Double Precarisation of Labour and Social Reproduction: Zambian Mineworkers' Experience of Electricity Pricing

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ABSTRACT

This article explores how increases in electricity tariffs for mining companies and domestic consumers affect the lives of Zambian mineworkers. It shows that, on the one hand, mining companies retrench workers, citing falling rates of profit, in a context in which unions are weak and workers have limited recourse, meaning loss of employment and uncertainty. On the other hand, given their low wages, the withdrawal of company social benefits, wage inflation and high indebtedness, increasing tariffs undermine mineworkers' ability to meet their cost of living. In addition, it leads to conflicts about the efficient use of electricity at household level, increasing use of dirty fuels and vulnerability to criminality. This article argues that, for mineworkers, electricity tariff increases lead to a double precarisation – of labour and reproduction. The article draws on ethnographic field research conducted between 2015 and 2023 in two mining communities and two underground mine sites on the Zambian Copperbelt.

KEYWORDS

ZESCO, Mopani Copper mines, mineworkers, electricity

Introduction

"I just woke up in the hospital bed with this deep cut on my forehead. I cannot recall how this happened. The only thing I can remember is that I felt a severe headache and chest tightness." This is how Peter, an underground miner, described his response to his retrenchment in 2017. This happened when Mopani Copper Mines (MCM), a company then owned by the Swiss multinational Glencore, closed down some of its plants in protest against a proposed increase in electricity tariffs for mining companies by Copperbelt Energy Corporation (CEC).

Peter's reaction is understandable, firstly because of the hardships associated with retrenchments on the Copperbelt. Outstanding bank loans in a context in which banks recover their loans using retrenchment packages compound this hardship (Musonda, 2021a, 2023). Second, receiving news of retrenchment after more than eight hours of underground work, which was followed by a tedious one-hour-long walk in the dusty, winding, and rocky and sometimes mud terrains, can be extremely stressful. Despite the fans providing cooling, the heat underground is unbearable. The choking fumes from blasting and mobile equipment (such as loaders and dump trucks), together with the dust, made breathing laborious. These fumes also leave a bitter taste in the mouth and blinding itchiness in the eyes, even when one wears goggles. On this fateful day, I worked with Peter, drawing the drill holes, drilling and cleaning, inserting explosives, charging and blasting in one section. We then went to the other section to water down the dust and insert ground supports. In the process Michael, another colleague, a heavy-duty mechanic, suffered a rock-fall injury on his forehead. This article examines how the impact of electricity prices is not only felt through constant blackouts or the rising cost of living but also how it means potential employment loss and increased uncertainty.

This article speaks to three bodies of literature focusing on precarity, the experience of electricity, and mining studies of uncertainty. There is a growing body of literature focusing on how global economic restructuring since the 1970s – in particular, economic liberalisation and privatisation – led to growing precarisation of work for millions of workers across the globe (Quinlan, Mayhew and Bohle, 2001; Hewison and Kalleberg, 2013; Standing, 2014; Hewison, 2016; Han, 2018). Accompanying this precarity are debates around the categorization of workers into different classes (See, for example, the precariat debate, involving scholars such as Munck, 2013; Allen, 2014; Standing, 2014; Scully, 2016). These studies provide important insights about the growing uncertainty and vulnerability and for understanding the class question. One limitation of these studies, however, is that they restrict their understanding of precarity to the workplace. This article addresses this gap. Specifically, this research also builds upon studies that highlight the double precarisation by highlighting the experience of mineworkers who are generally understood as the most privileged workforce. In addition, while recent mining studies highlight how retrenchment and subcontracting lead to growing precarity and uncertainty of life, little attention is paid to the permanently employed, unionised direct employees (Mususa, 2010, 2021; Benya, 2015; Rubbers, 2017; Lee, 2018b). Further, several studies highlight the negative impacts of unaffordable tariff hikes on residential users (Maboshe, Kabechani and Chelwa, 2019; Moore, 2019); the experience of load shedding (Makhdoom, Nawaz and Narejo, 2017; Jamil and TayyabaSohail, 2018; Malange, 2023); the associated social inequalities (Kesselring, 2017), and how people cope with it (Moore, 2019; Malik et al., 2022). Often missing from these analyses is the impact of electricity pricing on workers. This article introduces the workers' experiences in these discussions by focusing on Zambian mineworkers, traditionally understood as the most protected workers. This article sees precarity as a condition embedded in the political economy of electricity provision in the Copperbelt. Moreover, despite a plethora of mining studies focusing on mineworkers, when it comes discussing hardship or uncertainty beyond the workplace, scholars often focus on ex-miners (Ferguson, 1999; Mususa, 2021; see also Rubbers 2017). This article is about miners in current employment.

Zambian mineworkers provide an important case to study the politics of electricity pricing for various reasons. Historically described as labour aristocrats by some scholars (Burawoy, 1972; Parpart, 1983), Zambian mineworkers enjoyed various social benefits such as electricity, housing and maintenance, water, health care, birth grants, public sanitation and burial costs provided by the state-owned Zambia Consolidated Copper Mines (ZCCM) in addition to stable, lifelong, unionised employment with pensions (Fraser and Lungu, 2007; Mususa, 2021). The privatisation of ZCCM led to the withdrawal of this "cradle-to-grave" paternalism (Fraser and Lungu, 2007; Mususa, 2021). Today, mining companies respond to global commodity price fluctuations by retrenching workers (Lee, 2018b).

Concomitantly, inflation has progressively eroded the wages of the shrinking workforce, which have become insufficient to meet their families' needs and support a growing number of unemployed relatives who are out of work because of recurrent mass lay-offs (Musonda, 2021a, 2021b, 2023). Miners compensate for their low wages using loans from banks and other lenders to meet their cost of living and invest in housing and education and to start businesses. However, because their wages are so low, they do not qualify for loan amounts that enable them to achieve long-term investments without subsequent loans, resulting in their entrapment with lenders who charge abnormal interest rates (Musonda, 2021a, 2023). This article shows that ZESCO's (Zambia Electricity Supply Corporation's) increases in electricity prices for the mining companies often mean loss of employment for mineworkers, as MCM retrenches workers due to the falling rate of profit and workers have limited recourse because of weak trade unions. The increase in electricity tariffs for domestic consumers forces (ex)mineworkers and their families to adopt household strategies aiming to minimise use of electricity and other sources of power such as firewood for cooking, candles, and paraffin for lighting. However, this strategy motivates tensions, as the "male breadwinner" often has to "discipline" his family on the use of electricity. Meanwhile the other sources of power increase risks of fire, damage and even death

This analysis draws on 36 months of research in Mufulira and Kitwe on the Zambian Copperbelt. During this period, I worked for nine months as an underground helper with various teams from two mine sites. During this research, I lived among my respondents in their homes to have a firsthand experience of their everyday life. I listened to their stories and participated in their discourses, observed their practices and asked the necessary questions to understand their everyday life fully. I also stood alongside these workers and their families in lines while purchasing electricity and listened to complaints about the use of electricity within the households. I also conducted more than 100 interviews with miners and their wives and children. This research is part of my broader ethnography dealing with the question of what it means to have a job and be a worker under the neoliberal dispensation, tracking their livelihood experiences through the workers' everyday lives, considering safety/life and death at work, debt and livelihoods, employment uncertainty, precarious work, family and gender relations (Musonda, 2020, 2021b, 2022).

This article draws on Mario Candeias' (2008) notion of the double precarisation of labour and reproduction. This concept asserts that privatisation of public goods and services often individualizes the ever-rising costs of social reproduction onto poorly paid workers, ultimately resulting in precarisation of individual and collective agency and a decline in the quality of life. This article uses this approach to make the connection between the uncertainties of job losses (sphere of production) and the tensions that arise in the households (sphere of reproduction) as a result. This approach helps to highlight how the uncertainty and fear of losing a job at work, driven by electricity tariffs and retrenchments, shape the conditions of social relations in the household (of the unpleasant reality of managing, in some cases, other's "inconsiderate", "irresponsible" electricity consumption).

The article begins with the background context of the politics of electricity pricing in Zambia. Drawing on historical and recent anthropological studies, the second section attempts to characterise the modern life of miners to foreground an analysis of how electricity pricing affects their everyday lives and their employment, addressed in the fourth and fifth sections respectively. The conclusion pieces together all these different aspects of the systems of energy provision in Zambia.

Electricity Pricing

Zambia's electricity sector reflects what Fine and Rustomjee (1996) describe for South Africa as a mineral-energy complex. This refers to a system of accumulation historically shaped by cheap hydro combined with cheap labour to generate cheap electricity for export-oriented mining extraction. The first hydroelectricity plant (HEP), the Victoria Falls, with installed capacity of 8MW, became operational in 1936, coinciding with the inception of large scale mining (Chabala and Chileshe, 2012). Increased demand for copper from the mid-1940s onwards, amidst the Second World War mining boom, led to increased demand for power. However, generation capacity consistently lagged behind demand, with capacity increasing to only 108MW by 1968. The second HEP, the Kariba North Bank, whose construction commenced in the mid-1950s, was only completed in 1977, with a total capacity of 1266 MW of electricity. Similarly, the construction of Kafue Gorge Upper, commissioned in 1971, reached a total capacity of 1080MW by 1975 (Chabala and Chileshe, 2012). By 1975, mining accounted for 66 per cent of energy consumption, coinciding with copper production which stood at a staggering 750 000 tonnes (Fraser and Larmer, 2010; Chabala and Chileshe, 2012).

From the mid-1970s however, Zambia's economy collapsed owing to various factors, including a sharp decline in the global copper price, a global spike in the cost of fuel in 1973, and deeper ore bodies with the constant pumping out of water, which made production costlier. In addition, the closure of the border between Zambia and Rhodesia from 1973 to 1978, the start of the Angolan civil war in 1975 and the consequent closure of the railway to Lobito (the main route for copper exports to Europe and North America) blocked Zambia's engagement with the global economy. Further, the United States Federal Reserve's decision to raise interest rates and therefore the price of the dollar in 1979, resulted in abnormally high import costs and an uncontrollable surge of debt taken on to finance national development plans (Adam and Simpasa, 2010; Rubbers and Lochery, 2021). "Between 1974 and 1984, government revenue fell by 30 per cent" (Larmer, 2006: 297). Several mines closed down. ZCCM production collapsed from a high of 750 000 tonnes in 1973 to 257,000 tonnes in 2000 (Fraser and Lungu, 2007: 8). The decline in mining production also implied a decline in electricity demand, and a surplus capacity on ZESCO's part (Witworth, 2022). Although ZESCO exported some of its surplus power to Zimbabwe, and remained moderately profitable, it failed to accumulate reserves to finance future investment. According to Witworth (2022), this was because of supplying the mines and residential consumers at very low tariffs.

However, from 2000 onwards, following the privatisation of the mines, copper production increased to more than 800 000 tonnes amidst increased demand from China (Zambia EITI, 2017). Consequently, demand for electricity from the mines also increased, even outstripping ZESCO's supply. Yet the government ignored ZESCO's calls for more capacity and raising consumer tariffs (Witworth, 2022). Today mining companies consume more than half of the total capacity. Although Zambia has the potential to generate 6 000 MW of hydroelectricity and holds up to 28 per cent of the water supply of the SADC region, it has only exploited 30 per cent of this potential (Phiri, 2018). As such, ZESCO's dependence on its ageing and hardly maintained fleet led ultimately to its deterioration, decay and reduced generation capacity, leading to the first load shedding in 2007 (Witworth, 2022). The IMF attributed the load shedding to the low tariffs and subsidies. In response, between 2008 and 2011, the government of Rupiah Banda introduced "cost-reflective" tariffs, resulting in an increase in residential rates to eight US cents/KWh in 2010, their highest ever level.

However, the Patriotic Front (PF) who came into office in 2011 with a promise of implementing pro-poor policies suspended tariff increases (Witworth, 2022). Sufficient rainfall and a high bill collection rate in SSA, at 96 per cent with almost all residential customers captured on prepaid metres, helped to sustain ZESCO without the need to raise the tariffs (Trimble, 2016; Bayliss and Fine, 2020). However, between 2015 and 2016, Zambia experienced a sustained drought and ultimately a decline in national electricity generation by 13 per cent compared to 2014, translating into a power deficit at the peak of the crisis equivalent to almost half of total generating capacity (GCF, 2018). Fearful of losing the presidential by-elections in 2015 following President' Michael Sata's death, and the scheduled elections in 2016, the PF government insisted on expensive emergency imports as a short-term solution to the crisis. However, because the cost of imports exceeded the selling price to consumers, ZESCO made substantial losses (Siliya, 2015; ZESCO, 2016). A sharp fall in the value of the local currency during this period made the dollar-dominated imports even more expensive (Bayliss and Pollen, 2021). The increases in consumer prices in 2017, and again in 2020, hardly enabled ZESCO to achieve a full cost recovery. This is because exchange rate depreciation kept the cost of imports and purchases from Maamba Coal and other independent power producers (IPPs), which were denominated in US dollars, below the selling price to consumers (Bayliss and Fine, 2020; Witworth, 2022). Consequently, ZESCO failed to service its debt, leading to the accumulation of substantial arrears. Several factors compounded ZESCO's supply problems. These included the persistent demands by politicians for increased access to the grid for local people, excessive labour costs and the constant breakdowns of its generation infrastructure (Levy and Palale, 2014).

By 2018, the share of hydropower declined from 94 per cent of total installed capacity in 2014 to 80 per cent in 2018, leading eventually to loadshedding amidst a drought in 2019. The government explained that low water levels had reduced the country's capacity to only about 1 400 megawatts, against a peak demand of 2 300 megawatts, and installed capacity stood at 2 976 megawatts (Nkhuwa, 2019). Things improved from 2021 onwards, owing to the additional 750 megawatts from Kafue Lower Hydroelectricity plant, and small HEP plants such as the Lusiwasi (12MW), Chishimba falls (6MW), Musonda Falls (5MW), Lunzua (750KW), Itezhi-Tezhi (120MW), Shiwangandu Mini HEP (1MW) and Kabompo (34MW) (Chabala and Chileshe, 2012; Radio Christian Voice, 2021). In addition, adequate rainfall in 2020 and the strengthening of the Kwacha in 2022, which made purchases from IPPs cheaper, enabled ZESCO's record surplus supply of over 1 000 megawatts in 2022, which was exported (Grindstone Television, 2022; Zulu, 2021).

Electricity pricing has also led to classification of society into four categories based on monthly consumption: a) 100 units or less experience the lowest tariffs; b) up to 300; c) up to 500 units and d) more than 500 units. The last three categories represent the cost reflective tariffs. However, in its 2022 tariff submission for approval to the ERB, ZESCO was demanding the reduction of 25 units for the lowest category's minimum consumption (which is exempted from cost reflective tariffs), to enable ZESCO meet its financial challenges. While ZESCO's call for increased funding is necessary, it overlooks other sources of revenue, in particular subsidies. Focusing on increasing tariffs for the people and the working class exaggerates existing poverty. Moreover, the minimum 100 units threshold is inadequate to meet the needs of an average family on the Copperbelt. Subjecting consumers of more than 300 units to cost reflective tariffs also overlooks the negative impact this has on local businesses that fall into this category and how this affects the prices of services and commodities they provide.

Modern Life of a Copperbelt Miner

From the inception of mining in the 1920s, Zambian mineworkers benefited from continuous electricity access alongside several paternalistic benefits (Rubbers and Lochery, 2021). Initially, the two foreign multinational companies that owned and operated the mines, Rhodesian Selection Trust and Rhodesian and Anglo-American Corporation, faced stiff competition for African labour from the mines in Congo. The mines in Congo offered higher wages and better conditions of service (Guene, 2017). To deal with this competition, and to have more control of their workers and their families, these companies responded by offering competitive wages and encouraging married recruits to come with their wives and children, and to build family homes to house them (Henderson, 1972; Rubbers and Lochery, 2021). From the mid-1930s onwards, faced with increasing protests from African workers and their families, the two mining companies responded by expanding the social infrastructure in the form of food rations, housing, healthcare, and recreation facilities for African miners and their families (Parpart, 1983). After the late 1940s, amidst a Second World War mining boom, demands by the newly formed African Mine Workers' Union forced these companies to further increase social infrastructure and began offering African mine workers long-term employment contracts (Henderson, 1972). Certainly, these benefits were inadequate and inferior to those offered to their white bosses, but were still far better than the living conditions in their original rural villages.

Zambia's independence, and the nationalisation of the mines in the late 1960s, which were merged in 1982 to form Zambia Consolidated Copper Mines (ZCCM), led to a further expansion of social benefits, in the form of free housing, children's education, water and electricity, diapers for miners' newly born children and burial costs for the dead (Fraser and Lungu, 2007). This state paternalism rested on the provision of stable long-term employment. By the early 1970s, about 60 000 employees worked in the mines in permanent employment, with pensions and insurance in case of injury or death (Fraser and Lungu, 2007). During the peak of employment from 1976 to 1991, employment in the mines declined by only nine per cent – a figure that includes retirements, deaths and termination on medical grounds (Fraser and Lungu, 2007). Labour subcontracting was limited to less than ten per cent of the ZCCM workforce, mainly in drilling, exploration and expansion (ZCCM, 1997). The Zambian government maintained these conditions through external borrowing amidst a sustained global decline in copper prices and the collapse of the Zambian economy from the mid-1970s onwards (Ferguson, 1999).

As Zambia's external debt became unpayable, and inflation eroded workers' wages, calls for a change of government intensified, leading to Zambia's return to multiparty democracy and elections in 1991. Following the change of government in 2000, the new government succumbed to the sustained pressure from the IMF to privatise ZCCM to secure debt forgiveness program. However, Zambia got very little by selling the entire ZCCM – which was valued at US$3 billion in 1991 – for only US$670 million (Kaunda, 2002; Balance, 2010). In addition, the privatised mines got various tax concessions including to carry forward losses incurred in one financial year into the next and to externalise profits out of the country (Fraser and Lungu, 2007). This, together with dodgy and shady financial practices, including transfer pricing, allowed these companies to operate and make profits without paying taxes (Gewald and Soeters, 2010; War on Want, 2015).

The weakening of labour laws undermined the unions and allowed companies to retrench thousands of workers at will (Lee, 2018a). Between 1991 and 2015, direct employment in the mines declined by about 60 per cent (Zambia EITI, 2017). In 2002, MCM had 8 500 direct employees compared to about 1 800 contractors. In 2021, Mopani had 5 000 direct employees against close to 10 000 on contract. In 2020/21, more than 5 000 contract workers lost their jobs immediately when MCM announced its plans to put its two mines on care and maintenance and terminated the contracts of the companies that employed these workers. The weakening of trade unions empowered mining companies to dismiss workers instead of compensating them for accidents sustained at work (Musonda and Pugliese, 2021). On top of that, mining companies withdrew workers' social welfare such as housing, water and electricity and free education (Mususa, 2021).

The withdrawal of social benefits has compounded miners' socio-economic lives because it coincided with wage inflation. Indeed, salaries for the lowest-paid workers increased from ZMK284 in 2000 to more than ZMK4 000 in 2022. However, the average cost of living in Kitwe for a family of five rose over the same period from ZMK272 to ZMK 8 500 (Musonda, 2021a). Based on these figures, 60 per cent of the direct employees at MCM received wages in 2022 below the cost of the average basic food basket. Amidst persistent retrenchments today, miners have more family members to support. In a survey that I conducted among 100 mineworkers selected at random in 2018, about two-thirds of respondents were each supporting no fewer than three extended family members, either directly or indirectly, by providing food or housing or contributing to the costs of education, clothing, healthcare or burial.

Miners turned to loans to compensate for their low wages. Between 2002 and 2015, the amount of credit available to these workers increased from ZMK 159 billion to ZMK 11 347.40 billion (BOZ, 2017). In 2017, for example, loans accounted for about 52 per cent of the total deductions from workers' payroll. At MCM, the percentage of mineworkers taking out bank loans increased from zero in 2000 to about 80 per cent of general payroll staff and over 60 per cent of senior employees by 2017 (Musonda, 2021a). This tendency to obtain loans to compensate for their low wages further undermine their net pay and their ability to meet the basic needs from one payday to the next.

Tariffs and everyday life

Recent analysis of electricity pricing in Zambia highlights the difficulties experienced by people and their businesses because of tariff increases (Maboshe et al., 2019; Bayliss and Pollen, 2021). According to Bayliss and Pollen (2021), the impacts of the 2020 tariff increase wiped off about six per cent of incomes for urban households and 23 per cent for rural households (Bayliss and Fine, 2020: 8).

This research found that due to the decline in wages (already noted), most miners also fail to afford to purchase electricity to meet their family needs from one payday to the next. As Kapambwe, an underground miner, husband and father of five, who was also looking after three of his retrenched brothers, complained: "I can only afford to buy electricity for ZMK150, enough for just over a week, when we need electricity worth ZMK500, for the rest of the month." Mpundu, a machine operator similarly lamented, "I buy power to use for lights only. For cooking we use firewood and charcoal." According to Mwanza, a boilermaker, "We only buy power for lights inside and not outside the house." This widespread practice exposed most families to criminal attacks. In Banda's words,

> You cannot leave anything outside in the yard and find it the next day. Sometimes criminals just come into your house and get whatever they want. If you have lights on, they can be scared that people will see them.

Kampyongo, an underground miner, explained, "Electricity price increases have taught us how to manage power. We only keep lights on only in rooms being used." This has led to conflicts on how to best use power. I witnessed this first hand when I visited Mwanza in 2017. When I arrived, he was yelling on top of voice at his children: "If I ever find the lights on during the day, I will kill one of you". His wife argued, "How can you kill someone because of a bulb?" Mwanza responded, "Do not support irresponsibility. The money we waste on electricity that is just wasted could be used to buy food and that would prevent us from borrowing expensive loans." According to Phiri, a driver, husband and father of five:

> Sometimes, my daughter would be cooking and leave the stove on when she is done. This is annoying. My wife has the same problem, and when I speak, they think I just like talking. This power is creating enemies within families.

Yet some miners resort to illegal connections to access power, risking prosecution. For example, in 2018, Kayombo, an electrician, stayed in police cells for a week for illegal connections. To get his freedom, Kayombo stated, "I paid ZM15 000. This is three times my salary." He borrowed this loan from a local moneylender at 50 per cent interest, repayable within a month, and a further 50 per cent interest on the outstanding principal-plus-interest in case of failure to repay within that month. He explained,

> In the first month, I failed to pay, the loan went up to ZMK 22 500 from the original ZMK 15 000. This went on until the amount reached ZMK 35 000. I got a bank loan to repay the loan.

It took Kayombo more than three years to recover from this loan entrapment. "I suffered to repay, I will never connect power illegally." Several miners said, "It is normal to illegally connect power. Just make sure nobody catches you." Unfortunately, illegal connections can lead to fires and sometimes electrocution. As Mabenga explained, "my daughter died from electrocution due to an illegal connection I made". Meanwhile his neighbour Mwambazi said, "My house caught fire due to an illegal connection, and [I] lost all my household property." Thus while illegal connections represent the cheapest way of accessing electricity, such actions increase miners' risks, including death.

In 2022, ZESCO also raised the new connection fees for joining the grid. Therefore, most miners who got loans to build houses failed to get onto the grid. For example, a single-phase overhead connection for high density areas rose from ZMK 769 to ZMK 3 510 and a three-phase overhead from ZMK 1 430 to ZMK 9 583 (ZESCO, 2023). As Mambwe, an underground miner, explained, "it is two years since I moved into my house; I have no electricity, because I don't have the money to pay for connections". Therefore, most miners depended on charcoal for cooking and candles and paraffin for lighting, which subjected them to other risks. Mwamba learnt this at his expense: "My children left the candle on after falling asleep which resulted in a fire and loss of most of our property." Mwisho, another underground miner, said, "after failing to raise money for connection and being frustrated staying in darkness and using firewood for cooking, I went back to renting". In this sense, the high connection fees frustrated miners' attempts to secure independence from company provisions and made their life even more difficult.

The historian Miles Larmer argues that the model of labour relations based on the standard employment relationship (SER) – a "supposed boom time and the higher living standards with which it is associated" – never existed on the Zambian Copperbelt (Larmer, 2017: 171; see also Scully, 2016). However, it remains a powerful concept in the minds of many Copperbelt residents. Larmer argues that Copperbelt miners have perpetually experienced precarity. This research found that, for miners who have no idea of what a SER in the Global North looked like, a free house in town with electricity and water plus several other benefits is enough to stand as a golden era. This becomes especially significant when compared to the hardships of modern life or life in their villages of origin (Mususa, 2021). As one miner said, "for me ZCCM was heaven. I cannot compare ZCCM life to Europe or America. I have not been there. I am comparing ZCCM life to that lived by people in rural areas and life today". Similarly, Chiteme, a boilermaker, said:

> ZCCM was a mother that properly looked after us [its children]. We had a house with electricity, and water so that we could rest enough and be ready for work the following day. Mopani does not care. They just want you at work.

The situation was worse for the miners who lost their jobs. Take, for instance Peter, from the introduction to this article. Upon his retrenchment Peter received only ZMK 5 000 (US$ 200) as a retrenchment package, which he used to repay outstanding loans. Peter thus went into unemployment with nothing to live on. His landlord evicted him from his rented house for failure to pay rent. He thus went to live with a friend. His wife and children went to live at her parents' home. His children dropped out of school. When I visited him in 2018, he told me that a married man who refused to take responsibility had impregnated his teenage daughter. "I now have to provide for a fatherless child and a daughter with a ruined future." He also lamented that his eldest son was in prison after stealing copper wires at the mine. Peter blamed his fate on ZESCO. "If they did not increase electricity prices, I would still have a job. All this would not have happened." He expressed nostalgia for both the ZCCM and previous employment under a contractor at MCM.

"During ZCCM, as a miner you could proudly look after your family. Wives and children respected their husbands/fathers. This is no longer the case". He complained that although his previous job paid him less and offered working conditions inferior to those at ZCCM, it was still better than unemployment. "Half a loaf of bread is better than nothing," he said.

These findings show that, in understanding what informs people's collective memory of life and what shapes their nostalgia, it is crucial to pay attention to their knowledge of their past and present and perceptions of their future. For the Copperbelt miners, their nostalgia about ZCCM also feeds into the critique of the company, which many workers describe as "irresponsible for the welfare of its producers". This critique of Mopani reflects a paternalistic moral economy, that is, a set of expectations towards employers that have to do with the subsistence of workers and which takes as standard the social policies of previous mining companies (Rubbers and Lochery, 2021). Workers criticise the new investors for breaking with the concern of their predecessors, ZCCM, for workers' social life and reducing it to a concern for their biological life. Borrowing Agamben's conceptual distinction, while paternalism allowed them to aspire to a certain conception of the good life (bios, or the life worth living), their employment insecurity with Mopani reduces their prospects to bare physical existence (*zoë*, or bare life) (Agamben, 1998). More than the difficulties of paying for power and connections and the nostalgia this brings about, miners are especially concerned about how increasing electricity prices deepen their vulnerability to retrenchments, a point to which I now turn.

Tariffs and employment

In April 2017, ZESCO proposed the introduction of a flat tariff of 9.30 US cents/kWh, backdated to January for mining companies, to replace the individually negotiated rates that averaged six US cents/kWh. In response, on 12 August 2017, Mopani suspended operations in several of its plants, arguing that the increase raised its production costs by 51 per cent and resulted in losses of three million US dollars per day, making its mining operations unviable (Reuters, 2017; Chaima, 2017). Mopani challenged the new tariff in courts and cancelled contracts for its subcontractors, threatening jobs of close to 10 000 contract workers (Mweetwa, 2017). In addition, Mopani threatened to retrench close to 5 000 permanent workers.

After a few days, the government intervened by advising the two parties to settle the matter out of court. During this process, the unions remained powerless, restricting themselves to pleading with the government in private. As one unionist said: "We can do nothing as unions when the company raises issues of profitability." The case illustrates how the state and the unions are complicit in allowing capitalist accumulation at the expense of its citizens. As Gordon and Webber (2008) note, the creation of new spaces of accumulation is inevitably characterised by the forceful and violent reorganisation of peoples' lives and subordinating them to the whims of capital. This finding contributes to recent debates about the relationships between state power and that of corporations (Williams, 2010; Irogbe, 2013). This causes fear, anxiety and vulnerability among workers.

As Mwansa, a contractor whose company had been suspended during this period, lamented, "I was scared to turn the radio on or even to meet work colleagues. I just stayed at home because I did not want to hear that we have been laid off." Mwangala, a direct employee and electrician at Mopani, said, "We were all anxious because Mopani threatened to retrench us." He added, "Some miners went to pastors for prayers, others sought protection from witch doctors including sleeping at the graveyard, while others started wearing their wives' pants believing that that would protect them". Mybeg, an underground miner said, "Today losing a job is the easiest thing that can happen to someone. I was sleeping after night duty. I wake up only to find operations in my section suspended and I have no job".

Several miners said at the time of the announcement that they had developed hypertension. Some miners with diabetes saw their blood sugar levels elevated. According to Simalyata, a loader driver, "both my blood pressure and sugar went up. I just remember telling my friend that I am not feeling well. When I woke up twelve hours later, I was in the hospital bed." Kapembwa, who had an outstanding debt and whose loss of employment would have implied loss of retrenchment package to banks, said: "For me, I was just contemplating suicide because I was not going manage losing a job and incomes. Thank God, this did not happen." During a follow up interview in 2022, Mwansa said, "I don't want to hear anything about electricity price increases for mining companies because this to us means loss of employment." The narrative of Kangwa, an underground miner, is representative of many's views: "For us [miners], electricity tariff increases are not just about blackouts, cooking with firewood, or rotten food or goods for sale in the fridge. It is also about jobs."

Miners also expressed frustrations about mining companies' growing power and influence over the government and the unions. According to Miyambo, a machine operator, "Privatisation of the mines has given more power to companies and weakened the state and unions. They have to obey the commands of the companies instead of the opposite." His colleague Mwila added: "The government is in a very weak position. If they insist on the increased tariffs, Mopani will close down. When people lose jobs there will be chaos on the Copperbelt and the ruling party will lose the next elections." Similarly, workers blamed the union for being weak and compromised (see also Pitcher, 2007; Uzar, 2017; McNamara, 2021, 2022). Yet others believed that the state and the unions still had power to discipline the mining company. "A company cannot be more powerful than the government and the unions. The government can take over the mine if the foreign companies go", argued Katongo, a boilermaker. Mweetwa, an underground machine operator, similarly argued, "The government cannot act tough on Mopani because they have been given kickbacks." According to Chilekwa, an electrician, "Our leaders don't just care. Mining companies do not pay taxes, and they are allowed to retrench workers." Kambwili, a drill operator, said, "Our leaders betrayed us by selling ZCCM to these greedy foreigners who are just concerned with profits. ZCCM cared for the whole family because it understood that an unhappy miner cannot produce." According to Mabumba, a mechanic, "When the government sold ZCCM, they sold our lives to the devil."

The persistent threat of retrenchment fuelled significant uncertainty. Musonda, a drill operator, complained: "When you go for work in the morning you don't know when you will knock off if you will have the job. This is also the case when you go home to sleep." Several participants shared Musonda's observation. For instance, Kayombo, a machine operator, said, "Whenever I hear about electricity prices I want to hear whether it affects the mining companies. Life is so uncertain nowadays". Maybin added, "I have been retrenched three times. So every time I hear about copper prices, electricity prices and Covid-19, I feel very bad." The uncertainty recalls what Bourdieu described as a "subjunctive habitus" (Bourdieu, 1977: 53) of repeated experience of uncertainty and sudden changes. This uncertainty undermines people's ability to effectively plan. As Mususa argues, this leads people to adopt provisional plans which "involved placing ideas and doing things 'out there' and seeing what happened next, with the expectation that the most unrealistic might bear fruit, because the most realistic ones often came with crushing disappointment" (Mususa, 2014: 71). As we have seen, for Zambian mineworkers, electricity pricing is more than blackouts and the associated effects, but also about employment uncertainty.

Conclusion

This article shows that mineworkers, although many in Zambia consider them "privileged" workers, also struggle to afford the cost of electricity following the withdrawal of these social benefits by the privatised mining companies. These included free housing and maintenance, water and electricity, children's education, birth grants, community maintenance, public sanitation and burial costs for the dead. In addition, wage inflation, debt and increased family responsibilities eroded their wages, making it difficult for them to meet the cost of living from one payday to the next, and even to afford the cost of electricity. The struggle to ensure efficient use of the limited power available leads to conflicts about the efficient use of electricity at household level, an increasing use of dirty fuels such as charcoal and firewood, and increased vulnerability to criminality among other issues. Compounding this reality is the employment uncertainty associated with increases in electricity tariffs for mining companies (their employers) who retrench workers to minimise production costs.

For mineworkers, therefore, increasing electricity tariffs leads to a double precarisation of labour and of social reproduction. This happens when the privatisation of public goods and services individualises the ever-rising costs of social reproduction for poorly paid workers, ultimately resulting in precarisation of individual and collective agency, a decline in the quality of life, and conflict (Candeias, 2008). This is what Von Holdt and Webster (2005, cited in Bezuidenhout and Fakier, 2006: 464) describe as "the breakdown of social solidarity, intra-household and community conflict, substance abuse, domestic violence, and the proliferation of other crimes". This research builds on labour studies that focus on precarity generally, and specifically those that highlight the double precarisation, by highlighting the experience of mineworkers who are generally understood as the most privileged workforce. In addition, while recent mining studies highlight how retrenchment and subcontracting lead to growing precarity and uncertainty of life, little attention is paid to the permanently employed, unionised direct employees (Mususa, 2010, 2021; Benya, 2015; Rubbers, 2017; Lee, 2018b).

This article has addressed this gap and shown that the withdrawal of social provisions such as housing and state subsidised electricity, combined with low wages and inflation, has worsened the lives and material conditions of mineworkers, intensifying precarity in social reproduction, while privatisation, as a tool of the neo-liberal dispensation, has deepened employment precarity and uncertainty for the supposedly protected workers.

Lastly, the consequent double precarisation of labour and social reproduction highlights the increasing employment uncertainty and the associated negative social consequences at household level. Future labour research needs to consider the entwined nature of the domain of social reproduction and the workplace.

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