feed its population with domestically produced food is a major government priority.

Facing this challenge, the WFP began to think of ways to support Congo's agriculture and to diversify its economy. Jean-Martin Bauer, the country director for the WFP in Congo-Brazzaville between 2017 and 2020, viewed smallholder farmers as a key part of the solution. Instead of continuing a decades-long practice of importing rice for its aid programs, the WFP started purchasing food from local smallholder farmers to feed vulnerable populations like schoolchildren, refugees, and internally displaced persons. While the WFP has been able to increase the amount of food purchased from local smallholder farmers over time, Bauer saw a need for small-scale industrial production of flour from Congo's major local crop: cassava.

As plans for local cassava production began to take shape, WFP considered how to engage Chinese partners. The Republic of Congo and China have historically had a close diplomatic relationship and China is a major investor in the country's economy. Because of these strong connections to China, Brazzaville has a local branch of the Chinese Academy for Tropical Agriculture and Sciences (CATAS), 45 which helps to share China's expertise about cassava production. The WFP initially worked with the Brazzaville-branch of CATAS to provide training for local smallholder farmers about cassava farming techniques and how to reduce post-harvest losses. That positive experience with Chinese experts provided an impetus for WFP Congo to consider working with a Chinese company to build and operate the cassava flour plant. In fact, the initial suggestion to work with a Chinese company arose through an informal conversation between WFP Congo representatives and the Chinese embassy in Brazzaville. 46

After that conversation, the WFP began to communicate with several Chinese companies. At first, the WFP discussed plans with a Chinese central SOE, but ultimately moved forward with Zhengwei Technique. Weihai International Economic and Technical Cooperative (WIETC), a local SOE headquartered in Weihai in Shandong Province, established Zhengwei Technique in 2001 as its locally incorporated subsidiary. The company has since completed multiple large infrastructure projects in Congo, including the country's largest international airport, and has also engaged in potash extraction.⁴⁷

⁴⁷ For more information, see the timeline on WIETC's website (Chinese and English): http://www.wietc.com/m/content.aspx?id=157.



⁴³ World Bank, "Congo," 2021, https://www.wfp.org/countries/congo.

⁴⁴ OEC World, "Republic of the Congo," 2021, https://oec.world/en/profile/country/cog/.

⁴⁵ For more information, see: Chinese Academy of Tropical Agricultural Sciences, "Introduction," December 22, 2017, http://www.catas.cn/EN/contents/1262/109161.html.

⁴⁶ Remote interview with Ali Ouattara, Interim Country Director for WFP Congo, March 25, 2021.

In September 2019, the Investing in Africa Forum in Brazzaville convened public and private sector actors from China, Africa, and the international community to promote collaboration on international infrastructure development (World Bank 2019). Bauer describes attending this forum and meeting WIETC representatives, who were featured at a high-level event. After this, the WFP began facilitating conversations between the company and the Congolese government. In October 2019, the company toured southern regions of the country to evaluate their agricultural potential. The company ultimately signed an MOU with the Ministry of Agriculture stating their intent to consider investment in the sector.

Once built, the WFP envisions that the cassava plant would provide locally sourced food and help stimulate the local economy. According to Bauer, the factory would produce 10,000 to 20,000 tons of fortified cassava flour per year. In addition to building and operating the plant, the WFP is also encouraging the Chinese company to source raw cassava tubers from local smallholder farmers. ⁴⁸ In this way, the plant would help to diversify the Republic of Congo's economy through domestic production of agriculture without displacing small farmers.

Rather than partnering on projects directly as in the previous two cases, the WFP's role has primarily been to facilitate negotiations between the Congolese government and the Chinese company. As WFP Congo interim country director Ali Outtara explained: "We are not directly contracting with the company, [but] we are trying to facilitate the implementation of this factory because it will help us implement our activities." WFP Congo plans to help smallholder farmers increase their cassava production in order to sell excess supply to the plant. The WFP could then buy the finished product from the cassava mill to use in their local food aid programs, such as the school feeding program. If this first project goes well, the WFP and the Congolese government envision spreading the model to other parts of the country.

From Chinese companies' perspective, the WFP's role in the project can uniquely help alleviate concerns about political and commercial risk. The Republic of Congo has a risky business environment due to political instability and civil unrest. In 2016, allegations of electoral fraud in the presidential election led to protests and violent conflict involving insurgent groups that lasted until December 2017, causing massive internal displacement. The fact that the WFP could purchase the cassava flour provides much-needed stability for Chinese investors. "We're here to advise, but we're also here to de-risk. As long as the WFP is here to say, 'look, we're interested in potentially buying the product,' that really matters to an investor," Bauer added. 51

Although the ongoing COVID-19 pandemic has delayed the cassava plant project, it is still moving forward. In February 2020, a joint proposal between the WFP, Food and Agricultural Organization (FAO), and the International Fund for

⁵¹ Remote interview with Bauer, Country Director for WFP Congo in Brazzaville, July 13, 2020.



⁴⁸ Remote interview with Bauer, Country Director for WFP Congo in Brazzaville, July 13, 2020.

⁴⁹ Remote interview with Ali Ouattara, Interim Country Director for WFP Congo, March 25, 2021.

⁵⁰ Reuters, "Congo Republic Signs Peace Accord with 'Ninja' Rebels," December 23, 2017.

Agricultural Development (IFAD) for cassava value chain development, which includes plans for the flour mill, received \$492,437 in funds from the China-IFAD South-South and Triangular Cooperation Facility financed by the Chinese Ministry of Finance. Then, in December 2020, WFP Congo jointly hosted a webinar on cassava value chain development together with the WFP's Regional Excellence Centre Against Hunger and Malnutrition (CERFAM) in Cote d'Ivoire and the WFP Center of Excellence in China. The webinar also convened other actors from WFP offices in Africa, Brazil, China, and WFP headquarters in Rome. The planned Congolese cassava plant and the prospect of similar projects in other countries was a key topic of discussion. As of May 2021, the plans for the project have moved forward with a market analysis and social and environmental assessments.

If realized, the cassava plant project could benefit all three actors — the Congolese government, the Chinese company, and WFP Congo. It would advance the government's economic diversification goals, allow the Chinese company to pivot from infrastructure and extraction to production while minimizing risks, and increase the WFP's ability to locally source food for its programs. The plant, once completed, could also become a model for other similar initiatives within the WFP's operations in Africa and beyond.

Chinese SOE-Humanitarian Organization Partnerships: Opportunities and Challenges

The above cases illustrate several opportunities and challenges for SOE-humanitarian partnerships. From humanitarian organizations' perspective, one advantage is Chinese companies' willingness and ability to work in politically and economically challenging contexts. The WFP's Bauer described with appreciation the prospect of collaborating with a company willing to work "in a country that has virtually no industrial processing capacity." ⁵⁶ Besides this, humanitarian partners have been impressed with the quality of the work produced at a competitive price. Mercy Corps' Elmer explained: "In a context like Eastern Congo, again, historically local companies don't have the capacity, the quality standards aren't there. ... The issues that we have encountered, it's not as much on the actual quality of the work that's being done. ... the product that's being left behind is still of good quality." ⁵⁷ In low capacity and politically risky contexts, Chinese companies' growing international

⁵⁷ Remote interview with Whitney Elmer, Mercy Corps DRC Country Director, August 14, 2020.



⁵² China-IFAD South-South and Triangular Cooperation Facility. "Approved proposals: second call." https://www.ifad.org/documents/38714170/41790143/china-ifad-sstcf-2ndcall.pdf/00417b02-b582-6f51-efa4-045b299b382d?t=1581501509000.

⁵³ WFP, "WFP Republic of Congo Country Brief – December 2020," January 15, 2021, https://relie fweb.int/report/congo/wfp-republic-congo-country-brief-december-2020.

⁵⁴ Remote interview with Ali Ouattara, Interim Country Director for WFP Congo, March 25, 2021.

⁵⁵ WFP, "WFP Republic of Congo Country Brief – May 2021," May 31, 2021, https://reliefweb.int/report/congo/wfp-republic-congo-country-brief-may-2021.

^{56¹} Remote interview with Jean-Martin Bauer, Country Director for WFP Congo in Brazzaville, July 13, 2020.

experience and technical expertise positions them as viable infrastructure partners for humanitarian organizations.

Similarly, Chinese SOEs can derive unique benefits from these partnerships despite their limited scale. In particular, Chinese SOEs' commercial interests can align with humanitarian organizations' goals. As Bosa of Mercy Corps, a Process Analysis Specialist responsible for overseeing all DRC-based programs, explained regarding the IMAGINE Program: "[The DRC is a] big country [with] a lot of resources, [and] the infrastructure is almost nothing. If they stabilize, then they need to put up infrastructure. Being in the [DR] Congo will give [Chinese companies] opportunities to do future work." This observation further underscores that these partnerships are more likely to occur in contexts where Chinese companies are breaking into new markets or sectors.

However, the three cases also provide evidence that Chinese SOE-humanitarian organization partnerships also present challenges. First, small humanitarian projects have limited attractiveness to Chinese SOEs which routinely bid on contracts worth tens or hundreds of millions of dollars. For many of these firms, INGO and IGO projects are too few and small-scale to be a priority. As a Chinese SOE representative observed: "NGO cooperation could be popular all around the world if we can find these projects, but the size of the project can't be big – there will be an upper bound. So the potential cooperation between SOEs and NGOs will be 'small and popular' [widespread]. We can't do big projects with NGOs." Unless some of the conditions discussed above are present—such as a humanitarian organization's strong links to China or a firm's desire to enter new markets—it is difficult to see how these partnerships would otherwise emerge.

Another frequently cited obstacle is language barriers and other communication-related issues. INGO and IGO respondents describe these as typical "transaction costs" of partnering with Chinese companies. Communication challenges were greater for projects involving actors of multiple nationalities and linguistic backgrounds, because translators may have varying command of all the languages required to effectively facilitate communication among diverse stakeholders. For example, communication between Mercy Corps and the Chinese SOE contractors on the IMAGINE Program routinely involved translating among three languages: French, English, and Chinese.

Humanitarian organizations' China offices can play an important role by facilitating communication and alleviating coordination difficulties. In the case of the WFP, Bauer observed: "Thankfully, there was a very constructive role played by Chinese staff members at WFP who happen to know me and speak both English and Chinese. They played a very constructive role in making this happen." When Bauer visited China, the WFP Centre of Excellence in China helped to facilitate his meetings. For the IMAGINE program, a Mercy Corps China staff member flew to the DRC for a week to assess and assist with communication. This person also attended meetings

In-person interview, Sinohydro West Africa Department representative, Beijing, December 2019.
 Remote interview with Bauer, Country Director for WFP Congo in Brazzaville, July 13, 2020.



Remote interview with Jeff Bosa, Process Analysis Specialist at Mercy Corps DRC, July 30, 2020.

with Mercy Corps DRC staff and Sinohydro representatives in Goma and with CGC representatives at the company's regional headquarters in Kigali, Rwanda. They helped directly address challenges including communication, reporting, labor issues, and technical and governance standards. As they recalled: "One successful outcome [of my visit] was that both sides had an adjustment of expectations about working together. They learned together about their respective strengths and capabilities."61

Humanitarian organizations' strict standards for environmental, labor, and gender safeguarding can also be a formidable hurdle. While such standards are a hallmark of many humanitarian organizations' development activities, they may pose problems for Chinese SOEs less steeped in such practices. In the IMAGINE Program, concerns about safeguarding and labor contracts arose quickly. Mercy Corps has a hotline for workers and community members to report violations, and a large volume of community complaints were recorded after the project broke ground. As complaints came in, Mercy Corps informed the Chinese SOEs. Typically, the contractor should follow up to investigate the complaints, but this did not happen as Mercy Corps expected. 62 While many early issues have improved, there have also been significant violations, including a health and safety issue that led to a fatal accident at one of the construction sites in March 2020. In response to these more serious issues, Mercy Corps DRC suspended works at different times at both sites, Goma and Bukavu.

A related challenge pertains to project monitoring and compliance. When implementing the IMAGINE Program, for example, Mercy Corps felt that CGC fell short of the high standards required by Mercy Corps, FCDO, and the project's International Federation of Consulting Engineers (FIDIC) contract.⁶³ Elmer, the country director for Mercy Corps DRC, explained: "We've had to adapt the way that we work ... ensuring that our minimum standards are being met and that the workers do have a mechanism for providing feedback and complaints. Whereas the initial understanding, ...was that the company would put in place that mechanism on their own and would have the capacity to do their own follow up of complaints or investigations."64 Bosa, who handled the complaints at Mercy Corps, observed: "I also understand that safeguarding and things like that, these are new things for them and they are aligning. I'm sure they'll adapt to it."65 From the perspective of the Chinese SOE contractors, a Sinohydro representative shared: "For the IMAGINE Program, it's not that we don't have the reporting that they want. In Chinese we have tons of paperwork! [Rather it's that] they want it written, in French or in English. We follow their book."66 There has been a learning curve for both Mercy Corps and

⁶⁶ Interview with Sinohydro West Africa Department Representative, Beijing, December 2019.



⁶¹ In-person interview with Mercy Corps China Office representative, Beijing, December 2019.

⁶² Information in this paragraph is largely gleaned from a remote interview with Jeff Bosa, Process Analysis Specialist at Mercy Corps DRC, July 30, 2020.

⁶³ FIDIC is a French language acronym for Fédération Internationale Des Ingénieurs-Conseils.

Remote interview with Whitney Elmer, Mercy Corps DRC Country Director, August 14, 2020.
 Remote interview with Jeff Bosa, Process Analysis Specialist at Mercy Corps DRC, July 30, 2020.

the Chinese SOE contractors as they acknowledge areas for future improvement and adjust to working with one another.

Corruption also remains a serious concern in Chinese SOEs' international business and can occur at any stage, from project identification to tendering to implementation. Chinese leader Xi Jinping's ongoing anti-corruption campaign has underscored the persistence and prevalence of graft in SOEs. Both at home and abroad, Chinese firms use "speed money" (petty bribes given to non-elites to surmount bureaucratic hurdles or accelerate exchanges) or "access money" (rewards to powerful officials to access exclusive, valuable privileges) (Ang, 2020). Graft involving international infrastructure projects has resulted in the censure and even blacklisting of Chinese SOEs. In this study's three cases, corruption did not appear to be a primary driver or obstacle in Chinese SOE-humanitarian organization partnerships. This may be due in part to humanitarian organizations' stringent standards and competitive international tenders for the projects. However, corruption remains an important concern in Chinese SOEs—and other foreign firms'—overseas infrastructure projects, and it should not be dismissed as a factor in any future Chinese SOE-humanitarian organization collaborations.

Growing pains in Chinese SOE-humanitarian organization partnerships also derive from fundamental differences in their perspectives on development. For humanitarian organizations, host country actors and needs are foremost, and their top priority is maximizing local impact by delivering quality infrastructure built to high governance and HSE standards. Chinese SOEs do view the infrastructure they build with humanitarian organizations as serving host country needs, but they prioritize commercial benefits. As a CGC employee stated: "The nature of our work in infrastructure and technical training is already promoting development." On paper, many Chinese SOEs also share the HSE and governance standards of their INGO and IGO partners, but their focus is on making a profit from the projects they build. As Zziwa described from the ICRC's experience working with CGC: "Because [the company has] a profit-making motivation, whatever knowledge they give comes with a cost ...One of the advantages is that you will be working with a contractor



⁶⁷ SOE investigations during Xi's anti-corruption campaign have uncovered executive embezzlement, bribes, and lavish perks like 25,000 RMB (3,600 USD) lunches (Zhou 2015).

⁶⁸ For example, the World Bank and African Development Bank have censured Chinese SOEs like Sinohydro for corruption compliance concerns. African Development Bank Group, "Integrity in Development Projects: African Development Bank and Sinohydro Reach Settlement Agreement on Fraudulent Practice," May 24, 2018; World Bank Group, "Annual Update: Integrity Vice Presidency (Int)—Fiscal Year 2016":

http://documents1.worldbank.org/curated/en/330521476191334505/pdf/INT-FY16-Annual-Update-10062016.pdf. Multiple WIETC subsidiary entities are currently debarred by the African Development Bank for engaging in "coercive, collusive, corrupt, fraudulent or obstructive practices"; among them, the World Bank has also cross-debarred five. See https://www.afdb.org/en/projects-operations/debarrent-and-sanctions-procedures and https://www.worldbank.org/en/projects-operations/procurement/debarred-firms

⁶⁹ As cited above, numerous humanitarian organization representatives expressed in interviews that Chinese SOEs were well-qualified and met tender requirements on the basis of their engineering expertise and operational experience.

⁷⁰ Remote interview with CGC employee, DRC, December 2020.

who is experienced. ...But of course, you have to be very careful because the contractor will guide you in a direction where he can make profit."⁷¹

These different perspectives also underpin the division of labor between SOEs and humanitarian organizations within such partnerships. Chinese SOEs' role as contractors limits their long-term stake in overseas infrastructure projects. Over the past decade, Chinese SOEs have been actively diversifying their partners and project modes abroad through public—private partnerships (PPP) with host country governments, taking equity shares in the projects they build, establishing joint-ventures with foreign firms, and even financing and constructing smaller works themselves. However, Chinese SOEs' traditional and primary role remains as contractors. As such, Chinese SOEs' physical presence and stakes in the project end when they complete project construction. They therefore have limited long-term stakes in humanitarian projects overseas—and in the local communities and environments where they are located. This contrasts with humanitarian organizations, who are often committed to long-term local development outcomes.

Fundamentally, the top priority for Chinese SOEs remains serving commercial objectives and China's interests. Chinese SOEs' business—including their international business—supports the state at home by providing employment for workers at home and abroad, exporting excess industrial capacity, and providing tax revenues and dividends (Leutert 2020). With international projects making up a growing proportion of many Chinese contractors' business portfolios, these firms' contributions to domestic development in China increasingly depend on their ability to win and execute profitable projects abroad. As a Sinohydro employee in Beijing explained: "The company belongs to the [Chinese] government. We need to do business so that the company can survive. In this way SOEs can help local people and places [in China] to develop. We are a company and we run its property for all people in China and the government." Citing the IMAGINE Program in the DRC, they added: "We like CSR [corporate social responsibility], but to be frank that is not our motivation for this project."

Conclusion

As Chinese SOEs expand their operations worldwide, surprising new partnerships for overseas infrastructure development are emerging with humanitarian organizations like Mercy Corps, the ICRC, and the WFP. For Chinese SOEs, such small, low-profile works seem commercially and politically unattractive compared to the international megaprojects for which these firms are best known. Humanitarian organizations, which rarely contract for infrastructure, also emphasize the international standards and best practices Chinese SOEs are often critiqued for failing to

⁷³ Ibid.



⁷¹ Remote interview with Zziwa, Urban Water Program Manager at ICRC, February 19, 2021.

 $^{^{72}}$ In-person interview with Sinohydro West Africa Department Representative, Beijing, December 2019.

uphold. The three cases analyzed here suggest that such partnerships are more likely to occur when a humanitarian organization has previous experience working in China or with Chinese actors, when Chinese SOEs seek to enter new markets or sectors, or when these firms operate in dangerous or politically unstable environments.

While currently modest in number, such partnerships may proliferate in the coming years. As the Chinese government combines goals for overseas development with humanitarian aid, it may even help to fund them. In September 2020, for example, the Chinese government and the WFP signed an agreement to provide food aid to Ethiopia and Guinea under the framework of the South-South Cooperation Assistance Fund. Also in 2020, the Chinese government gave \$100,000 of humanitarian aid directly to Mercy Corps — a relatively rare instance of China channeling its humanitarian assistance through an NGO instead of transferring it directly to another national government.⁷⁵ These examples illustrate that humanitarian organizations have recently been moderately successful in attracting Chinese funding for their work. Perhaps more importantly, to the extent that SOE-humanitarian partnerships further the interests of Chinese firms overseas, China's government has a strong incentive to support the expansion of these projects. But apart from highlevel agreements negotiated between Chinese government officials and international humanitarian organizations, humanitarian aid organizations and Chinese SOEs are also forging everyday partnerships more quietly—and organically—on the ground.

Indeed, all three of this paper's cases illustrate a bottom-up approach to Chinese SOE-humanitarian organization partnerships. Mercy Corps DRC and ICRC Nigeria both held open international tenders for their water infrastructure projects and Chinese SOEs' bids were the most competitive. An informal conversation between WFP Congo's staff in Brazzaville with interlocutors at the Chinese embassy led to plans to build a cassava flour factory that would be mutually beneficial for a Chinese company and for WFP Congo's food aid programs. Although top-down agreements and partnerships between the Chinese government and humanitarian organizations might make headlines and eventually provide additional funding, relationships on the ground reveal how these seemingly unlikely partners can align their divergent interests and initiate collaboration from the bottom up.

Future partnerships between "principled" actors and Chinese SOEs may extend beyond the humanitarian space. International NGOs are already engaging with a diverse cast of Chinese actors, including SOEs, around the globe (Plantan, Leutert, and Strange 2022). These INGOs work in diverse areas, from health to environmental protection to disaster relief. While cooperation on infrastructure development appears most puzzling, Chinese SOEs are also joining with INGOs to open spaces for dialogue, research, and training related to development work overseas. Additional research is needed to assess whether the same conditions affecting the likelihood of Chinese SOE-humanitarian organization partnerships on infrastructure

⁷⁵ Drawn from 2020 OCHA FTS data: https://fts.unocha.org/donors/2976/recipients/2020.



⁷⁴ WFP, "China Supports WFP's Assistance to Vulnerable People in East and West Africa," September 30, 2020

projects also apply to other types of collaboration, such as joint research or training, or whether they apply to partnerships with privately owned Chinese companies.

In the short term, Chinese SOE-humanitarian organization partnerships face logistical challenges and mounting uncertainty. During the ongoing COVID-19 pandemic, China has restricted border entry for foreigners, discouraged non-essential travel for its citizens, and imposed stringent quarantine and testing requirements for international travelers of all nationalities. Repeated outbreaks of the Omicron variant inside China during 2022 have prompted large-scale lockdowns, including in the major commercial centers of Shanghai and Beijing, thereby inhibiting Chinese SOEs and other companies' ability to pursue and conduct international business. And although Chinese SOEs in the construction sector have so far avoided regulatory crackdowns like those the Xi Jinping administration has executed in the technology and real estate sectors, this could change in the future. Operational difficulties and growing uncertainty could hamper SOEs' ability to work with humanitarian organizations in the near future.

Nevertheless, several features of Chinese SOE-humanitarian organization partnerships may facilitate their continuation and possible expansion. First, Chinese SOEs have the technical expertise and equipment necessary to execute infrastructure projects while keeping costs competitive, even in politically unstable environments. As some countries slash overseas aid to mitigate the financial effects of the COVID-19 pandemic and Russia's war against Ukraine, 78 humanitarian organizations may be incentivized to keep project costs low in order to stretch limited budgets. Second, many humanitarian organizations have China operations that are explicitly pivoting to support South-South cooperation, such as the WFP's Centre of Excellence in China or Ford Foundation Beijing's new "China in the World" strategy. 579 China-based staff can apply years of accumulated knowledge and relationships to help identify new opportunities to collaborate with Chinese actors overseas, while China offices can help enhance communication and coordination. Third, Chinese SOEs view humanitarian organizations as reliable business partners that could provide opportunities to expand into new markets or business areas, further incentivizing partnerships. Each of these trends suggests that overseas development projects involving humanitarian organizations and Chinese SOEs may become more common in the future.

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⁷⁹ Ford Foundation, "China in the World," July 2020, https://www.fordfoundation.org/media/5474/fordf oundation-china-july2020.pdf.



⁷⁶ Thomas Hale, "China Says It Will 'Strictly Limit' Citizens From Going Abroad," *Financial Times*, May 12, 2022.

^{77 &}quot;Factbox: How China's Regulatory Crackdown has Reshaped its Tech, Property Sectors," Reuters, April 29, 2022.

^{78°} Kaamil Ahmed, "'A Hammer Blow': How UK Overseas Aid Cuts Affect the World's Most Vulnerable," *The Guardian*, June 3, 2021; Thalif Deen, "War in Ukraine & Rise in Arms Spending Undermine Development Aid to the World's Poor," Inter Press Service, April 15, 2022.

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