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EXPERIENCES OF WOMEN WORKERS IN THE AFRICAN ROAD TRANSPORT SECTOR

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ABSTRACT

Male identity and motor-mobility are deeply intertwined across much of the globe but nowhere is this relationship more strongly in evidence than in Africa. On the African continent, road transport work has always appeared, in essence, to be a masculinist domain it is almost always men who are seen driving commercial vehicles, regulating loading activities in the lorry and bus parks (and now the motorcycle stages), undertaking roadside repairs, vulcanizing tyres, even serving fuel. This does not mean that women are entirely absent from the sector, but their place is commonly peripheral constrained at least in part by hegemonic norms of femininity that shape women's self-understandings. They typically supply cooked food, alcohol and sex to male road workers, or take on back-breaking work in the lowliest - and lowest paid - of porterage roles, head-loading goods along the road, carrying materials when assisting men making and mending roads, or loading vehicles. From time to time, women have aspired to infiltrate more lucrative areas of the sector, especially through ownership of commercial vehicles, but their closer engagement with the oily nuts and bolts of the road business remains rare.

This chapter draws on a wide range of published and grey literature and some personal ethnographic research from a diversity of African countries and contexts to examine women's efforts at engagement in the sector. The discussion spans women's employment in road transport services (porterage, ticket-selling, taxis, buses, BRT, commercial trucks) and the road construction that supports transport service operations (engineering, planning, contracting, labouring). We pay particular attention to the factors that so often continue to impede women's progress in these arenas. The concluding section first references COVID-19 and its detrimental impacts on women's transport workers' jobs, then considers the potential for overcoming current barriers and promoting a more central space for women in transport operations, a development that could provide significant benefits across the sector.

INTRODUCTION: THE IMPACT OF PREVAILING CULTURES OF MALE AUTOMOBILITY ON WOMEN'S PLACE IN THE TRANSPORT SECTOR

As Mimi Sheller observes (2018: 74), "Analysts of automobility still underemphasize the extent to which historically dominant forms of white, male, elite automobility shaped modern infrastructures of ... mobility and limited the access of others to its privileges ...". This is nowhere more evident than in Africa. Male identity and its connection with motor-mobility is a persistent story across the continent and extends to both vehicle ownership and operation: vehicles are a source of social status and prestige. Working in the road transport sector has always appeared, in essence, to be a masculinist enterprise: it is almost always men who are to be seen driving commercial vehicles, regulating loading activities in the lorry and bus parks (and now the motorcycle stages), undertaking roadside repairs, vulcanizing tyres, even serving fuel. They also constitute the majority of road engineers and planners.

This does not mean that women are entirely absent from the sector, but their place is commonly peripheral - constrained not just by typically poorer access to monetary resources and education but also at least partly by hegemonic norms of femininity that shape women's self-understandings. They typically pursue jobs that mirror women's common domestic roles, supplying cooked food, alcohol and sex to male road workers, and taking on back-breaking work in the lowliest - and lowest paid - of porterage roles, head-loading goods along the road, carrying materials when assisting men making and mending roads, or loading vehicles. All of this is widely accepted as 'women's work'. From time to time (mostly elite or urban middle-class) women have aspired to enter more lucrative areas of the sector, especially through ownership of commercial vehicles, but their closer engagement with the oily nuts and bolts of the road business remains rare. Men still commonly perceive themselves to have a clear 'right' to the road if they are driving; to the front seat even as a mere passenger; and to all the appurtenances surrounding transport operations. Men also underpin the transport sector through their dominant roles in the engineering professions, including work in road planning and road construction.

Male discourse used to preserve their dominance not only references women's place (at home, bearing and looking after children) and their relative 'weakness' compared to men, but also encompasses women's vulnerability (to rape and harassment) and potential promiscuity (Porter 2011). Some examples from personal field studies illustrate this point: In rural southern Ghana, a group discussion with men led to the following statement from one of the party "I think a woman who travels a lot is befriending other men and that's why she travels": the statement was affirmed by the

remainder of the group. Similarly, in a women's discussion group in Kilolo, Tanzania, a woman bemoaning her lack of mobility observed: "I am a victim of barring... We choose marriage over travel." It is further important to note how women may also internalise male attitudes: women in another Kilolo focus group variously observed, "We are weak, which is recorded in religious books that we are from men and cannot equal them in any way"; "Men and women are not equal in terms of strength since we get to be pregnant or breastfeeding". Negative male attitudes to women's engagement with travel and transport (and some women's compliance with that attitude) inevitably reinforce constraints on women's potential to engage with the transport sector, whether as users or workers. At the same time, it is useful to reflect briefly on the ironies concerning male perception of women's transport-related competencies: a women may be strong enough to carry 63 kg of firewood and a baby over a distance of eight km (when this work is undertaken in the company of other women) but is considered too 'weak' to operate a market push truck (Grieco et al. 1996: Porter, Blaufuss & Acheampong 2012)! Much male discourse and their associated actions could arguably be viewed, in essence, as male manipulation of moral panic: women's incursions into the transport sector are represented by men as threatening the values, interests, and well-being of society as a whole, when if fact they merely threaten male interests, status and incomes.

The discussion that follows draws on a wide range of published and grey literature, but also references some personal ethnographic research in anglophone countries in west, east and southern Africa, mostly conducted pre-pandemic. We aim to provide a broad overview of women's efforts at engagement in the sector and the factors that so often continue to impede their progress, firstly with reference to road transport services, secondly with reference to road construction and maintenance (an essential support to transport service operations). The concluding section firstly discusses COVID-19 impacts, which appear to be having a particularly detrimental effect on women's employment in the sector. It then reflects on overall progress in gender mainstreaming in employment in Africa's transport sector and the potential for overcoming current barriers and promoting a more central space for women in transport operations, a development that could provide significant benefits across the sector.

WOMEN'S DIRECT EMPLOYMENT IN TRANSPORT SERVICES: FROM TRADITIONAL PORTERAGE TO TAXI, MINIBUS, BRT AND TRUCK DRIVING

There is a paucity of sound statistical data on the proportions of women working in the various transport service sub-sectors in Africa discussed below, in part because much of this work, particularly in road transport services, is in the informal sector. However, in every subsector, with the significant

exception of pedestrian porterage, with some confidence we can suggest that women have, until recently, represented only a small minority of the total workforce and still mostly occupy unskilled positions. While employment in transport services can offer substantial opportunities for women, currently there is much discrimination that impedes their entry into the sector. Mwangi (2013) reports that in Kenya, for instance, women comprise just 13.6 percent of informal transport owners and only 5 percent of transport service employees. A 2020 report highlighted the fact that this latter number had still only risen to 10 percent of the public transport industry labour force, with 85 percent being matatu conductors in the Nairobi metropolitan area working long hours for very low pay (Flone, 2020). In South Africa women had been faring somewhat better, with some managing to enter maledominated areas, especially as drivers in both informal and formal sectors (discussed further below). Following a substantial increase between 2017-2018, an estimated 20 percent of all workers in the transport sector were reportedly women in 2018 (Wright 2018). However, even if women find employment in the formal sector, they may face considerable discrimination, ranging from lower pay and lack of skills training and promotion opportunities to sexual harassment and gender-based violence, as evidenced by Wright (2018) in Cape Town and Nairobi and in ongoing research in Tunis, Abuja and Cape Town with drivers and conductors (Porter et al. 2021)ⁱ. Harassment, the lack of public toilets in urban locations and dangers of night working are among the issues regularly reported by women workers.

For very poor women, in both urban and rural areas, *porterage* work often offers a culturally acceptable employment niche, since domestic load carrying is such a common female activity in many African cultures (see Barwell & Malmberg Calvo 1989 for Tanzania; Porter et al. 2013 for Ghana and Malawi; Tanzarn for Uganda 2013). Girls and young women in coastal Ghana, for instance, regularly carry loads of 20-30 kilogrammes both for domestic and commercial purposes. Indeed, this is women's most common form of employment in the transport services sector. However, when transport technology is introduced, boys and men tend to take over transport tasks (and associated income), as in rural North West Province, South Africa, where much water transportation is now done by boys, using donkey carts, and in rural coastal Ghana, where an action research project found that transport equipment ostensibly acquired by women was taken over by male family members (Flanary 2004; Porter, Blaufuss & Acheampong 2012).

By contrast, women's employment in Intermediate Means of Transport and motorised transport services is very sparse, especially when it comes to driving, where women face significant stigma; moreover, most women lack both the funds to pay to learn to drive and the time to do so in the first place. Consequently, although wealthier urban women often purchase vehicles for use as taxis in the informal sector (a potentially lucrative business) many employ male drivers for their motor- and

motor-cycle - taxis, a fact supported by field research in southern Ghana in the 1990s through to 2017, on the Jos Plateau, Nigeria (Porter 2011, re women motor-cycle taxi owners) and ongoing field research with colleagues in Abuja, Nigeria. In both countries, women drivers remain in the minority. By contrast, many women may be seen working around transport service hubs and to a lesser extent on informal and public sector transport services across Africa, but those employed in the sector are mostly confined to the lowest paid work, such as cleaners or conductors/ticket sellers. Their experiences are largely undocumented (but part of the ongoing study in Abuja, Cape Town and Tunis noted above).

Occasional reports have highlighted women *taxi drivers* with independent businesses in Africa, such as Ghana's Miss Taxi (a graduate who started a business operating between Accra and the international airport) but these are, in essence, feted tokens! The few women who work as taxi drivers in Abuja, Cape Town and Tunis interviewed in 2019 as part of ongoing research led by the first author of this chapter, tend to be driving vehicles that either belong to a relative or have been inherited. They reported regular harassment and bullying from their male counterparts and occasional harassment from passengers, the latter encompassing both sexual harassment and theft; hijack is a significant threat in both Cape Town and Abuja; additionally, there may be shame associated with community disapprobation: not being 'a proper woman' (Porter et al. forthcoming; see also Khosa 1997 and Nkete 2015 for South Africa). For the most part it seems to be women in precarious economic circumstances (particularly widows and divorcees) that have pursued such work for any length of time: a matter of necessity not choice. Many comment that it requires enormous determination to keep going in this work, though some also observe that, despite all the hazards they face, they simply love driving! One woman taxi-driver interviewed in Cape Town who had also spent some time as a bus driver reflected, 'I didn't feel the bus was right. I belong to the taxi.... It must be inside you, you must love your job.'

These constraints on women's work in taxi businesses appear to be ameliorating somewhat with the advent of mobile phones. In particular, this is encouraging more women into the urban commercial transport sector, through work for *ride-hailing services* such as Uber and Bolt, especially in South Africa, Kenya and Nigeria, where ride-hailing operations have expanded dramatically over the last five years. For those women fortunate to have access to a suitable vehicle and a smart phone, ride-hailing business can be particularly attractive since it enables them to select their customers in advance, and has the added security of GPS tracking and guaranteed (cashless) payment. However, less well-resourced women who are renting a vehicle for this business (i.e. are not owner-operators) may have to work very long hours to make a reasonable return: dangers of fatigue and accidents must be substantial (though a broad study of Uber accident rates in South Africa by Huang et al. 2019 does not find any significant change in overall traffic-related deaths at provincial level since the introduction of

Uber). In South Africa in 2018, reportedly about 3.8 percent of Uber drivers were women, and 73 percent logged in every day (2018). In Nairobi, 10 percent of drivers are reportedly female (Wright 2018:83). Even so, in both countries many are still concerned about safety (Reuters 2018).

Most recently, a small number of *female-only ride-hailing services* have also emerged, as entrepreneurs recognise their potential, especially in African cities with high levels of sexual harassment on public transport. In Nairobi, for instance, one which serves only women and young children seems to be acting as an incentive for more women to learn to drive and enter the business and clearly has potential application in other African cities [CGTN Africa 2018]. Nairobi's female-only service LadyBug (established around 2016, run by Little Cab and backed by Safaricom) serves only women after 6pm (Amos 2016). This service allows passengers to request a 'professional lady driver' and after 6pm this service is only available to women. Little Cab reports strong demand for the service, with more than 300 female drivers active on the app. Claimed as a world-first for ridesharing, riders can request Little Cab without needing a smartphone app. Another female-only ride hailing app in Nairobi, AnNisa, launched in 2018, boasts 300 female drivers. A 2019 interview with AnNisa founder Mehnaz Sarwar illustrates its appeal: "as a Muslim woman, I wanted to be driven by a fellow woman which was rare to find." Many women of all religious persuasions (or none) may feel safer and more comfortable being driven by a fellow female (World Economic Forum/Quartz 2019).

When we turn to the motorcycle taxi sector, entrepreneurial well-resourced women have moved into the business as owners, but operations are still seemingly almost ubiquitously operated by young men, for whom this is often a very lucrative enterprise (Mwareya & Kalima 2021). Motorcycle taxi operators (termed 'riders'), now provide a substantial and growing component of informal transport services across Africa, especially in urban contexts (and despite a variety of government restrictions associated with concern regarding high accident rates and the disruptive potential of unruly mobile urban youth). Occasional reports emerge of women trying to enter this very lucrative business – for instance there are reportedly just four female moto-taxi drivers out of a total of about 20,000 in Kigali, Rwanda, but progress is extremely slow (Gashumba & Tianran 2021). A recent study in Liberia and Sierra Leone (Jenkins et al. 2020) explores the potential for women to obtain motorcycles for commercial use on credit, based on the argument that many women would prefer to travel with a female rider given the notoriety of male riders taking advantage of women passengers. At the same time, however, they note the barriers women identified, in particular the lack of friends or businesses willing to rent motorcycles to female operators: this and observations elsewhere suggests that there is little likelihood of any rapid expansion of women's employment in this arena in sub-Saharan Africa. By contrast, tricycle taxis are providing employment for some women owner-drivers in urban locations, notably in Nigeria (where they are known as KekeNAPEP, having reputedly been imported as part of the country's National Poverty Eradication Programme when motorcycle taxis were banned, as an alternative income source for unemployed youth). In Oyo state, for instance, some have been loaned out to women, in association with a microfinance bank and a driving school (Alimi 2021). Less expensive to purchase than conventional taxis and often available on hire-purchase, they enable lower passenger fares, are moderately easy to operate and ongoing research in Abuja suggests they are viewed by many women passengers as a safer travel option than motorcycle taxis.

Women *bus drivers* are still relatively rare across Africa, though a number of companies have employed women for some years in South Africa (Komane 2013); there have also been various recent initiatives in the formal sector to expand women working in this role elsewhere. In Harare, for instance, there has been a significant expansion of women bus drivers since early 2019 following the revival of the parastatal Zimbabwe United Passenger Company (Zupco) (Matiashe 2020). In Lagos, Nigeria, 80 women were employed in 2014 by LAGBUS, part of its efforts to empower women. All were women who did not know how to drive, but were prepared to undergo training (first with cars, then smaller buses and finally the big buses). Interestingly their campaign linked up with Miss Taxi Ghana (referenced above) because she was seen as a driving force in efforts to improve the gender balance in public transport. Encouragingly, 200 women applied for this work (Olowoopejo, 2014). However, as with taxi driving, female bus drivers face considerable challenges, especially around obstructive passenger behaviour and schedules that are detrimental to their child care responsibilities. Nevertheless, there is growing recognition in business management that female driver recruitment is potentially valuable: women are perceived as safer drivers, to drive more defensively, and to be less aggressive in traffic (Wright 2018: 54-55; Bonsu 2019).

The expansion of *Bus Rapid Transport (BRT) networks* in a growing number of African cities may offer greater employment opportunities for women to work in the formal transport sector in the future, precisely because it is a new sector where male-dominance has not yet been established. Evidence to date is encouraging: MiCiTi in Cape Town, for instance, had 52 female bus drivers (supported by sponsored learnerships), 12 female dispatch operators at its depots and two female technicians at work by October 2018 (Petersen 2018). In Accra, Scania provided 300 buses to establish the planned BRT and, together with GIZ, founded a transport academy (March 2018) to train 600 bus drivers, at least 10 per cent of them women. A 'Female Drivers Campaign' refers to subsequent employment opportunities with the Greater Accra Passenger Transport Executive (GAPTE) (Bonsu 2019). While delayed due to the COVID-19 pandemic through 2020 and 2021, the BRT in Nairobi is similarly predicted to expand women's opportunities (though this will, of course, be highly dependent on provision of appropriate skills training to women). Thus, there seems to be some potential to build a critical mass of women workers in BRT, though this employment trend may also have some potential

to promote cost-cutting and lower wages for all (as noted by Wright 2018 with reference to newer companies offering poorer terms and conditions in the Cape Town MiCiTi case). It may also result in the loss of women's work in the minibus sector if BRT brings job losses in the informal sector. Moreover, it is important to note that BRT systems are limited in operational scale and thus unlikely to offer a significant proportion of jobs in terms of overall transport employment in any African city in the near future.

Women commercial truck drivers appear to attract particular stigma because their work often involves inter-city mobility, but there is some evidence of changes in attitude, particularly in South Africa, where a shortage of trained truck drivers (partially associated with HIV/AIDS impact on this sector) first led to efforts by companies to recruit (black) women for the role. A study by Naysmith and Rubincam (2012) reported that some haulage companies found they were safer, more conscientious, drove more efficiently, and exhibited less risky behaviour (e.g., regarding STDs): 'the ladies, they take care of their vehicles – a truck can go an extra 1,000 kilometres if a lady is driving it'. Women drivers in this study reported positive experiences (money, family praise), but safety remained a big concern (breakdowns, hijacking, armed robbery), requiring measures such as careful selection of parking locations. Additional costs related to pregnancy and the requirement to offer segregated bathroom women as HGV drivers has occurred and in 2019 Volvo established the Iron Women heavy-duty truck driving school (following prior experience in Peru), on the basis that women are more responsible drivers, involved in fewer traffic accidents, use less fuel, and, therefore, reduce maintenance costs (Vivier 2020). Further promotion of women's potential to obtain work in this sector has occurred in the pandemic, due to the undersupply of qualified and skilled truck drivers in South Africa: this has encouraged an effort to train female owner-drivers in the AccelerateHer programme (Volvo Trucks 2021; Truck & Freight 2021). Elsewhere in Africa, similar recent initiatives have occurred, including in Ghana, where a company has been formed in Takoradi that employs an all-women tanker driving team (Knott 2019). This team drive petroleum tankers from Takoradi port to Ghana's gold mines – a journey of up to 7 hours. The plan seems to have been developed due to previous negative experience of male drivers siphoning-off petrol. Women drivers are being trained by Skania and the Ghana army transport corps; one female mechanic is also employed to work on the tankers. Such initiatives are likely to expand, since mobile phones now present a significant and expanding tool for aiding the safety and scheduling needs of women commercial drivers.

ROAD CONSTRUCTION: WHAT POTENTIAL TO DISRUPT MASCULINST ENTERPRISE

Alongside transport services, there has been similar long-standing male domination of the transport infrastructure sector across Africa (and world-wide). This section on women's employment in road construction spans diverse areas, from road planning and engineering to skilled and unskilled labouring roles.

As in the case of transport services, remarkably few women across Africa are employed in skilled positions, for instance as road planners, engineers and surveyors. Just 10 percent of the engineering workforce is reportedly female in South Africa and 8 percent in Kenya (Nyangueso et al., 2020; Njenga & Tanzarn 2020). Nyangueso et al. (2020) found that in a 2016 sample of seven Kenyan rural transport institutions at national and county levels, women constituted just 23 percent of over 1600 permanent and contracted staff (despite a constitutional requirement for public sector employment that women have a minimum of one-third of posts). Of 485 technical staff, just 16 percent were women. The majority of women serve as support staff. At a decision-making (executive and management) level, men held 81 percent of positions. This, they suggest, is partially explained by the low number of women who enrol for engineering courses (just 19.5 percent of BSc in Civil Engineering students enrolled at the University of Nairobi, 2016/17). It can be further attributed to low numbers of girls taking the pre-requisite courses of Mathematics and Physics, with one study of inequity at African universities blaming this on socio-cultural practices prioritizing male versus female education, traditional representation of science and mathematics as male domains, and unsupportive science and mathematics teaching environments at the secondary level (Fredua-Kwarteng & Effah 2017).

Similarly, low levels of enrolment are found across sub-Saharan Africa: in Uganda, for instance, women constituted only 17.6 percent of civil engineering graduates in 2012 (Tanzarn 2013). Some African universities are implementing affirmative action strategies to boost women's enrolment such as admission quotas, priority consideration, academic upgrading (which lowers the bar for female candidates with credits closer to the required admission standards) and conditional admission (Fredua-Kwarteng & Effah 2017). This, however, focuses more on enhancing gender parity and neglects gender equity; it fails to address underlying social issues. The systemic challenges to female engagement with the sciences at secondary school level remain. Further challenges follow graduation: women report gender discrimination, sexual harassment, and challenges to leadership for women in engineering, as evidenced in a Nigerian study on women engineers (Longe & Ouahada 2019).

Unsurprisingly then, despite ongoing efforts to encourage more women-owned road contracting businesses, especially in labour-based SMEs, progress to date has been slow. Women mostly lack

relevant training and finance to enter what is still perceived as a male domain. In South Africa, however, over the past two decades, the number of women-owned construction businesses has grown significantly, with government support: Groenmeyer (2011), for instance, presents the story of a woman contractor; one of three woman-run enterprises that successfully obtained work on the South African portion of the N4 toll road to Mozambique. Nevertheless, issues remained around the dependence of Small Medium and Micro Enterprises (SMMEs) on the public and private sectors' ability to provide an enabling environment for them to access financial assistance for work on the N4 (Havemann 2001). SMMEs reportedly had to find their own bridging finance to start up their contracts, which severely limited the number of women involved: over the three-year period of construction only two women were in management, 20 in semi-skilled and skilled and 113 in unskilled positions. In total, they represented only 6 per cent of total SMME involvement — 94 percent was taken up by men (ibid 2001).

Experiences of women contractors in Nigeria and Zambia further illustrate the challenges women face. In Zambia, where there is an Association for Women in Construction (ZAWIC) government has reportedly allocated 30 percent of local road-tendering contracts to women in various contexts (for instance, through the Road Development Agency in 2015 and for maintenance contracts in Northern Province in 2020 - see SmartEagles 2020). However, there is little evidence of women's success in obtaining contracts to date (see Nation Reporter 2021). In theory, women contractors are also being encouraged in Nigeria. Again, however, success seems likely to remain sparse, given the limited government training available to women, and when (as is sometimes the case) training seems to be restricted to an (unclear) category of 'nominated women', success in tendering looks unlikely. Here it has been argued that although national procurement law does not allow discrimination, cultural/religious constraints plays a big part in deterring women (informal discussions with ministry staff, 2016). In Tanzania's Kibaha District, Mulongo et al. (2020) found a rare case of a successful female contractor - a woman in her early 40s with a PhD in finance running a small company with seven staff, including three women (but these are office staff with the exception of one female quantity surveyor). In Uganda, Njenga and Tanzarn (2020) report that none of the civil engineering consulting firms is owned by a woman.

Kenya, by contrast, may be among the better performers in this arena: among contractors awarded road contracts in Murang'a region by KeRRa [Kenyan Rural Roads Authority], women directors were estimated at 35 percent (though most are said to be likely spouses of a second director, and their inclusion is possibly aimed at responding to the government affirmative action policy that extends to procurement opportunities with a 30 percent quota) (Nyangueso et al. 2020). Furthermore, as one study on corruption in Kenya highlights, funds and contracts tend to go not to the best proposals but

to those proposals that have 'sponsors' within the agency in charge (Ngunjiri 2010; Kariuki 2015). Tribalism, nepotism and bribery play a big part in the Kenyan entrepreneurial landscape, particularly in human resource management and procurement. Government jobs and tenders have become lucrative spaces for amassing wealth quickly (Ndaka 2017) and the competition for them is fierce. In ongoing research by the second author, a respondent cited an incident where she was summoned by a representative of a prominent politician and politely instructed to 'back off' from a road project despite her lobbying efforts, because a relative of the politician owned one of the competing companies. Across Africa, it looks as if better training opportunities and a more equitable playing field will be needed before women are to build successful careers as road contractors.

The one area where women are more in evidence in road construction is as unskilled employees. Road construction and maintenance operations now regularly employ women in labour-based construction, where there is growing acceptance of quotas for women, especially when these are promoted in donor road programmes. However, women are often employed on a temporary basis in schemes focused on assisting vulnerable groups and it is still difficult to ensure that they benefit. Discrimination against women ranges from lower pay and lack of skills training and promotion opportunities to sexual harassment and gender-based violence (Devereux & Solomon 2006: Tanzarn 2019). Substantial issues also remain around contractor avoidance, which requires careful monitoring and enforcement. In Kilolo district, Tanzania, for instance, research in 2016/17 suggested that women were rarely successful in obtaining work. One male contractor when interviewed argued that he could not employ women because of the need for speed in completing the project: They [my workers] are all male due to the nature of our work which requires muscles... I opted for men only to avoid delays. An earlier example is the Tshitwe road upgrading from gravel to bitumen surface, in South Africa (Mashiri & Mahapa 2002). This was a community project where women were allocated work but this was largely menial, such as carrying stones; men did the higher skilled jobs, and were paid much higher than women. It was further observed that maintenance would likely be a problem in the future given that, other than carrying stones, women - who would be expected to help in the maintenance exercise - did not learn any skills that would be useful for maintenance.

CONCLUSIONS: COVID-19 IMPACTS AND THE POTENTIAL FOR BUILDING A MORE CENTRAL SPACE FOR WOMEN IN AFRICA'S ROAD TRANSPORT SECTOR

Prior to COVID-19, women's employment, across both transport services and transport infrastructure, was bedevilled by a range of inhibiting factors, extending from sexual harassment, lack of access to lavatories and the stresses of juggling work with child care and other domestic duties, through to low

wages, lack of training opportunities and negative attitudes regarding women's technical capacities. These factors have often militated against women taking active roles in the sector. COVID-19 has brought further deterioration in women's employment opportunities in this as in other African labour markets. An early indication of potential impacts of the pandemic on women's employment in the transport services sector came from a small survey of 30 women in Nairobi, conducted by the Flone Initiative in June 2020. They reported that just over half of the women surveyed in the matatu sector had lost their jobs as a result of matatu owners closing down their business due to restrictions imposed to contain COVID-19: these women had to rely on former colleagues to access temporary jobs, such as helping conductors fill the vehicles; some had been asked for sexual favours in return (Flone 2020). Elsewhere there have been many reports of increased costs of vehicle operation, especially restrictions on carrying capacity to ensure some social distancing, cleaning and sanitising costs, bribes to regulatory authorities (for instance when contravening curfews) and increased costs of imported spare parts, all inevitably reducing profitability for owners and drivers and resulting in both business closures and job losses (Flone 2020; Dalkmann & Turner 2020; International Transport Workers' Federation 2020; Porter et al. 2021). In Abuja, members of the Female Drivers Association closed their businesses for a time, while in Cape Town townships, the loss of school transport contracts during lockdowns severely impacted some women who had built good businesses in this area; in both cities women's emotional stresses of risk at work (especially for those in customer-facing and cleaning roles) have combined with massively expanded household demands (obtaining food, caring for the sick, childcare and supervising schoolwork) (Porter et al. 2021).

The limited access to COVID vaccines in Africa, the expansion of private car use due to concerns about disease transmission on public transport, and the move to home-working among better-resourced middle-class workers with good internet access and work flexibility, all seem to be delaying the revival of pre-COVID levels of employment in the road transport sector. As vaccination rates rise and COVID infections decline in severity, however, we can expect to see a positive upturn in the sector. Hopefully this will also be accompanied by some remaking of the post-COVID transport environment: ideally one more focused towards low-carbon transportation and more sensitive to women's needs (both as users and transport sector workers).

Women's exclusion from employment in the transport sector has often, in essence, been time-based and fear-based. Thus, women's advancement as employees, at the most basic level, will require a range of measures, starting with improved access to creches and appropriate child care, stronger consideration of women's needs for flexible working, and provision and maintenance of public lavatories and improved, well-maintained lighting around transport hubs. Women's information

offices at transport hubs could facilitate presentation of concerns and grievances. Given that sexual harassment cases are particularly difficult to resolve in work environments where women are in a minority and have to continue to work with perpetrators, greater focus on unionisation among women workers is likely to be crucial (Wright 2018:99-106)ⁱⁱ.

At a strategic level, better skills training is urgently needed in both transport services and road infrastructure sectors to support future improvement in opportunities for women in job acquisition and career promotion. Support to women's entrepreneurship in areas such as road contracting and high quality, innovative transport services needs to incorporate microfinance and financial management training. In the formal sector, gender should be integral to all training/learning programmes – for men as well as women - so that gender awareness is integral to the mobilisation process, helping to break prevailing retrogressive gender stereotypes. It is important to bear in mind that structural inequality is a relational issue - men's cooperation is essential to the achievement of progress in this male-dominated sector. Consultation with female workers (contractors, owner-operators, employees) will be crucial to good design and implementation of interventions. Another strategic issue concerns data collection. Given the significant gender differences in employment opportunities, systematic collection of gender-disaggregated data is essential, in order to highlight these issues: this needs to take place before, during and after the implementation of new projects.

Finally, we suggest some key questions that major employers in both service and construction arms of the formal road transport sector should be encouraged to consider: What is the ratio of female to male employment at different skill levels? What is the dominant level of female employment (unskilled, semi-skilled, professional, and managerial)? Do women get the same pay as men for the same task? Are there women in leadership positions? Are there opportunities for women to work in women-only teams where cultural/ security issues make this necessary? Are there opportunities for women to train and move up the career ladder? Are training opportunities made available for women who are able to participate? Is gender mainstreaming a contractual obligation? Are women's domestic/caring demands taken into account in the allocation of tasks and their location and timing? Is childcare available on or close to the work base? Are separate, safe bathroom (and where necessary residential) facilities available for women workers? Do women report harassment at work? If so, what steps are taken to resolve these issues? Is there an appropriate (female) resource person with whom women can discuss their needs, report harassment and other problems and obtain advice on training and other matters? Are women informed about employment opportunities? If so, how? Could information routes be better targeted? Careful reflection and action on these questions could help bring substantial change in a sector where change is urgently needed.

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ⁱ The component of this research focused on women's transport services employment is still in progress due to COVID-19 interruptions: project details are available at https://transportandyouthemploymentinafrica.com

