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Tensions in Sino-African labour relations: the view from the Karuma hydroelectric dam in Uganda*

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ABSTRACT

Over the last decade China has become a dominant player in Africa's rapidly growing hydropower sector. These mega projects typically employ thousands of Africans yet research on labour relations at these sites remains extremely limited. This article provides a rare systematic analysis of workers' experiences on a Chinese-financed-and-constructed hydroelectric dam in Africa. We find that chronic verbal abuse of African workers by Chinese managers is a defining feature of labour relations at this project in Uganda. This abuse has tainted many workers' attitudes towards the Chinese contractor Sinohydro, the Chinese government, and to a lesser extent Chinese people themselves. Workers also perceive Ugandan organisations and the Ugandan government as complicit in these poor labour relations. These findings underscore the limits of accountability to labour standards by Chinese firms operating in Africa, especially in contexts where host organisations and governments fail to advocate aggressively for the rights of African workers.

Keywords – China, Uganda, development, hydropower.

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The hydroelectric dam looms large in development. As a source of potentially endless cleaner energy on a massive scale, hydropower dams have been framed as crucial to modernisation and economic growth in many of the world's poorer countries. In the 20th century, these mega projects were embraced by Western development agencies, in particular the World Bank. Yet, dams also became some of the most controversial development projects, criticised especially for their environmental damage, displacement of communities, and loss of local livelihoods. Due to such criticisms, by the turn of the millennium the World Bank, along with other Western funders, had reconsidered how dams figured into their development portfolio, essentially retreating from this sector for the next decade.

This shift in the role of hydroelectric dams in Western development funding coincided with the rise of a new player in global dam construction: China. As part of China's 'going global' strategy aimed at finding new international markets for China's state-owned and private companies, China began promoting overseas dam construction, along with other large-scale infrastructure projects. Given China's domestic expertise in dam building, most notably the Three Gorges Dam, the world's largest hydroelectric facility across the Yangtze River, China's rise as a global dam funder and builder has been significant. By some estimates over half of all new hydropower projects through 2030 in Africa, Latin America and Southeast Asia are slated to be either financed or built by China and Chinese firms (International Energy Agency 2021).

A key region for China's growing dominance in dam construction has been sub-Saharan Africa. Since the turn of the millennium, the Chinese government, along with Chinese private investors and companies, have greatly expanded their presence on the continent, funding and constructing roads, airports, stadiums, industrial parks and many other large projects. Dams are a central component of this going global into Africa strategy and provide a useful lens for key aspects of China–Africa relations more generally. Dams are large-scale mega projects involving significant financing from the Chinese central government and construction by China's largest state-owned enterprises. Thus, dams are high-profile and high-stakes bilateral partnerships between China and an African country. The large-scale nature also means many Chinese workers and many, many more African workers are employed, at a wide range of skill levels, often for years at a time.

This article focuses on one prominent dam project, the Karuma Hydropower Project, a 600-megawatt power station on the Nile River in northern Uganda. When completed, the Karuma dam will be the largest in Uganda and one of the largest in sub-Saharan Africa. While Uganda is a relatively small country, it has forged a strong partnership with China in recent years. This has resulted in an outsized range of China funded and/or constructed projects in Uganda, with the Karuma dam a particularly significant example. Drawing on ethnographic research at Karuma from 2017–2020, this article focuses on a surprisingly neglected aspect of China–Africa dam projects: workers' experiences. We present what is to our knowledge the first in-depth analysis of African

workers' experiences on a China funded and/or built dam in Africa. Our analysis reveals that workers at Karuma experienced a wide range of labour problems, including long hours and low wages, that the Chinese contractor, the Chinese funder and the Ugandan government were reluctant to address. More specifically, our most striking finding was a workplace where verbal abuse was persistent and routine across the many years of our data collection. We argue that this may well be a distinctive aspect of Sino-Africa labour relations and a dynamic that merits much more focused investigation.

CHINA, AFRICA AND THE POLITICS OF HYDROPOWER

China's overseas expansion into funding and constructing hydropower dams is a relatively recent phenomenon. While research on the topic remains limited, there is now a small body of literature that helps reveal what is distinctive about China's role in this sector. This includes studies of several China–Africa dam projects, such as the Bui dam in Ghana, the Soubre dam in the Ivory Coast and the Memve'ele dam in Cameroon. As with research on 'global China' more generally, a key theme in this literature is the need to distinguish between the role of China as lender and China as builder. As massive infrastructure projects, the funding for dams largely comes from the Chinese central government, in particular loans from the Export-Import Bank of China (EXIM). These concessionary loans then fund construction contracts with large Chinese state-owned enterprises, such as the massive Sinohydro firm. Thus, there is a division between the role of the Chinese central government as lender, with little oversight of a project itself, and the role of Chinese state-owned firms as builders who manage construction.

Regarding the lender side of the equation, China's EXIM bank does have published social, environmental and labour guidelines and does mandate external social-environmental audits prior to releasing funds for dam projects (Siciliano & Urban 2017; Jensen-Cormier 2019; Brautigam & Hwang 2019). In fact, many of these audits are done by Western contractors. However, existing research indicates that EXIM bank differs from its Western counterparts in the implementation, monitoring and enforcement of contractor compliance to guidelines. Research at multiple sites consistently shows that the Chinese state policy of non-intervention in partner country politics results in EXIM deferring to the host country's laws and practices for labour relations, environmental protections, and social impacts such as land compensation and disruptions of community livelihoods (Chen & Landry 2018; Yankson *et al.* 2018; Che 2021).¹

On the builder side, many Chinese firms also view social, environmental, and community responsibility standards as largely beyond their purview and the duty of the client government (Urban *et al.* 2015; Freeman 2017; Jensen-Cormier 2019; Chen & Landry 2018; Che 2021). This is especially true for firms focused only on dam construction and not design or operation; what are referred to as Engineering Procurement Construction (EPC) contracts.² For example, Ghana's Bui Dam project, financed by China's EXIM bank and

built by China's state-owned Sinohydro, was criticised by civil society groups for failing to comply with resettlement and environmental standards. However, Sinohydro claimed these standards were negotiated by civil society groups and the Ghanaian state and therefore outside its more narrow role as the construction contractor (Hensengerth 2011; Tan-Mullins & Mohan 2013).

The size of the Chinese firms also plays a role in these dynamics. For example, Sinohydro, a subsidiary of the enormous state-owned enterprise PowerChina, does indeed have corporate social responsibility policies. Yet, these standards are determined by the Beijing main office far afield from specific projects. This gives Sinohydro country managers much latitude in how, or whether, such standards are implemented at their sites, resulting in much inconsistency even across one firm such as Sinohydro (Tan-Mullins & Mohan 2013). Chinese hydropower companies are starting to recognise that they need to be more proactive about social-environmental policies to stay competitive, such as sharing information with civil society groups, heeding more to local law and investing in local communities (Chen & Landry 2018; Qiu *et al.* 2018). However, on balance firms remain focused on their selective roles as contractors, prioritising completing projects on schedule and making profits, and only implement stronger labour, social and environmental safeguards when obligated by laws of the host country (Urban *et al.* 2015).

These lender-builder dynamics help set the stage for the focus of this article, namely labour relations. Whereas criticism of Western-funded dam projects has typically focused on environmental damage and displacement of communities, Chinese projects have been criticised for their labour practices. Existing research, which remains very limited, documents consistently poor labour standards across multiple sites. For example, at Sinohydro projects such as the Soubre dam in the Ivory Coast and the Bui dam in Ghana, workers reported problems with contracts, low wages and working conditions (Hensengerth 2011; Kirchherr *et al.* 2016; Jensen-Cormier 2019).

Another key area of difference between Western firms and their Chinese counterparts is how managers respond to labour unions. In a nuanced comparison of dams and other projects with and without Chinese or World Bank funding in 18 African countries, Isaksson & Kotsadam (2018) found that Chinese sites discouraged local labour union formation, whereas Western sites encouraged worker organising, as well as engagement from civil society groups. They attribute this difference, in part, to Chinese managers' lack of experience with union organising in China, where there is essentially a single state-controlled organisation of workers, but also to firms' concerns that unions will increase costs and delay construction. In addition, the level of receptiveness of Chinese firms to unions depends in part on the in-country regulatory environment. At the Bui Dam project, for example, Ghanaian labour laws require the formation of a labour union. However, Sinohydro managers aggressively resisted unionising and only conceded after intervention of the Ghanaian government entity overseeing the project (Hensengerth 2011; Yankson *et al.* 2018).

Taken together, this existing research underscores the complexity of labour relations at China-funded and Chinese-constructed dam projects. It also highlights the need to better understand workers' first-hand experiences at these projects. Currently, in-depth research on dam workers' experiences is very sparse. Our fieldwork at Karuma helps to address this gap and also reveals how work on the dam shapes Africans' attitudes toward Chinese firms, the Chinese government, their own government and Chinese people more generally.

The case of Karuma Dam

Bordering Lake Victoria, the headwaters of the Nile River, Uganda is exceptionally well positioned to exploit hydroelectric power. Yet, from 1954 to the end of the 20th century not a single new hydropower plant was completed. In the new millennium, however, the World Bank and European countries provided financing for two additions to Uganda's hydropower: the 200 megawatt (MW) Kiira Power Station, completed in 2000, and the 250 MW Bujagali Power Station, completed in 2012. A new chapter in Uganda's quest for hydropower opened in 2013 when China agreed to finance two new dam projects, the 183 MW Isimba Power Station and the 600 MW Karuma Power Station. Karuma is more than twice the capacity of any previous hydroelectric dam in the country and the culmination of decades of planning for a station at powerful Karuma Falls on the Victoria Nile in northern Uganda. Like the much smaller \$567 million Isimba dam, the \$1.7 billion Karuma project received 85% of its funding from China's EXIM Bank, with the Ugandan government funding the remaining 15% (Wesango 2015; Ogwang & Vanclay 2021).

A stipulation of the loan was that the construction contract would go to a Chinese firm with Ugandan President Museveni eventually selecting Sinohydro through a Presidential Directive, circumventing the normal procurement procedure (Ogwang & Vanclay 2021). Sinohydro Bureau 8 is the main contractor building all the primary above-ground components while Bureau 5 is responsible for building an underground 'tail race' channel that carries water away from the dam. Both bureaus have also delegated some minor work to non-Chinese subcontractors, such as construction of substations and power lines. Construction began at Karuma in August 2013 and was originally projected to take five years. However, construction quality issues arose, most notably cracks in the dam itself. Work on regional substations and transmission lines was also delayed and completion of the dam is slated for 2023 (Barigaba 2022).

Research to date on the Karuma hydropower project has highlighted how this China-financed-and-built project has received less scrutiny compared with earlier Western-funded dams (Olanya 2016; Che 2021), the implications of EXIM's requirement that contractors must be Chinese firms (Wingo 2019; Ogwang & Vanclay 2021), and negative impacts on local villages (Mwalagho 2020). Labour issues at the dam, however, have received no analysis – a key gap in the literature that this article fills. During peak construction years,

Karuma employed approximately 6000 people, the vast majority of whom were Ugandans. This article is the first to present data on Ugandan workers' first-hand experiences and we argue that their perspectives provide important insights into China–Africa labour relations more broadly.

METHODS

This article is based on research at the Karuma dam site conducted from 2017–2020. This research is part of a larger project examining multiple China-funded initiatives in Uganda, including an industrial park and an agriculture development. The lead author conducted ethnographic observations and in-depth interviews at Karuma, with the assistance of two Ugandan research assistants. The team spent one to two weeks at Karuma annually for data collection, for a total of four periods of fieldwork.

By staying in Karuma village adjacent to the construction site, the research team was able to observe everyday life at the site. This included living conditions in the village, housing issues, food options, nightlife, health issues and relations between Chinese workers and Ugandans. In-depth interviews lasting approximately one hour in each case were conducted with workers at the dam site, as well as other residents not employed on the project. Overall, 53 in-depth interviews were conducted, including 29 interviews with workers employed by Sinohydro. This article focuses only on the interviews with workers.

The research team recruited workers for interviews by approaching workers leaving the work site at shift changes. This project employs hundreds of workers and during the two main shift changes there was a very large stream of workers leaving the site to return to the village. The three members of the team spread out to target different parts of the site. Each researcher would approach one person randomly. If this person accepted then an interview would be scheduled. The researcher would then count off 20 workers as they passed and select the 21st worker to approach next. As the sample increased over the course of fieldwork, attention was paid to getting sufficient diversity in terms of skill level of worker, Sinohydro or subcontractor employee, length of time employed, ethnicity, age and gender.

Potential study participants were required to give their verbal consent to participate in the study after being informed of possible benefits and risks of speaking with us. This study, including the informed consent process, was approved by the University of Colorado Boulder Institutional Review Board, the Makerere University School of Social Sciences Research Ethics Committee (Uganda), and the Uganda National Council for Science and Technology. All interviews with workers focused on their work experiences both positive and negative, comparisons with other work experiences, interactions with Chinese workers and attitudes regarding China–Uganda relations more generally. Interviews were conducted in English, Luganda, Acholi and Lango based on the language preferences of interviewees.

All interviews were recorded, transcribed verbatim and translated to English as needed. Interview data were analysed based on an iterative thematic analysis approach using the qualitative data analysis program Nvivo. First, transcripts were read through once with attention to themes established before data collecting, including labour conditions, satisfaction with work, interactions with Chinese employees and attitudes toward Chinese in Uganda. A second pass of coding labelled transcripts with emergent themes that were prominent across many interviews. In addition, we ranked workers' attitudes toward China and Chinese people on a 5-point scale ranging from bad to neutral to good. All names in this article are pseudonyms.

LABOUR RELATIONS AT KARUMA

Our sample of 29 workers reflected the range of Ugandans employed on the Karuma dam project (see [Table I](#)). In our sample, like the Karuma workforce overall, the vast majority of participants were men and nearly all workers, regardless of gender, were in their twenties. Approximately a third had only a primary school education, another third a few years of secondary school, and a third with some post-secondary education (usually a trade certificate). Workers came from ethnic groups from across the country, including the large southern group the Baganda as well as several northern groups including the Langi and Acholi. Notably, there was a wide range in the money workers earned, from approximately the equivalent of US\$2 a day on the low end to four times that on the high end. The majority of workers interviewed were long-term workers at Karuma, with most having at least a year of work experience.

While many workers felt their pay was too low, for most the pay and benefits were significantly better than other work they could find. With the exception of the lowest paid workers, who were all women, the wages, consistent work and benefits, such as some medical care and severance pay, made employment at Karuma some of the best compensated work these workers may ever have in their lives. This is not to dismiss workers' perceived concerns about pay but to emphasise the scarcity of similar work in much of Uganda. Grievances about excessively long work hours, especially in terms of lack of days off, were also common, along with complaints about mandatory overtime and harsh wage penalties for missed work.

As important as these issues were to workers' experiences, there was another issue that emerged from our research and was the key, distinctive feature of these China–Uganda labour relations. Overall, workers felt that labour relations were demeaning, utilitarian exchanges that lacked a sense of humanity. This theme was most evident in workers' discussion of persistent verbal abuse, a problem compounded by an intense language barrier. In this section, we begin by discussing this central theme. We then address how these issues were complicated by the diversity of Chinese organisations and actors at Karuma. Next, we turn to how the Ugandan government and Ugandan organisations affected these issues. Finally, we examine how this theme of persistent verbal

TABLE I.
Demographic characteristics of interviewees.

	Percentage	Number
Gender		
Male	76	22
Female	24	7
Age		
19–25	90	26
30–36	10	3
Education		
Primary	31	9
Secondary O-Level	38	11
Secondary A-Level	7	2
Post Secondary	24	7
Ethnicity		
Langi	24	7
Acholi	17	5
Bagisu	10	3
Iteso	7	2
Baganda	10	3
Other	32	9
Monthly Income USD		
Less than \$66	11	3
\$66–133	3	1
\$133–200	45	13
\$200–266	41	12
Total	100	29

abuse shaped workers' perceptions of China–Uganda relations more generally, and their perceptions of Chinese people.

The persistence and toll of verbal abuse

It was striking, and surprising, how many of the workers we spoke with discussed experiencing verbal abuse by Chinese workers and managers. This was the most common theme in our research, along with complaints about long work hours. Seventy-six per cent of workers we interviewed mentioned this when asked about their work experiences, with all discussing this issue in some detail and most with much specificity. Thus, it was clear that persistent verbal abuse was a routine aspect of work life at Karuma and that it had remained constant over the duration of our multi-year research.

The nature of the abuse ranged from yelling to more insulting name-calling. Peter, a 26-year-old man who had worked as a welder for over a year, put it this way, 'There is too much shouting full of abusing words in their language. ... Working with the Chinese is not easy and no one can say that he is benefitting because of those conditions.' Another welder, Ronald, echoed these complaints and discussed the ramifications of challenging abuse. 'They abuse, and they

have their abusive words, like *malegebi* [妈了个逼 “fuck your mother”],³ he said. ‘And the moment you tell him, “Don’t abuse me again” he will hate you. When he hates you, it means you are not going to be settled with him. There you have become his enemy. It means he can even chase you from work any time.’ Female workers also complained about this verbal abuse. Sharron, who worked as a cook for a year and a half, said, ‘They are kind of like harassing us. When they tell you to do something they want you to do it there and then however much you’re doing it already. There is a way they somehow take you as if you’re slaves.’

Workers clearly distinguished between verbal abuse, which they said was commonplace, and physical abuse which they reported as much less frequent. Eleven workers said they witnessed physical abuse of workers by Chinese managers, typically described as slapping or kicking. Several workers also described Chinese workers starting fights with Ugandan workers that resulted in physical abuse. Only two workers described personally being physically abused, and for one the altercation resulted in a head injury that required medical care.

Significantly, workers frequently linked problems with verbal abuse with the intense language barrier. According to our interviewees, it was rare to interact with a Chinese worker who had any facility in English. Workers made clear that this language barrier was not simply a minor inconvenience but instead profoundly impacted interactions between Chinese and Ugandan workers. Samuel, a relatively well-educated electrician with three years of work on the dam, said, ‘Very few Chinese are friendly. Most of them they are harsh. It is because of the language barrier. ... The language barrier is a big problem and it makes them harsh with us.’ Even workers who were positive about their experiences overall complained about the tenor of relationships with Chinese co-workers. Orach, one of the better paid workers with the longest work history of those we spoke with (5 years), described things this way, saying, ‘The relations between the Chinese and we black people are not good and that’s where the harshness can come in the work. ... The language barrier means the English which we speak with them is not the real English. ... When they talk in their words you cannot understand and it brings problems to you and you also feel a harshness like [being burned] with acid.’

A few workers spoke about the toll this routine verbal abuse took on their mental health. John Paul, for example, had worked in the machine shop for two years and was ambivalent about his experiences overall, saying his life was just ‘moderately’ better. He valued the new skills he had gained but described the mental burden of the persistent verbal abuse:

Mentally, the way our complaints were not handled, that one still hurts me up to now. They neglect such things and that still hurts me. Addressing these issues is very rare here at Sinohydro from down up to top. ... It causes stress. I would be happy, me personally, but unhappy mentally when I’m seeing my friends suffering.

For some workers, conditions at Karuma were very different from other work experiences with non-Ugandans. James, a welder for three-and-a-half years and one of the highest paid workers, was an interesting case in point.

He had worked on a large project with American and European contractors, including on the Bujagali Dam built by Italian contractors Salini Costruttori. He painted a stark contrast between his experiences at Bujagali and Karuma, saying pay, benefits and skills training were all better at the Italian firm. More significantly for this article, he also stressed that working at Sinohydro was more demeaning and less humane. ‘Bujagali was fair and was very OK [compared to] this one’, he said. ‘Here, some Chinese are abusing you with words. ... The Italians, at least you can explain, and they are understanding. If you have lost someone, you can say I’ve lost someone, and I go home [for the funeral] and don’t work. But with the Chinese if you have lost someone, they say, “No, you work!”’

Another worker, Hussein, had worked with the Kenyan construction firm Civicon on a project in Sudan and his co-workers and supervisors were mainly skilled workers from Italy. Hussein said the pay was less with the Kenyan firm but the workplace interactions much more humane. ‘You can’t love the Chinese because the way they treat us. We just work because of the conditions here in Uganda but there is no love at all’, he told us. ‘With these Italians there in Civicon, we could converse, we shared food, we shared everything, you chat. But for these Chinese people, no. ... we used to say they take us like we are slaves because they aren’t friendly with us at all.’

Complexities on the Chinese side

While the majority of workers discussed experiences of verbal abuse regardless of their position, workers also provided insight into how these experiences varied. Of particular note were the differences in labour practices of the primary Sinohydro contractor, responsible for the majority of the construction, versus the secondary Sinohydro contractor responsible for the construction of the tunnel for diverting dam water. Workers made clear that work for the primary contractor, colloquially referred to as Sino 1 or Sino Main, was better than the secondary contractor, Sino 2 or Sino Sub (for subcontractor). This was true for wages, benefits, workplace safety and levels of abuse, both verbal and physical.

Regarding abuse, Patrick, a mechanical engineer who was a highly paid driver for Sino1, and previously worked at Sino 2, summarised these differences. ‘Some departments at Sino Sub they fight other workers’, he said. ‘There is mistreatment and fighting with the [Ugandan] workers. Human right violations are higher ... [but at] Sino Main they respect laws of Uganda. They don’t do that [physical abuse].’ This observation was echoed by Aaron, a welder at Sino 2. He recounted an experience after he missed two days of unexcused work to attend his great grandmother’s funeral. When he returned his Chinese manager ‘start[ed] abusing me for missing work, saying I’m lazy. He was abusing me in their language, that *malegebi*. So then I said in English that, “You, you’re also stupid”. Then he came and banged me with an iron bar. ... He picked a metal bar just like this and he came and banged my helmet, and my helmet got broken.’ Aaron was injured and required medical attention.

His manager, however, called the local police who put Aaron in jail for two days. He was subsequently fired but managed to then get hired at Sino 1. He worked there for more than two years, experienced no physical abuse and earned a higher salary.

A second degree of complexity that Ugandan workers noted was the diversity of the Chinese workforce and how this diversity was tied to work conditions, including abuse. Workers were often perceptive of Chinese managers' inexperience and how this fuelled tensions with Ugandan workers. John, a Sino 2 tunnel welder, described these issues with less-educated Chinese managers. 'Most times they bring Chinese people here who don't know anything. They bring them here to learn on the job', he said. 'That is when they start behaving badly, they shout at the workers and treat them like they are nothing. Sometimes they would even want to fight with the workers.'

Several interviewees also differentiated between lower-skilled Chinese workers, who they felt were more likely to be abusive, and higher-skill, high-level, English-speaking Chinese managers who were described as much more professional. James, the very highly-paid welder quoted earlier, said, 'They are not all the same. You find you either have a boss who can think, who can reason, who can listen to problems if you explain to him. Then there are others who cannot even listen.' Thus, overall, while verbal abuse was a consistent theme, the workers we spoke with illuminated some of the complexity of these dynamics, underscoring the problems of seeing Chinese organisations and Chinese workers as monoliths.

Role of Ugandan organisations and the Ugandan government

At Karuma, there were two Ugandan organisations tasked with monitoring labour conditions: the workers' union and the Uganda Electricity Generation Company Limited (UEGCL). The union was funded through monthly dues paid by Karuma workers while UEGCL is a large parastatal company created in 2001 following the breakup of the Uganda Electricity Board. UEGCL has a broad mandate to operate and expand power stations owned by the government and monitoring work conditions at Karuma is just one facet of the company's work.

Workers we spoke with were largely critical of the workers' union and felt it did an inadequate job of addressing workplace problems. This was expressed most clearly by several workers who felt the union was often bribed by Sinohydro management to ignore workers' complaints. In 2017, Francis, who had worked for Sinohydro for over a year and was generally happy, told us, 'There are the union people who are supposed to fight for our rights here but we have come to know that they are also paid by the Chinese. So, if you have a big problem they don't continue with it. They maybe [negotiate] something small then they stop there.' A year later, Patrick, the well-paid Sino 1 driver quoted earlier, described the union this way: 'Sometimes when the case gets serious the Chinese call them into the [Sinohydro] human resource office

and they bribe them. [The union representatives] get some bribes and they sit on the case. Nothing happens. They side with the company or the human resources office. They don't do what they are supposed to do.'

With an ineffective union, workers said that worker-organised strikes were their main bargaining tactics, and workers reported several wildcat strikes over the years (*The Monitor* 2017). Particularly interesting was the May 2018 strike when over 1000 workers walked off the job. Striking workers complained about low wages and continuing physical abuse by Sinohydro supervisors but also focused their ire on the Karuma workers' union itself. This included its poor track record in representing grievances regarding working conditions, excessive fees and taxes, as well as allegations of embezzling funds (*The Observer* 2018). UEGCL met with striking workers to help mediate on their behalf with both the union and Sinohydro. While there is no public record of outcomes of negotiations, workers we spoke with did not note changes with the union but did report improved work conditions in limited respects. They most consistently discussed small pay increases and, more significantly, a reduction in physical abuse by Chinese supervisors. Our interviews with workers in 2019 and 2020 indicated that physical abuse and altercations remained rare at both Sinohydro 1 and 2. Workers framed these as hard-fought gains that only occurred because UEGCL and Sinohydro were prompted to act in response to strikes.

A catalyst in the worker-organised strikes was the East African Human Rights Education Movement (EAHREM), a very small regional NGO. EAHREM heard about worker complaints at Karuma and began focusing on educating workers on labour rights. To investigate workers' allegations, Michael, the Uganda country coordinator, began working at Sino 1 in 2017 as a labourer and then later at Sino 2, for a total of five months. In our 2022 interview with him, he reported widespread physical and verbal abuse at both bureaus and confirmed conditions at Sino 2 were significantly worse. 'Workers used to call the Chinese gods', he told us. 'Whatever a Chinese man decides is what is supposed to be implemented, even if they beat you. They do anything to you and you do not have a right to say anything.' During his work in the tunnel he reported being 'assaulted by a Chinese manager; I was severely beaten'. According to Michael, the work of EAHREM at Karuma was instrumental in prompting workers to strike three times, including in 2018. He claimed this organising led to improvements at both bureaus, including the reduction in physical violence that other workers reported.⁴

Significantly, Michael was also dismissive of UEGCL, adding that even those employees sympathetic to workers' concerns 'would fear to intervene because they thought they would lose their jobs'. He also echoed what other workers said about corruption in the union. '[The union] was getting money from Sino to silence other workers', he said. 'The union was supposed to work as the human rights defenders for the workers but in real sense they were doing the opposite. ... Whatever they were doing, they were doing it in the interest of Sinohydro, the Chinese, and not in the interest of the workers.'

For a few workers, criticisms of the union and UEGCL were tied to larger concerns of how the Museveni government oversaw the project. Patrick, who complained about the union siding with management, felt President Museveni favoured Chinese contractors because they finished projects on schedule. 'For some long time we have been doing strikes here and the President has been seeing them over the TV, Facebook, and the rest. But no response is taken by the President. So, we've got no power.' John Paul, who discussed his mental health stress, also expressed exasperation, saying, 'If [the government] had some laws over these people and these laws were working we would be achieving a lot from this project. ... We don't have [proper] policies. That's the main problem for how we can benefit from the Chinese. I will not attack the Chinese but I will attack the government itself for not doing its work.'

Thus, the consensus among workers was that neither the union, UEGCL or the Ugandan government, especially President Museveni, was invested in proactively ensuring workers' rights. From workers' perspectives, this provided Sinohydro much autonomy in determining labour standards and gave workers little leverage in advocating for better pay, treatment, benefits and safety protocols. 'The government protects those Chinese more than Ugandans, so they wouldn't want anything to happen to them', said Michael, the labour organiser. 'They would rather you get a problem as a whole village rather than a Chinese man getting a problem. They get protection and immunity here so you can't do anything to them.'

Complexity of workers' overall attitudes toward China and Chinese people

A key finding in our research is the very high percentage of workers who discussed the routine verbal abuse by Chinese workers and how this abuse was emblematic of the fraught work relations. Surprisingly, however, there was no similar consensus on workers' overall attitudes about working for a Chinese company and with Chinese people. The results indicate a wide range of attitudes and no clear correlation between a person's attitudes and their gender or pay level (see [Tables II](#) and [III](#)).

Given workers' complaints about mistreatment and verbal abuse, it was not surprising that many workers had strongly negative views overall about working with a Chinese firm such as Sinohydro. John, the well-paid welder quoted earlier about verbal abuse, said, 'The Chinese are not social and if a person is not social you cannot work with them for a long time. ... The way they behave is not humane.' Hussein, the man who had worked with the Kenyan firm, told us that he benefited from working at Sinohydro, earning money to marry and buy land. He also acknowledged Chinese firms brought skills and technology that Uganda needed, saying, 'Though they are rude they are useful'. However, this rudeness tainted his experiences overall, making him suspicious of Chinese firms more generally. 'When the Chinese bosses are coming to Uganda, they give him some instructions how to go and work with Ugandans so when they reach here they don't compromise with

TABLE II.
Workers attitudes toward China and Chinese people by gender.

	Bad	Neutral-Bad	Neutral	Neutral-Good	Good	
Men	7	3	5		7	
Women	1	2	1	1	1	
Total	8	5	6	1	8	28*

*Plus 1 woman not clearly asked attitudes.

TABLE III.
Workers attitudes toward China and Chinese people by pay level.

	Bad	Neutral-Bad	Neutral	Neutral-Good	Good	
Low		1	1	1	1	
Mid	4	3	2	1	2	
High	3		2		3	
Very High	1		1		2	
Total	8	4	6	2	8	28*

*Plus 1 woman not clearly asked attitudes (low-pay).

Ugandans. We used to say they take us like we are slaves because they are never friendly with us.'

A more unexpected finding, however, was that a few workers who spoke at length about verbal abuse and related poor labour conditions were nonetheless very positive about working with this Chinese company and China's presence in Uganda. A prime example was Orach, the well-paid worker quoted above who discussed the harshness of the chronic verbal abuse. He had also been electrocuted on the job due to poor supervision by his Chinese boss and hospitalised for several days. Yet, Orach was very happy overall with his time at Karuma. He described himself as disciplined, not wasting his money on drinking or prostitution, and focused on making the most of this opportunity. 'Men who have a view like me benefit. Now, I can call myself a man too. I have a house. I have benefited and I'm happy also about it. A young boy like me, just 24, and I have a house. ... That's the positive part I've got [from this work].' His ability to achieve these milestones of manhood at Karuma then shaped his overall attitudes about Chinese people and China-Uganda relations. 'The Chinese are good people when you know how to work with your boss. Then you cannot get any hardship with your boss and you get used to him. So they are good people. I'm very happy', he told us.

Approximately half of workers, however, fell into an ambivalent middle category who harboured varying degrees of resentment over working conditions

but appreciated the opportunity to earn much-needed income. John Paul, who previously discussed the mental health toll of persistent verbal abuse, clearly expressed this sense of ambivalence. 'Is my life better? No, just moderately improved but I cannot say better. Of course there is some small change. I cannot say there is nothing. That's why I'm a bit glad but not very happy as the way someone would expect to be after joining this place. Things are not really OK but they are somehow OK. Just somehow', he said.

With regard to attitudes toward Chinese people more generally, some workers' negative experiences tainted their opinions of Chinese people overall, at times bordering on racist generalisations. A good example was Peter who was quoted earlier discussing the verbal abuse and problems with the union. For someone with only a primary school education, his mid-range Sinohydro salary would have been very difficult to match elsewhere. Yet, he was extremely negative about his experiences working with a Chinese firm and this had then tainted his attitudes toward Chinese people generally. 'The Chinese are not good people. Maybe they are born by demons [laughs]. I am telling you the truth maybe they are born by demons. ... The Chinese have no friends here. He loves you if you are working hard. If you are working very slow, he cannot.' Sharron, the cook quoted earlier, made similar negative, broad-brush statements about Chinese people. 'The Chinese are not good people, they are not friendly. But you just work [until] you can no longer tolerate their behaviour. Or you can no longer tolerate their rudeness. How they rule over you.'

A variation on these highly negative views of Chinese people was expressed by the labour organiser Michael quoted earlier. In Michael's opinion, racism was central to how Chinese people interacted with black Africans. 'They do not value a black man. I think they see a black man as half a human or some bit like an animal', he told us. 'Most of the [Chinese] projects we have tried to engage, the situation is the same as Karuma. ... I think they see us as inferior, as if we are half human.' When asked if it was actually the language barrier causing misunderstandings, Michael was dismissive. 'We have worked with people who don't share a single word with us but they still consider you as a human being. Even those [Chinese] that speak a little English, their behaviour to us is not human.'

Yet, not all workers were comfortable with such generalisations, including some of the workers with more education. Edward, a well-paid electrician with a post-secondary certificate, said, 'Those [Chinese] men are complicated. ... Most of them are from villages and they are not exposed to people so they don't have good manners.' Denis, a similarly well-paid driver with a post-secondary certificate in information technology, also stressed the need to differentiate between Chinese people. 'Those who have been exposed [to other kinds of people] they are good people but those who have not been exposed I think they are bad people. Those who are exposed they have not only studied in China but they have also been to other countries rather than locked up in one place in China only', he said. 'The majority they are not good. But there

are some few who are very good and they are just humanitarian. You can talk to him and he understands when you express yourself.'

SITUATING THE CASE OF KARUMA

Our research revealed that a particular cluster of conditions have come together to create labour conditions that are problematic in specific ways. In many respects, work on a project such as the Karuma dam is shaped by the same global neoliberal capitalist forces that exploit low-skill labour through poorly paid, precarious labour regimes that maximise firm profitability. At Karuma, these fundamental transnational capitalist dynamics are compounded by an intense language barrier, the inexperience of many Chinese managers, and Sino-Africa race-based tensions to create a work environment highly vulnerable to conflict, verbal abuse, and mistrust. Our research spans many years and indicates that these dynamics have not shifted in any meaningful way. We did find several important complexities in labour dynamics, including differences between Sinohydro bureaus and Chinese workers' varying skill levels, that mediated these labour dynamics. However, overall workers described a fraught, problematic work environment and, crucially, the Ugandan government and Ugandan organisations not only failed to advocate for workers but actively undermined their efforts to improve work conditions.

While information on labour relations at other dam projects in Uganda is very sparse, there are some useful points of comparison. The second China-funded dam project in Uganda, the now-completed Isimba Dam, has important similarities to Karuma. Isimba was also financed by EXIM but built by a different Chinese firm, China International Water & Electric Corporation (CWE), a subsidiary of the giant state-owned China Three Gorges Corporation (CTG). Both CWE and CTG have explicit policies regarding their commitment to workers' rights and respecting local labour laws. Yet, according to the NGO International Rivers, there were multiple examples of labour abuses during the five years of construction, including improper contracts, withholding pay, and verbal and physical abuse of Ugandan workers (Jensen-Cormier 2019). Ugandan media have also reported worker strikes, similar to those at Karuma, related to widespread grievances with pay cuts, unsafe work conditions, poor compensation for injuries and unfair termination of contracts (Walukamba 2015; The Independent 2019).

Uganda also allows for a useful contrast between dams with Chinese partners and recently built dams with Western partners, in particular the Bujagali hydro-power station. A dam at this site was originally approved in 1994 but it would take 18 years for it to be completed. The main reason for the protracted construction was extensive review of the project's environmental and social impact. This review was so thorough because it coincided with the World Bank's return to hydroelectric dam funding in the late 2000s under much more stringent internal and external impact assessments (World Bank 2009; Chen & Landry 2018). Especially important at Bujagali was the effect on local

religious and heritage sites (FIVAS 2014). Due in part to the assessments and required actions, the initial US contractor, AES, dropped out. It was only after the project was significantly reconceived that construction began in 2007 with Salini Costruttori, an Italian firm, responsible for the engineering, procurement and construction.

Bujagali has certainly not been without labour problems. The Compliance Advisor Ombudsman (CAO), the official independent accountability mechanism for the International Finance Corporation (IFC), the private-sector arm of the World Bank Group, received seven formal complaints from both negatively affected local communities and dam workers (CAO 2018).⁵ Several of these complaints focused on labour issues involving health-and-safety problems and unpaid wages. Specifically, 93 former workers said they were seriously injured on the job and not adequately compensated and another group of 300 workers employed by a subcontractor said they were not paid properly (Edwards 2018). These complaints remained unresolved 6 years after construction ended in 2012 and it was only due to a 2018 refinancing of the project that the IFC agreed to the CAO's demands and committed to working with Salini Costruttori and the subcontractor to resolve these disputes (CAO 2018).

Thus, both Bujagali and Karuma had labour problems related to workers' compensation issues and unpaid or improper wages at subcontractors. However, Karuma's funder, EXIM bank, has far less robust internal and external accountability mechanisms which in turn makes Karuma's builder, Sinohydro, less accountable for labour problems. As Karuma workers noted, mechanisms to report complaints, through the workers' union or the Uganda Electricity Generation Company, were inadequate at best, leaving workers with few options for voicing grievances. Our research suggests such labour problems may in fact have been widespread at Karuma but never officially documented. Also notable is the lack of any complaints at Bujagali of abuse, physical or verbal. The one worker we interviewed who had been employed on both projects underscored this difference, stressing the stark difference between Salini Costruttori and Sinohydro management.

Turning to a comparison with China-funded and/or constructed dam projects elsewhere in sub-Saharan Africa, it is clear that Karuma is not exceptional. Research at other sites confirms a general pattern, also seen at Karuma, of how less external accountability of EXIM bank and Chinese contractors such as Sinohydro creates conditions for more labour problems (as well as environmental and social problems that are beyond the scope of this article). For example, at EXIM-funded and Sinohydro-constructed Bui dam in Ghana labour relations were also problematic, even with stricter national labour laws compared with Uganda. As noted earlier, Ghanaian law requires labour union formation but Sinohydro resisted unionisation with 'open intimidation' saying it was 'unnecessary interference in their work' (Hensengerth 2011: 35). When workers complaints about poor living conditions, excessively long work hours and low wages led to wildcat strikes, such as those at Karuma, Sinohydro's response was to continue intimidation tactics to deter organising. However, with mass

worker resignations leading to delays in construction, the Ghanaian government eventually intervened and pressured Sinohydro to allow a union (Hensengerth 2011; Yankson *et al.* 2018). Yet, such gains were limited. Ghanaian workers' grievances were not adequately addressed even with the labour union and later research found working conditions remained poor (Kirchherr *et al.* 2016).

Research on recently completed dams in Cameroon is also particularly useful because, like Uganda, it allows for a comparison between China-funded and Western-funded projects. Chen & Landry (2018) compared the Chinese EXIM bank-funded Memve'ele dam built by Sinohydro with the World Bank-funded Lom Pangar dam built by Chinese SOE China International Water & Electric Corporation (CWE), which also built Uganda's Isimba dam. They found that at both projects 'labor tensions and problems of communication were endemic' including conflicts over working conditions, low pay, and at Memve'ele 'harassment and assaults' (Chen & Landry 2018: 8). However, the 'crucial difference' was the World Bank's willingness to force their contractor, CWE, to adhere to established labour standards, going as far as halting disbursements of funds. EXIM bank, in contrast, was not responsive to problems raised by the Cameroonian government or the official French oversight agency Coyne et Bellier and thus placed no pressure on Sinohydro to enforce standards. Che (2021) also found that worker protests at Memve'ele were consistently much more severe compared with Lom Pangar, including riots at the EXIM-funded dam. Che concludes that the World Bank's frequent site visits and the requirement that CWE set up a formal complaints office were crucial to managing workers' concerns. This led to fewer, less serious anti-project demonstrations and a sense that Lom Pangar's Chinese managers were 'more responsive to expressed grievances' (Che 2021: 670). At the EXIM-funded Memve'ele dam, however, there was no formal mechanism to lodge complaints. Instead, Sinohydro referred workers to local government officials and, on occasion, even used state security agencies to repress protests. These dynamics at Memve'ele were strikingly similar to those we found at Karuma and compounded by Sinohydro's hostility to worker unions. As Isaksson & Kotsadam (2018) convincingly show, Sinohydro is not exceptional regarding resisting worker organising but instead the norm for Chinese development projects across Africa compared with those funded by Western donors.

Finally, given the focus of this article, it is important to compare our findings at Karuma with other documented cases of physical and verbal abuse, even though data on workers' experiences are very limited. As noted above, workers at Uganda's Isimba dam who were interviewed by the NGO International Rivers reported physical and verbal 'violence by Chinese supervisors toward Ugandan staff' (Jensen-Cormier 2019: 51). At Sinohydro's Soubre dam in Ivory Coast, workers also reported 'many instances of discrimination and violence', including physical violence by Chinese managers and 'several other cases of race-based violence' (Jensen-Cormier 2019: 39).^{6,7} Intense language barriers clearly played a role in verbal and physical abuse in both cases. CWE

managers at Isimba acknowledged that conflicts may ‘occasionally occur’ due to ‘differences in culture and expression’ and Sinohydro management at Soubre began French language courses for Chinese workers to improve relations with African workers (Jensen-Cormier 2019: 51).

While language issues have been noted at other China–Africa projects, research explicitly analysing the impact of the intense language barrier remains rare. Franceschini’s (2020) research at Chinese-owned construction sites in Cambodia is an exception and he argues that language barriers are key to a ‘labor force dualism’ that favours Chinese over Cambodian workers. Like at Karuma, the barrier creates ‘frequent misunderstandings’ with Cambodian workers who express ‘deep annoyance’ with Chinese colleagues who were ‘bossy and arrogant’ and ‘always so rude’ (Franceschini 2020: 526). While such barriers can at times be surmounted or contested, as Driessen’s (2020) research in Ethiopia indicates, they are formidable. We argue that the intense language barrier is indeed a central component of labour tensions at Karuma. However, the persistent forms of abuse cannot be reduced to simple misunderstandings due to language issues. Instead, the intense language barrier combines with the other labour issues we document plus the specific structural dynamics of a project that is both Chinese funded and built to create work relations that are fraught in particular ways.

CONCLUSION

This article presents the first in-depth data on the experiences of African workers at a hydropower project with China partners. Our findings corroborate much of the existing China–Africa research that indicates the specific challenges of holding Chinese funders and contractors accountable to labour, social and environmental standards (Isaksson & Kotsadam 2018). As the case of Karuma shows, these accountability problems can be particularly pronounced when a project is funded by the Chinese central government, uses Chinese state-owned enterprises, operates under China’s non-interference policy and occurs in a host country with limited national standards and a government reluctant to pressure Chinese institutions and organisations to maintain standards. As Wingo (2019) aptly puts it in his overview of China–Uganda projects, this ‘China, Inc.’ approach to development produces consistent problems with accountability. The hydropower sector is an especially useful domain to examine these dynamics. China not only has a large presence in this sector but operates quite differently from Western funders, especially the World Bank, who significantly improved their accountability mechanisms in the new millennium.

Our findings also support Lee’s (2017) more general conclusions about the impact of Chinese state capital in Africa. As she persuasively argues, unless African governments take a proactive role in monitoring and enforcing standards in a sector they define as strategic, Chinese state capital operates like any other form of transnational capital. This includes the typical problems

seen across the globe related to labour relations, social impacts and the environment. While Lee did identify a case where Chinese state capital was more responsive to pressure, namely the strategic and heavily unionised copper industry in Zambia, our research at Karuma suggests that such cases are very much the exception not the norm. Uganda, like many other sub-Saharan countries, has few labour protections and a state that is extremely eager to garner continued funding from China, especially in sectors such as energy. Even in Ghana where unions are mandatory, the Ghanaian state tended to side with Chinese funders and contractors until worker strikes derailed construction. Thus, while we agree with Lee's argument in general, Karuma is a cautionary tale for how China is shaping development across Africa.

The more distinctive contribution of this article is the key finding regarding the labour relations at Karuma where abuse seems systemic. While other research has gestured toward these issues, this article has provided evidence that these dynamics may be all too common. Our findings suggest that there may be something at work beyond more classic labour conflicts related to pay, benefits and safety. We also stress that the abuse is not simply a language barrier issue. Further research is needed to probe more into these tensions over abuse, especially research focused on how race and racial discrimination matter. Such research also needs to extend, of course, to Chinese workers, especially managers, to gauge how they perceive their African co-workers. We argue that such tensions are not a minor issue in China–Africa relations but instead may be a defining issue in the everyday relations at the growing number of workplaces across the continent where Chinese managers and African workers interact.

Exploring these issues is key for the African hydropower sector because China's role in this growing sector is increasing. In Uganda for example, the even larger Ayago dam project has received initial interest from the state-owned PowerChina construction firm (Biryabarema 2020). Like Uganda, many African countries will likely continue to look first to China as a partner as they seek out new sources of cleaner energy. Without much more explicit attention to mitigating the problematic labour relations identified in this article they are likely to persist.

NOTES

1. This is not to suggest that Western donors practice social responsibility based purely on good intentions. Olanya (2016) argues that the World Bank has social responsibility standards because of persistent external pressure from the US Congress, international NGOs and civil society groups.

2. In this sense, Chinese companies in their international expansion have learned to act like any other international firm focused on EPC contracts (Brautigam & Hwang 2019; Jensen-Cormier 2019). However, Chinese firms are subject to a more narrow range of international regulations (no OECD regulations for example) and thus ultimately less beholden to such standards.

3. Several workers noted the use of this phrase.

4. EAHREM documented what they described as 53 particularly egregious cases of workers' rights violations, especially workers with severe injuries who were not helped or compensated. In 2018, the organisation hired a legal firm to seek damages from Sinohydro but due to lack of financial resources the cases were eventually dropped.

5. Two complaints related to potential environmental damage due to flooding were also filed with The Inspection Panel, the independent complaints mechanism for the World Bank.
6. This report, unfortunately, does not include further details on the meaning of 'race-based' or any direct quotes from workers.
7. Workers at Sinohydro's Bui dam in Ghana also reported physical violence at the hands of Chinese managers (Kirchherr *et al.* 2016).

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