International Labour Organization

GOOD WORKING CONDITIONS GOOD BUSINESS?

AN ANALYSIS OF ZAMBIA'S BUILDING CONSTRUCTION MARKET SYSTEM

the LAB
MARKET SYSTEMS DEVELOPMENT FOR DECENT WORK

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THE ZAMBIA GREEN JOBS PROGRAMME

The Zambian Green Jobs Programme seeks to support MSMEs in the construction sector by improving working conditions, particularly in social protection and occupational safety health (OSH), while also creating new jobs and increasing productivity.

The programme is a collaborative multi-agency effort, comprised of staff from the FAO, UNEP, UNCTAD, and ITC, with the ILO as the lead agency.

The project outcomes are (1) Increased appreciation from the public and building industry stakeholders for green building principles, (2) A regulatory framework that stimulates demand among housing developers for environmentally friendly building materials, products, technology and methods, and (3) MSMEs have enhanced capacity to effectively participate in the building construction and green building goods and services market.

EXECUTIVE SUMMARY

A market systems analysis was conducted to identify and understand the root causes of poor working conditions in micro-, small-, and medium enterprises (MSMEs) in Zambia's building construction sector.

According to the Zambian Central Statistical Office (2012), although construction is one of Zambia's fastest growing sectors, it ranks near the bottom of all employment sectors in terms of wages, proportion of permanent employees, social protection awareness and unionised staff. It also has inherent occupational safety and health risks.

The findings of this analysis suggest that binding systemic constraints to improving working conditions in MSMEs include *access to investment and working capital*, particularly to grow assets, participate in bids and overcome chronic cash flow challenges arising from delayed payments; *public tendering and procurement processes* that do not maximise the potential to influence working conditions across the sector; and the *precarious performance of many smaller MSMEs and their stagnant growth* which means many enterprises operate with narrow margins or at a loss, providing a lack of incentives for firms to meaningfully invest in their workforce.

Generally, the MSMEs with good business performance are those with higher compliance with statutory social security and occupational safety and health obligations. These firms have clearer incentives to ensure adequate working conditions, particularly workplace safety, to avoid absenteeism, accidents and reputational risks in an increasingly competitive marketplace.

Smaller, poorly performing MSMEs that do not have a steady stream of contracts or clients generally had the poorest conditions - yet this is where much of the workforce is employed. These enterprises often attempt to provide rudimentary protection such as protective equipment and cover health costs ad-hoc, often incurring out-of-pocket expenses for the MSME owner. There is potential to shift these to more systematic social protection schemes that are more cost-effective and entail more predictable expenditures for enterprises, thus expanding access to health insurance, savings and benefits for a greater number of workers. In the absence of national capacity for widespread workplace inspection, there is also potential to explore models for more effective enforcement of safety and health standards, social security and adherence to basic labour law among other appropriate MSME working conditions through subcontractor arrangements and horizontal value chain cooperation.

However, these improvements will be no more than incremental unless they are addressed in parallel with growth strategies: without improving their core business performance and their position within the market, MSMEs are likely to have neither the incentive nor the capacity to take on board new ideas, innovations and practices to improve workplace conditions.

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INTRODUCTION

A market systems analysis (MSA) of the Zambian building construction sector was undertaken to investigate the extent to which a business case[1] for investing in improving working conditions exists, or can be built, within micro-, small-, and medium-enterprises (MSMEs) and to what extent better working conditions are likely to lead to improvements in enterprise productivity and performance[2].

The analysis was performed as part of the Zambian Green Jobs Programme, a collaborative multi-UN agency initiative with the objective of creating green and decent jobs. It was carried out with the support of the Lab (www.ilo.org/thelab) – an ILO global project aimed at measuring and maximising pro-poor employment outcomes through market systems development.

This MSA complements the *Actor Network Analysis of the Zambian Building Industry*, which has already provided a thorough assessment of this sector through the prism of green growth. This MSA adds to the focus of the Network Analysis on relationships by exploring the underlying incentives to improve working conditions at the level of both enterprises and in the wider market.

A market systems diagnostic is used – which analyses sector performance based on the multi-function, multi-player 'systems' that the core building construction sector is embedded within[3]. The approach is applied here with a focus on working conditions to help deepen understanding of incentives and capacities to change, providing an indication of likely market sustainability of any new initiatives, innovations or interventions in the sector.

A methodology for the MSA is outlined in Annex 2.

[1] The MSA considered a business case to be a market-driven incentive (e.g. increased sales, improved margins, higher worker productivity, brand status) in an MSME to improve working conditions

[2] Research conducted by consultants Gemunu Wijesena and Steve Hartrich, under the guidance of the Lab team, and with the support of the Zambia Green Jobs Programme

[3] See *ILO Value Chain Development for Decent Work: a guide for development practitioners, government and private sector initiatives (Herr & Muzira 2009).* Also see *The Operational Guide for the Making Markets Work for the Poor (M4P) approach (The Springfield Centre 2008).*

Table 1: Micro, Small, and Medium Enterprise Classification Criteria

Firm Size	Employees	Investment (USD)	Turnover (USD)
Micro	*<10 persons*	*<$21,000*	*<$40,000*
Small	*11-50 persons*	*$21,000-$53,000 for manufacturing/ processing enterprises, or <$40,000 for trading/service providers*	*$40,000 -$80,000*
Medium	*51-100 persons*	*$53,000 - $133,000 for manufacturing/ processing enterprises, or $40,000 - $80,000 for trading/service providers*	*$80,000-$213,300*

Figure 1: Construction Firm Size

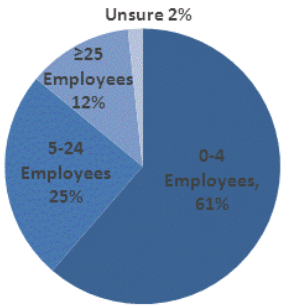
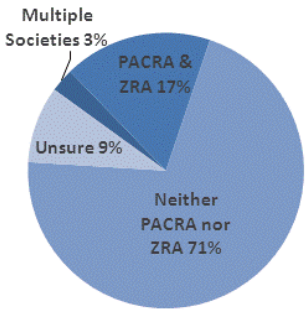


Figure 2: Construction Firm Registration



1. POTENTIAL FOR LASTING AND LARGE-SCALE PRO-POOR CHANGE

1.1. POVERTY REDUCTION, WORKING CONDITIONS AND THE BUILDING CONSTRUCTION SECTOR

The construction industry comprises 29 per cent of the national GDP while growing, year-on-year, faster than the already rapidly expanding Zambian economy[4]. It is thought the sector offers excellent potential for broad-based wealth and job creation, due to its labour intensity, low entry barriers for semi-skilled and unskilled labour, and high concentration of MSMEs[5]. At the same time, the quality of employment is just as important as the creation of employment itself. The construction sector is among the sectors most prone to industrial accidents and injuries, and workers are among the most vulnerable to ill-health, poverty in case of maternity, disease and disability.

The presence of poor working conditions is most prevalent for unskilled labourers as they are often used as a disposable commodity rather than invested in as contributors to a growing business team. As a result, the unskilled work force generally does not have, or is not aware of, social security instruments available to protect them. According to the Zambian Central Statistical Office (2012), the construction sector ranks 19th out of 21 sectors in terms of the number of employees that believe they are covered by a social security scheme (18 per cent)[6]. In terms of occupational safety and health (OSH) of labourers, employers often choose not to invest in personal protective equipment (PPE) or adequate safety and machinery training. Furthermore, job security is rare: the construction sector ranks last out of 21 sectors in the proportion of permanent employees, with less than one third of the national average in terms of the proportion of permanent staff[7].

Due to the abundance of unskilled labour and the narrow margins on contracts, wages in the construction industry are well below those in other industries within Zambia. At USD 160 per month, the mean construction worker wage is less than half the national average and ranks 18th out of 21 sectors in Zambia. Three quarters of the construction labourers earn less than USD 195 per month[8] . The inherent challenges of surviving on such low wages are exacerbated due to irregular disbursement of wages, which is a consequence of irregular payments from end-clients.

The same issues that plague unskilled workers most often challenge semi-skilled and skilled labourers. However, as one's skill level increases, so does the likelihood that s/he has a more formal contract, better social protection, appropriate PPE and/or training, and better wages.

With such challenging working conditions omnipresent in the building construction sector, labourers remain trapped in a veritable vicious circle. That is, with poor and

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[4] See the African Economic Outlook country note on Zambia (2014): http://www.africaneconomicoutlook.org/fileadmin/uploads/aeo/2014/PDF/CN_Long_EN/Zambia.pdf

[5] See *Actor Network Analysis of the Zambian Building Industry (ILO 2012)*

[6] See the Zambian Central Statistical Office 2012 Labour Force Survey

[7] Ibid. However, the trends point to a movement towards a more formalised workforce. Most of the new jobs in the construction sector have not been for casual workers but for paid, formal employees. While only 5 per cent of construction jobs in 2002 were held by paid, formal employees, this increased to approximately 33 per cent by 2010. See Resnick & Thurlow 2014: http://www.ifpri.org/sites/default/files/publications/ifpridp01320.pdf

[8] Developed from the Zambian Central Statistical Office 2012 Labour Labour Force Survey data and calculated from the 2012 official exchange rate from World Bank Data

Figure 3: Urban/Rural Split Construction Workers and Population

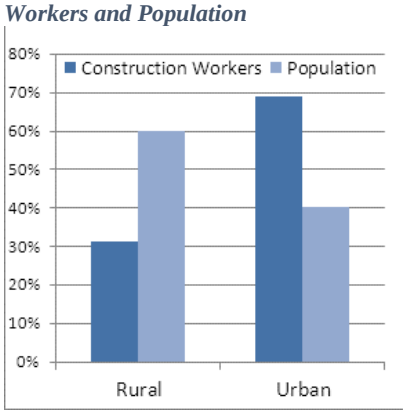


Figure 4: Construction Worker Location of Employment

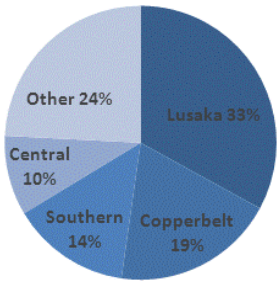
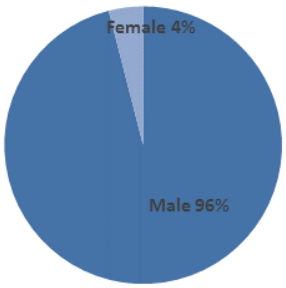


Figure 5: Construction Worker Composition, by Gender



inconsistent wages not conducive to saving and little to no employer investment in skills and training, the worker will not develop more skills and more consistent or better-paid employment opportunities. Without career progression, workers can lose motivation, become less productive and inherently work a lifetime with few skills, in a poorly paid position and with very poor working conditions. Apart from the obvious impacts on human development, these challenges are highly detrimental to construction quality and labour productivity as they hinder the growth and development of building construction MSMEs.

1.2. TARGET GROUP

The target group for this construction sector analysis is micro, small and medium enterprises (MSMEs). These enterprises have been targeted because of their strong capacity to grow and effectively participate in the building construction sector and green building products and services markets[9]. The criteria for which MSMEs are classified within Zambia are shown in Table 1[10]. The firm size and registration status with respect to with PACRA or the Zambian Revenue Authority are shown in Figures 1 and 2[11].

In addition to their growth potential, MSMEs were targeted due to their large market share of employees within the sector and because these workers are often exposed to the very poorest of the conditions mentioned in the previous section. More than half of the workers live in the either Lusaka or the Copperbelt provinces and 96 per cent of the labour force is male. A summary of these data, which includes both workers in the formal and informal sectors, is shown in Figures 3 through 5[12].

1.3. GROWTH POTENTIAL OF THE BUILDING CONSTRUCTION SECTOR

The World Bank estimated annual construction growth in Zambia of between 11 and 12 per cent from 2013 through 2015 as a result of planned investments. Considering that the projected national economic growth rate in the near future is seven per cent per annum, the sector will continue to be a large and growing element of the national economy.

Despite the impressive investment levels in the sector and its continued growth, this investment has yet to translate into wide employment outcomes. Only 188,000 are employed in the construction sector, representing just 3.4 per cent of total labour force[13]. That is, for every USD 32,000 invested or circulating within the construction sector, one immediate job is created.

The construction sector, meanwhile, has been identified as one of the main enablers of economic growth by the Government of Zambia. According to Zambia's Vision 2030, the total housing unit backlog is about one million and that 110,000 dwelling units are required annually to clear the backlog for the next ten years. To satisfy new demand for houses all over the country, a similar number is required to be constructed annually.

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[9] See Bolton's "Government procurement as a policy tool in South Africa" in *Journal of Public Procurement* 6.3 (2006: 193).
[10] Criteria identified by the Ministry of Commerce, Trade and Industry in, *The Micro, Small and Medium Enterprise Development Policy* (2008). USD equivalent calculations derived using the year 2008 average exchange rate of 3,750 Kwacha/USD (World Bank Data).
[11] These figures are based on the employee responses about the firms where they are employed.
[12] Ibid.
[13] Figures from the Zambian Central Statistical Office 2012 Labour Force Survey. Figures presented from the World Bank report, *Zambia's Jobs Challenge: Realities on the Ground*, 2013, estimate 86,000 are in formal employment in the construction sector.

2. SECTOR STRUCTURE AND PERFORMANCE

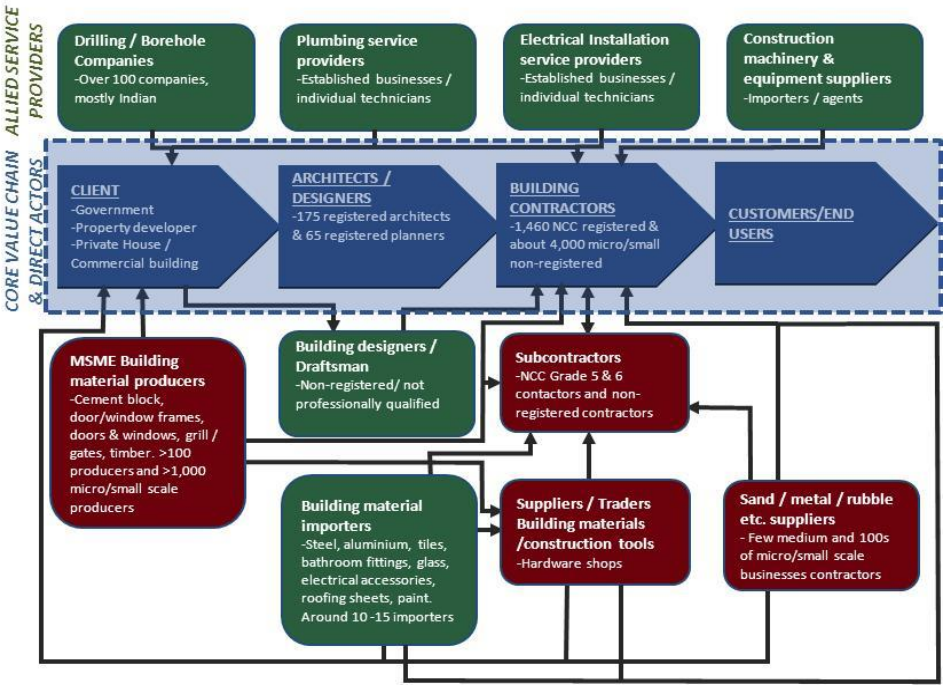
2.1 BUILDING CONSTRUCTION SECTOR MAPPING

The building construction market system can be grouped into five categories of players:

- Clients (public and private)
- Architects / designers (building designers, draftsmen[14])
- Building contractors (including sub-contractors)
- Input suppliers (including building material producers and importers) and allied service providers
- Customers/end users

The interaction of these players with respect to one another is mapped out in Figure 6. Here, the red-highlighted boxes are indicative of very poor working conditions.

Figure 6: Simplified Building Construction Sector Value Chain Map in Zambia



2.2 PERFORMANCE OF CORE ACTORS IN THE CONSTRUCTION SECTOR

The function each key player fulfils within the sector is detailed in the remainder of this section[15]. Building contractors and their corresponding input suppliers are reviewed most extensively because of their comparatively high quantity of actors and employees and because these actors were thought to have the poorest working conditions.

[14] Including structural and civil engineers.
[15] Customers/end users are not examined as a separate category, but as part of the clients

2.2.1 CLIENTS

The government acts as the principal client to the majority of National Council of Construction (NCC) registered building contractors. Contractors who are not registered with the NCC cannot be awarded public contracts. For these contractors who are registered, the work usually involves major construction projects such as transport infrastructure, hospitals, medical centres, schools, administrative buildings and various housing development projects. For example, The Department of Housing Development, which is under the remit of the Ministry of Local Government & Housing, is in the process of building 4,000 housing units for public service workers as a Public-Private-Partnership project. The Zambian Road Development Agency is promoting a large-scale infrastructure project called Link 8000, which in its first phase proposed to build 1,500 kilometres of roads within Zambia. Private clients developing large-scale industrial or extraction facilities also finance large-scale projects.

The large-scale government construction projects are generally awarded to and performed by foreign-owned construction companies. These companies are awarded projects because of their ability to submit comprehensive tenders, their technical capacity, and the financial instruments which fund start-up works, the acquisition of large-scale machinery and at times, finance the project itself. Some local construction companies are awarded government small- and medium- scale construction, maintenance and renovation projects.

For one-off residential construction, most private clients obtain services from informal/non-registered contractors. This type of construction is an owner-driven process whereby the client purchases all supplies and necessary materials and only the technical services and labour is contracted. Residential property developers and private commercial developers use well-established and reputable contractors which can be SMEs. Under this arrangement, the developers contract a full service which includes both labour and supply of the required materials.

2.2.2 ARCHITECTS / DESIGNERS

Within Zambia, approximately 175 architects and 65 planners are registered. Of the architects, some are permanently employed by large-scale construction companies while a few others work in various government departments. The majority of architects operate as private businesses or work as freelancers. Normally, clients look to contract architectural services, but some architects engage in promotional activities as well. Approximately 75% of the clients are individual house builders while the remaining 25% are involved in designing larger residential and commercial developments.

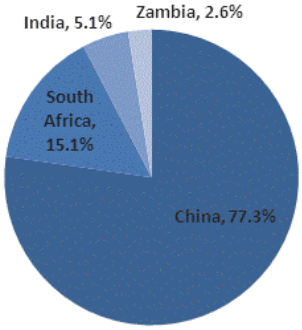
2.2.3 BUILDING CONTRACTORS

Approximately 1,460 construction businesses are registered with the NCC under the building and housing category, which includes large-scale international construction companies. The majority of registered contractors are dependent on government contracts, while some MSME contractors are subcontracted by large-scale contractors from these government contracts.

LARGE-SCALE BUILDING CONSTRUCTION

Large-scale construction projects are generally awarded to few foreign construction companies. In 2009, it was estimated that two-thirds of the NCC Grade 1 (large-scale) contractors operating in civil construction works were Chinese companies,

Figure 7: Award value allocation of road construction contracts by nationality of contractor on Link 8000 project



most of which were parastatal organisations.[16] With respect to road construction, the vast majority of these contracts are awarded to Chinese contractors. Figure 7 shows the award distribution of 20 large-scale individual road construction contracts from the Link 8000 project, which represents over USD 1.1 billion of construction work.[17]

In general, the foreign construction companies employ managerial and supervisory staff from their respective countries, while unskilled labour is largely sourced from the general vicinity of the project and is employed on an informal basis. The large foreign construction companies do not subcontract works to smaller domestic contractors unless required to do so on a policy basis for road construction projects. Building construction work is not subcontracted due to a perception that domestic contractors cannot meet the required work standard or deadlines. Outside of road construction projects, the contracting linkages between large and MSME contractors are few and rare, though large contractors do subcontract work to building materials suppliers.[18]

Foreign contractors usually have access to financial instruments which provide them with a competitive advantage. State-owned Chinese construction companies have access to low-interest loans issued by Chinese private or state-owned banks. These loans afford contractors the ability to import heavy machinery while significantly reducing their reliance on the receipt of an initial payment to undertake enabling works. Furthermore, some large state projects are financed through loans from the Bank of China which enable Chinese contractors to conduct the works.

Zambian contractors have difficulty in obtaining even relatively high-interest loans through domestic lenders and are dependent on receiving some form of initial payment to jump-start the enabling works of the project. The relative ease and low-cost of capital allows the Chinese to finance low price tender submissions which do not depend on the availability of government funding streams.

In addition to the financial advantages, Chinese contractors are more experienced and have stronger technical capacity to conduct the large-scale works that would otherwise have to be split into a series of smaller contracts if local firms were to undertake them.

MICRO, SMALL AND MEDIUM SCALE BUILDING CONSTRUCTION

The majority of the small- and medium-scale building contractors (NCC Grade 4, 5 and 6) operate at low capacity due to difficulty in securing continuous contracts. This difficulty in securing contracts stems from the abundant supply of MSME contractors relative to the low availability of tenders awarded to contractors of MSME size.

The mismatch between local MSME contract demand and government small-scale tender supply has led to a highly competitive market which is conducive to contractors submitting low priced tenders as a mechanism to win these contracts. With such narrow margins, labour quality, wages, staff training, social protection and safety are ultimately compromised.

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[16] See Kragelund2009.:644

[17] Contract value calculations from the Contracts Sum (works) column in Table 1 of the Road Development Agency's *Link Zambia 8000 Road Project* (July 2014). Contract 20 was omitted as the contractor location could not be determined, and joint ventures assumed 50% award to each party.

[18] See Kragelund2009

CASE SUMMARY 1: A STRONG PERFORMING BUILDING CONTRACTOR

The first case study in **Annex 1** provides a glimpse of the potential of the Zambian construction sector, in terms of high achievement from a business and working conditions perspective.

This medium- to large-scale building construction company pays 20% higher than the gazetted minimum wage, provides health insurance, NAPSA, worker's compensation and comprehensive PPE for all employees, has safety briefings every morning before work commences, registers all near misses and identifies corrective measures to ensure that any near miss does not occur again. The company also invests in international experts to train all staff on relevant equipment and site safety for several months at a time. This contractor rewards strong work and safety performance in their "performers of the month" competition. Management believes that staff are key to their success and have created a culture that engenders staff to work hard for the organisation. As a result of this positive work culture, business is growing and project delivery is on time and to a high quality. Labourers are also capitalising on the strong working conditions, as their professional development will lead to better employment opportunities in the future.

Another consequence of this highly competitive tendering process is that many MSME contractors have not secured a public contract over the last two years. Despite not winning any contracts for extended periods of time, it is alleged that some contractors maintain their NCC grade level by fraudulently providing information or documents, as well as showing temporary borrowed equipment upon inspection. Due to the lack of sustainable sources of income in the construction sector, they are survivalist MSME contractors who are involved in other income generating activities such as farming and engage in construction as a side business. This lack of focus on construction is not conducive to investment in employee growth, training, safety or social protection.

MSME contractors are registered with the NCC so that they are eligible for the award of government contracts. Some MSME contractors are highly dependent on government contracts, while others use them as an important additional work source to their private client base. One issue with the government contracts is that the payment for works on delivery of service is often not predictable and reliable, with some reporting losses to practices in the issuance and management of public tenders.

The private sector is the only work stream for contractors not registered with the NCC. For many registered contractors, private clients are an important if not vital work source. Despite the importance of the private sector, some concerns plague the client-contractor relationship. These challenges include regular payment streams, narrow margins which are difficult to manage due to high client interference and regular design changes that occur during construction. Some firms also identified that their works were delayed with regularity as they had to wait until client had sufficient money to buy the materials necessary for completion of project phases.

The irregular payments often prevent contractors from paying their employees on time. Some contractors have identified that they experienced government payment delays in excess of one year. Contractors rarely, if ever, pursue legal action against the government for delayed payments as they fear that legal action would blacklist the contractor from future public procurement which in turn would severely com-

promise the contractor's ability to operate a profitable business. Additional side effects of these payment delays are high-interest costs incurred on borrowed capital, reduced contract value through currency inflation and poor staff retention.

Because MSME construction contractors fail to secure frequent contracts, they generally hire temporary workers on demand and pay them on a piece rate basis. Without a formal work contract in place, employee working conditions suffer; occupational safety and health (OSH) practices are not enforced, personal protective equipment (PPE) is not provided, and contributions to the social security schemes are not supported. The working conditions are further compromised as MSME contractors frequently recruit relatives, friends or referrals for supervisory or foreman positions, without considering qualifications or experience. These supervisors are generally assigned to source the required workers for the contract. The high costs of providing PPE and the limited availability and the perceived high cost of qualified OSH experts have also constrained the appropriate application of OSH practices.

Due to an abundant labour supply, particularly with regard to unskilled and semi-skilled labour, the high cost of PPE equipment and the limited capacity of NCC and the Ministry of Labour and Social Security to enforce and monitor OSH and social protection rules and regulations, unfavourable working conditions continue to persist. Although the outlook for working conditions for MSMEs in the building construction sector may be bleak, medium-sized (Grade 4) contractors and those contracted to the mining sector follow OSH practices more frequently.

There is a trend of low staff retention and high staff absenteeism. Skilled staff often changes companies with regularity, as and when better paid contracts become available. Employers have difficulty finding skilled replacements. The high turnover of skilled staff is a disincentive for firms to invest in training employees, as they are concerned that once trained, the employee will go elsewhere for a more lucrative contract. This, in turn, makes workers feel under-valued and more likely to leave their employers due to perceptions of poor human resource management.

CASE SUMMARY 2: A SMALL-SCALE, POORLY PERFORMING CONTRACTOR

The second case study in **Annex 1** paints the picture of the perennially challenged small-scale building contractor that maintains just enough work to keep business afloat.

For this company, working conditions are poor, with a disorganised work environment, limited to no safety precautions being implemented on machinery, and limited PPE, training opportunities or social protection schemes provided to the employees. Management are looking to transform the business by registering with the NCC and mandatory social protection schemes such that they are eligible to win government contracts. Management and members of staff all cited capital as a constraining factor to the business, limiting the acquisition of machinery, regular payments to staff, investment in better working conditions and ultimately, a growing business. The client-contractor relationship in small-scale private construction jobs is also restrictive. The contractor often has to wait for the client to save sufficient money to buy the materials for their projects, creating a stop-start project flow. Irregular payments from clients also hinder staff morale, as the director articulated, "when we are not paid on time, we have to plead with our employees to give us more time."

Picture 1: Door/window-frame production

Picture 2: A welder at work

2.2.4 INPUT SUPPLIERS AND ALLIED SERVICE PROVIDERS

BUILDING MATERIAL PRODUCERS

There are over 100 established medium-scale building material enterprises and over 1,000 micro- and small-scale enterprises involved in the production of cement blocks, door/window frames, doors and windows, grills/ gates. These MSMEs are most often located within or on the periphery of the urban centres and support the building construction sector which largely operates in urban locations.

Between 400 and 600 micro- and small-scale businesses are engaged in extraction and supply of sand and metal (i.e. rubble and aggregate). It is estimated that over 90 per cent of these businesses are not registered with PACRA, the agency run under the umbrella of the Zambian Ministry of Commerce, Trade and Industry that is responsible for registering businesses. The businesses are not registered because the owners are wary that they will have to pay taxes in an already constrained business environment, or because they are not aware of requirements, the registration procedures or the benefits of becoming registered.

For most firms in this sector, low cash-flow levels combined with irregularity of contracts are restrictive to business operations. This is particularly problematic in months where contracts are slow and operating costs such as electricity and rent are more important than staff wages.

Working conditions in the building material production businesses are, in general, worse than those in the core building construction sector. The lack of proper regulatory mechanisms, weak business knowledge and employer attitudes, as well as poor worker knowledge regarding the importance of OSH and social protection are among the main reasons for these conditions. Although PPE is supplied irregularity to employees, safety and machinery training, a register of accidents and near misses, and safe and appropriate work environments are nearly non-existent.

COMPRESSED CEMENT BLOCK PRODUCERS

The most prominent type of business in building material supply is cement block production. Within the sector, required raw materials such as cement, sand/quarry dust and crushed metal are readily available. Workers in this trade are paid daily wages according to the number of bags of cement used in production. Micro-and-small-scale businesses often operate with around five workers and one small block making machine and target the low-quality, low-price market segment associated with low and middle-income residential construction. The medium-scale cement block producers target the quality-conscious market segments like high-income private residential and commercial construction as well as government construction projects.

Working conditions in this sector are generally very poor, as workers perform their tasks in dusty and noisy environments. Production is often carried out in an open space, with no shade from the sun or shelter from the rain. Workers do not use proper PPE as they generally lack knowledge on the relative importance of the equipment. Furthermore, employers do not provide PPE due to its high cost and as a consequence of high staff turnover associated with the labour force being employed on a causal basis and/or paid on a piece rate.

DOOR/WINDOW FRAME PRODUCERS

More than 1000 businesses produce door and window frames. Their customers are mostly the public engaged in owner-driven housing construction; however, about 20% of their demand comes from small-scale building contractors. Required steel materials are purchased from nearby retail shops. Approximately three to six labour-

ers are employed in one business, and they are paid by piece. Very few have received any formal technical training, and most have learned the skills on-the-job.

The production of door/window frames is generally carried out in open areas, directly under the hot, bright sun and labourers often cannot work on rainy days. Work is executed in a dusty environment, and workers are exposed to welding fumes and vapours from paint and solvents. Production involves cutting iron bars, welding, grinding and painting operations. Labourers do not use a workbench and fabrication is done on the ground. The use of improperly wired electrical equipment is prevalent – this causes frequent electrical shocks to the labourers, particularly during rainy season. The use of PPE is very limited and welders do not use proper gloves, footwear, eye protection, goggles, or face shields.

CASE SUMMARY 3: DOOR AND WINDOW FRAME SUPPLIER

The third case study in **Annex 1** details the severe business and working condition challenges faced by the average micro-scale building materials supplier which are exemplified by this door- and window-frame producer.

The owner finds business growth impossible due to many competing similar suppliers, narrow margins, a lack of capital, and irregular and sometimes non-existent payments from his clients. As a result of these challenges, working conditions for his employees are almost completely neglected. The business has two full-time staff which are provided inadequate PPE and three temporary staff which are not provided any PPE. None of the staff are covered by mandatory social protection schemes. For this business, and countless others like it, there is a very limited OSH culture. One worker was observed welding a door-frame on the ground, hunched over, without gloves or a mask, with inappropriate eye protection and wearing a t-shirt and sandals with arms and feet completed exposed. The consequences of this lack of OSH and the little hope for improved working conditions were articulated by the brother of the owner, "my back always hurts, I am regularly electrocuted by our homemade welding gun, my eyes hurt at night, I've had a cough the past two months, I have burns on my arms, but this is part of the job."

Picture 3: Working conditions at a stone crushing supplier

SAND, METAL AND CRUSHED STONE SUPPLIERS

Several hundred micro/small businesses are engaged in supplying sand, metal and crushed stone. These businesses are neither registered nor licensed and generally operate from rented land space along roadsides. The inputs are mined, collected or bought wholesale from distant locations, transported to urban markets and then sold on. Nearly all businesses operate in an open space without a roof for protection. Thus, labourers work directly under strong sunlight, and businesses cannot operate on rainy days. Women are traditionally involved in stone crushing work, which is performed by hand. For these businesses, OSH and enrolment into social protection programmes are non-existent.

TIMBER INPUT SUPPLIERS

More than 580 MSMEs supply plantation timber to the building construction sector. These businesses are primarily located in the Copperbelt province and are more formally organised with representative associations. The sawmilling MSMEs are organised into two major associations: Copperbelt Sawmillers and Timber Growers' Association (COSTIGA) and Zambia National Association of Sawmillers (ZNAS).

Every sawmiller must be registered with PACRA before they can be issued standing trees to harvest.

Picture 4: Workers in box production – with no saw guard

Within the Copperbelt province, the timber harvest is managed by the Zambia Forestry and Forest Industries Corporation Limited (ZAFFICO), which issues permits and regulates quota size and sale price. Legally, timber can only be harvested from government timber forest plantations. Sawmillers buy timber trees based on a quota system which favours micro- and small-scale sawmillers, though this often severely restricts their ability to grow into larger, more efficient businesses.

Working conditions in this sector are slightly better than those in other building materials sectors or on construction sites. The timber industry has more consistent work and employers commonly provide meals to their employees, however, like other building material suppliers and those in the building construction sector, it has relatively low OSH and social protection. Workers have low literacy levels and are mostly unskilled. Machine operators acquire skills through on-the-job training. Regular workers are provided meals and transport between home and the workplace and are paid on a weekly or monthly basis. Other workers, such as loading labour and workers in the production of by-products are paid on a by piece basis.

The total demand for timber in Zambia is 600,000 m^3 per annum, 170,000 m^3 more than the local annual supply of 430,000 m^3. The demand for timber is increasing in conjunction with growth in building construction activity, and considering the vast shortfall in domestic supply, the insufficient supply is a constraint to growth within the industry. As a result of this deficit and growth in the construction sector, the cost of timber has been rising in recent years.

CASE SUMMARY 4: SMALL SCALE TIMBER SUPPLIER

The fourth case study in **Annex 1** outlines the challenges which are inherent to many small-scale timber suppliers.

This supplier, who operates in a compound among twenty other suppliers and ubiquitous piles of scrap wood and mounds of sawdust, has two skilled staff and two helpers. The business provides staff with incomplete PPE and they are not subscribed to mandatory social protections schemes. The manager was adamant that he would like to provide the best possible working conditions for his staff, but that the ZAFFICO timber quota severely restricts his business ambitions and the capital available to provide such conditions. He vented his frustration in saying, "my business will always be limited by the timber quota, we cannot grow unless the quota grows." Timber waste, which represents about 50% of the product and is represented on site by numerous smouldering burn piles, appears to be of very little concern to those within the business. The distribution networks for timber appear to be poorly developed as the manager travels from the Copperbelt to Lusaka once a month to sell his timber at a market as he can get the best price for his product there.

BUILDING MATERIAL IMPORTERS

There are approximately 10 to 15 companies that import cement, steel, aluminium, tiles, bathroom fittings, glass, electrical accessories/components and roofing sheets.

CEMENT / STEEL PRODUCERS

There are three large-scale cement manufacturing companies, Lafarge Cement Zambia, Sirocco Enterprises Limited and Zambezi Portland Cement Limited. A fourth large-scale cement producing company, established by the Dangote Group, is about to commence production. Some local businesses are engaged in steel production.

BUILDING MATERIAL TRADERS (HARDWARE SHOPS)

An abundance of MSME hardware shops sell cement, steel, aluminium, tiles, bathroom fittings, glass, electrical accessories/components, roofing sheets, paints, as well as different tools and equipment required for the construction sector. Some hardware dealers also produce door and window frames.

CONSTRUCTION MACHINERY AND EQUIPMENT SUPPLIERS

Very few businesses supply or rent out large-scale construction machinery such as motor graders, loaders, large concrete mixers and compactors. Due to the scarcity of businesses that rent large-scale construction machinery, rental prices are inflated. With regards to purchasing equipment, large-scale machinery is imported on a per order basis and almost exclusively for large-scale contractors. Rentals for common small-scale machinery, tools and equipment that are most appropriate for MSME building contractors are not available as businesses that rent this type of equipment do not exist.

ALLIED SERVICE PROVIDERS

BOREHOLE / DRILLING SERVICE PROVIDERS

Central water supply in Zambia is not adequate to meet demand. Therefore, the majority of households, public buildings and private buildings access water services through a tube-well. To meet this demand, more than 100 established drilling/borehole service businesses are in operation, 90% of which are Indian-owned companies. Building contractors and private house builders contract the drilling/borehole service providers to connect water services to houses and other buildings.

ELECTRICAL INSTALLATION, PLUMBING AND AIR-CONDITIONING SERVICE PROVIDERS

Some formal established businesses engage in electrical installation, plumbing and air-conditioning services to residential, commercial and office buildings. Individual/self-employed technicians also provide these services. Building contractors as well as individual households subcontract or hire these enterprises and individuals to perform the relevant construction services.

MASONS

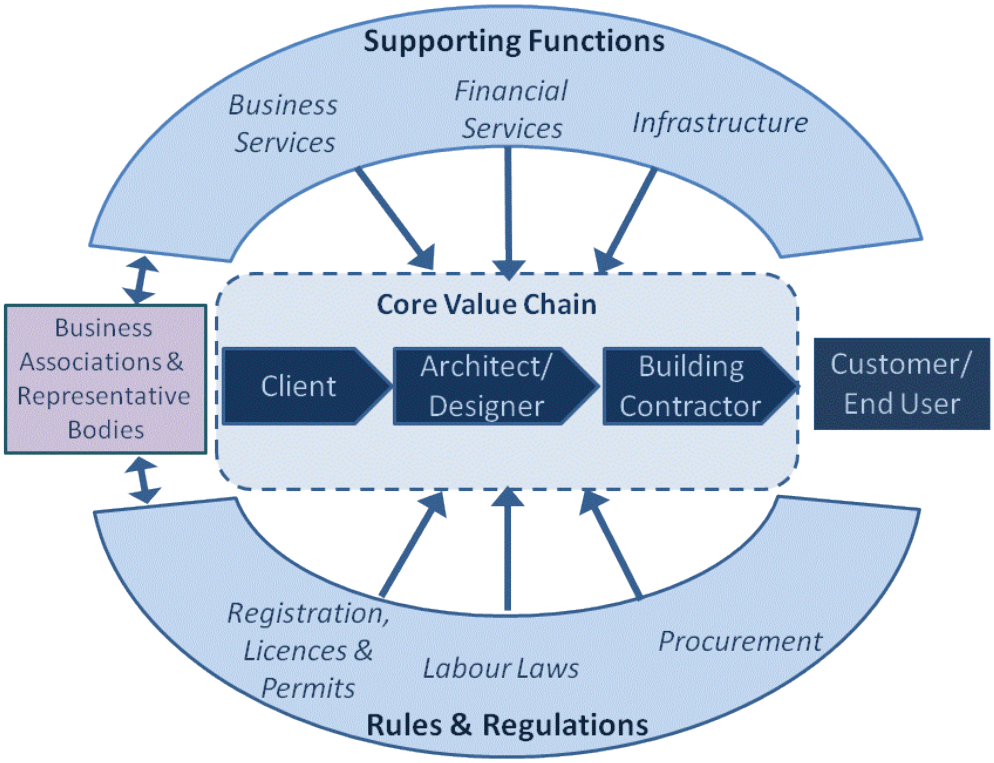
It is estimated that approximately 4,000 experienced masons operate as independent micro/small-scale contractors who are not formally registered or licensed by the authorities[19]. The masons are contracted directly by owner-driven residential construction which includes the expansion and renovation of existing houses. They also work on small-scale commercial buildings such as shops and office buildings. The contracted masons hire other masons and masonry labourers to help complete these projects.

[19] Conversation with the Technical Education, Vocational and Entrepreneurship Training Authority (TEVETA).

3. PERFORMANCE OF IMPORTANT SUPPORTING FUNCTIONS AND RULES

Around the core market are numerous other players, functions and rules that shape the overall performance of the building construction sector. This 'system' is illustrated below in Figure.

Figure 8: The core building construction market system



By analysing the (under) performance of important market functions and rules, the root causes of working conditions constraints in the sector can be better understood.

For example, the core sector may be constrained by a lack of knowledge of how to safely use new equipment, which is attributed to the supporting function of technical training opportunities not being sufficient to meet demand. By addressing root causes in the connected 'skills' system, the competiveness and working conditions within the sector can be improved.

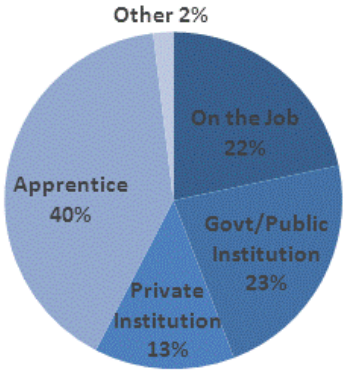
The performance of the supporting functions, rules and regulations – along with supporting business associations and representative bodies – are detailed in the following sections.

3.1 SUPPORTING FUNCTIONS

3.1.1 BUSINESS SERVICES

SKILLS TRAINING

Figure 9: Sources of Construction Worker Training



There are less than 10 vocational training (VT) providers that offer skills training for the construction sector. Figure 9 shows the breakdown of how construction workers were trained[20].

For the government skills training schools, the intake capacity is between 60 and 90 per year with an estimated one government skills training school per each of the ten provinces. Approximately 80 per cent of the VT providers offer courses at National Vocational Qualification (NVQ) levels 3 and 4. Private sector skills training providers are limited in number and are mostly involved in the provision of marketable training courses such as computer and business management training.

The NCC Construction School offers seven short training courses focused on contractors and professional staff in the construction sector. The courses last between one-week and four-months and include trainings on operating and maintaining construction equipment as well as on OSH practices among other topics. The OSH training course focuses on a mixed target group that includes the national government, local government and private sector. The school currently conducts two OSH courses per year though it plans to increase the course frequency to one per month. On average, the NCC Construction School trains 250 to 350 participants per year.

The government subsidises 70% of the course fee because it would otherwise be too expensive to charge full tuition to participants. The primary challenges to the NCC Construction School are limited training staff, a lack of teaching resources and funding. Considering that they are a government institute, the NCC Construction School are required to follow the government administrative and financial procedures at all times.

Thorn Park Construction Training offers two-months to two-year courses in bricklaying and plastering, carpentry and electrical installation. According to the current capacity and availability of funds, the intake is 75 students per year for 6-month courses and 125 students per year for one-year courses. Course fees range from 1000K (160 USD) for a two-month course, and 1600K (255USD) per term for longer courses. There is a high demand for the domestic electrical installation course. Limited modern equipment and limited funding availability to promote courses or purchase the required materials for practical training are among the key constraints.

The Ministry of Labour and Social Security provides a one-day employer training on OSH with a focus on risk assessment and a training programme on the economic benefits of OSH for management staff. However, due to insufficient financial resources, the training programme was not performed in 2014.

In discussions with MSME building contractor and building materials supply businesses, the dearth of skilled construction workers, particularly in rural areas, was common and problematic. Most managers and supervisors stated that the number of affordable training opportunities did not match the growing demands of the construction sector.

[20] Zambian Central Statistical Office 2012 Labour Force Survey

BUSINESS INFORMATION AND MARKET LINKAGES

The Zambia Development Agency (ZDA) is a statutory body which was established in 2006 and promotes private sector led economic development. ZDA has facilitated the establishment of industrial zones/clusters, developed a wooden furniture cluster, and planned to establish a cluster for metal fabrication (window/door frames) businesses. The ZDA industrial clusters provide common facilities, showrooms, workshop facilities, and facilitate linkages to financial service providers and information access to quality standards. Additionally, the ZDA have encouraged informal input building materials businesses to formalise with groups of informal businesses such that they can work cohesively to benefit from government construction contracts.

To help formalise the businesses, the ZDA has set-up "one-stop shops" in both Lusaka and Livingstone which include desks and representatives from NAPSA, Workers' Compensation, PACRA and Zambian Revenue Authority (ZRA). Registration to each scheme can be facilitated in minutes and at one location, which is much faster when compared to the individual offices which are commonly understaffed. The ZDA have plans to expand this "one-stop shop" initiative to the Eastern and Copperbelt provinces and then to all provinces, however, no definitive timelines have been set as funding for these offices has not yet been allocated.

Despite the ZDA's efforts to formalise and develop businesses, their resources are limited relative to the quantum of informal and underdeveloped businesses in the building construction sector. One contractor, who had become formalised with the ZDA's assistance, identified that beyond helping with the registration process, the ZDA did not provide the necessary technical assistance or mentoring to help them become competitive in bidding.

3.1.2 FINANCIAL SERVICES

Microfinance institutions and private banks are the two most accessible financial institutions for MSMEs. Microfinance institutions, which can lend anywhere between USD15 and USD 80,000, lend credit at an interest rate of about 40 per cent over the life of the loan. Depending on the loan type, microfinance institutions may accept the collateral for the loan as a title to the borrower's car. Private banks traditionally lend at rates of 20 to 25 per cent per annum and require a bankable business plan and collateral which is often the deed to the borrower's house.

Limited financial services are offered to MSMEs in the construction sector due to constraints on both the demand (MSME) and supply (financial institutions) side. On the demand side, MSMEs are either not aware of loans that they could avail from or generally do not have the financial literacy to submit a bankable business plan to a lending institution. For MSMEs, management skills are poor and they do not have a company bank account or proper accounting practices which detail the financial history and standing of the business. Even if the MSME owner had a bankable business plan, the majority of MSME owners do not own their houses and thus do not have the collateral to access a loan.

On the supply side, banks are not interested in lending to MSMEs as they perceive these loans as high risk which are costly in terms of time to vet, set-up and maintain. For these institutions, it is much easier to buy government issued treasury bills that have very little risk and guaranteed rates of return and payments. Additionally, financial services find difficulty in lending to the construction sector as the industry is quite cyclical. While banks expect monthly repayments, contractors receive irregular payment streams and so are often late on their loan repayments. Banks then perceive contractors as unreliable clients.

3.1.3 INFRASTRUCTURE (MACHINERY)

Many MSME contractors and building material suppliers cited inadequate machinery as a severe limiting factor in their business operations. Some of the MSMEs interviewed through the case studies identified that they were using homemade machinery which were more prone to accidents and occupational hazards. Various building contractors cited that once they won contracts, they often had to rent machinery which reduced their already low profit margins.

Inadequate machinery also limits the services that a firm can offer. For the timber supply sector, product losses are estimated at 50% in a supply constrained sector. With such losses, disposal of waste material has become problematic as the majority of sawmillers burn the excess sawdust and scrap wood as a means of disposal. This waste material could be used to make particle board or charcoal briquettes if proper machinery was available.

Most MSMEs identified that poor access to finance was the limiting factor in acquiring appropriate machinery. This financial constraint was identified because machinery is very expensive to rent and purchase. On the rental side, very few businesses rent the type of small-scale machinery that MSME building contractors need such as concrete mixers or welders. Thus the price of equipment and machine rentals is exceptionally high, quickly reducing profits on contracts with already narrow margins. On the purchasing side, machinery is imported from abroad and because the import costs in Zambia are 40% higher than other countries in the region, purchasing this equipment is expensive. Furthermore, MSME building contractors do not need the specialised machinery with regularity, and thus, purchasing equipment to be used on an infrequent basis is not a strong business investment. Thus, the availability of affordable which would allow MSMEs to improve efficiency and productivity is insufficient.

3.2 RULES AND REGULATIONS

3.2.1 REGISTRATION, LICENCES & PERMITS

PACRA, the agency run under the umbrella of the Zambian Ministry of Commerce, Trade and Industry, is responsible for registering businesses. PACRA registration is required for all businesses and is the first step toward becoming a formal business and registering for tax responsibility.

The Zambian Revenue Authority is the tax authority within Zambia. For businesses with a turnover of below USD 125,000 per year, the business is expected to pay three per cent on earned turnover. This simplified tax code is designed such that most MSMEs do not need to hire an accountant to audit and control individual business expenses, tax liability and exemptions.

The NCC is a statutory body that was formed under the National Council for Construction Act No. 13 of 2003. The NCC is responsible for registering contractors and providing the promotion, development, training and regulation of the construction industry in Zambia. To be awarded a public contract, a contractor must be registered with the NCC, and to be registered with NCC, a contractor must first be registered with PACRA, ZRA, Workers' Compensation, and NAPSA. Registration is required on an annual basis and is awarded for different construction activities such as building and housing, civil works, roads and earthworks and mining services. For each activity Grades range from Grade 1, the largest contractors, to Grade 6, micro-scale contractors. Contract grade is based on several criteria which include turnover,

value of fixed assets, and numbers of professional, technical and skilled staff among others.

Approximately 4,250 businesses are registered with the NCC. Of the registered contractors, 90% are categorised as Grade 4, 5 and 6 which are classified as MSMEs. Despite composing more than 90% of the NCC contractors, the proportion of contract award to these grades is less than 10% of the value of works.

Part of the remit the NCC is to conduct inspections on both public and private contracts. The inspections are largely focused on work quality and progress, materials used, sanitation, safety methods, PPE, and environmental compliance.

The NCC intends to inspect each construction project once per quarter. However, according to various contractors, the organisation is limited in its capacity to implement regular and extensive compliance inspections, and thus the NCC does not achieve its mandate of appropriately regulating the construction sector. Furthermore, their ability to evaluate contractor applications is also limited as some contractors have acquired NCC registration or have managed to upgrade their registration status by providing fraud information.

3.2.2 LABOUR LAWS

PPE UTILISATION

The necessity for worker PPE utilisation is identified in contract agreements, but in practice, most MSMEs do not follow OSH practices because of the relatively high cost. MSME contractors do not consider PPE a justifiable investment particularly when many employees in the sector are casual or temporary. Even for the contractors that do invest in PPE, challenges still prevail in motivating employees to use this equipment. Some workers choose to wear their PPE at social events as a sign of social status while preferring to wear their older, well-used clothing at the workplace. Others choose to sell their PPE to cover household expenses as a pair of safety boots costs between USD 25 and 40. In addition to these challenges, weak awareness and motivation about the importance of using OSH measures limit PPE utilisation.

WAGES AND SOCIAL SECURITY

Minimum wage is gazetted by the government after annual negotiation with labour unions. The National Union of Building, Engineering and General Workers is the leading body that represents construction sector workers. Most building contractors adhere to the minimum wage requirement, however, for small-scale material suppliers, labourers are often paid on a piece rate which depends on work demand.

The Workers' Compensation Fund and the National Pension Scheme Authority (NAPSA) are the main social protection schemes in the country. There is no obligatory health insurance scheme, but the country is developing a National Health Insurance scheme.

Contributions to the Workers' Compensation Fund are mandatory and based on employer contributions. Businesses register a certain number of employees that will be covered by the scheme, which should include temporary employees. The benefits of this scheme include compensation for occupational accidents and diseases. In practice, employee awareness of the scheme in the building construction sector is quite poor. For the MSMEs that registered for Workers' Compensation, the majority of labourers were not aware that their organisation was registered nor of the benefits of the scheme.

NAPSA is also mandatory and is based on employee and employer contributions, each paying five per cent of the employee wage. The scheme is designed to provide a pension fund to those that retire, or an insurance coverage in case of loss of life or a severely debilitating injury. The scheme is available for all employees, which includes those in the formal and informal sector and permanent and temporary employees. However, in practice, scheme systems are not in place to cover those in the informal sector or those working as short-term temporary staff. Another hindrance to wider scheme coverage is that poorly paid labourers from MSMEs are hesitant to enrol in NAPSA as they cannot afford the five per cent personal contribution from their salary. This lack of interest from the employees does not incentivise employers to enrol in the scheme.

Despite the relatively low uptake and awareness of these two social protection schemes, building contractors which are not registered for either scheme are pushing to register for both schemes such that their business is compliant with the government procurement requirements.

ENFORCEMENT

The Ministry of Labour and Social Security has a separate unit for managing labour issues in the construction/civil engineering sector. The ministry mandates regulation for OSH standards in the construction sector, however, businesses are not required to have an OSH management system. Presently, no national level OSH policy exists, though a formal policy is under development with implementation expected in the latter half of 2015. This formal policy will not be enforceable but will state which sectors are to abide by which regulations or acts.

The ministry is also in charge of undertaking site inspections to ensure that regulations with respect to OSH are implemented appropriately by the contractor. These inspections occur on construction sites for both public and private contractors, as long as they are PACRA registered. If contractors are found not to be complying with regulations and there is imminent danger in the way they are conducting works, works on site will be suspended immediately. In most cases of incompliance, the inspector gives the contractor a warning and will revisit the site to ensure the contractor complies with the regulations.

Much like the regulation challenges faced by the NCC, the limited capacity of the ministry severely inhibits regular on-site inspection and proper implementation of its regulations. The agency has severe limitations with human resources and logistics.

CASE SUMMARY 5: MEDIUM-SCALE, WELL-PERFORMING CONTRACTOR

The fifth case study in **Annex 1** of a female owned and managed building contractor is an example of how small-scale contractors can grow to become a successful medium-scale business. The contractor has routinely won government building contracts since opening seven years ago through conducting high quality work that is completed on time. Through this working style, the contractor has grown to 15 full-time staff with approximately 20-30 temporary staff. All workers are subscribed to social protection schemes and even very short-term contractors are provided with comprehensive PPE. As one manager stated, "providing PPE is beneficial for us. How can we get clientele if we don't identify ourselves with quality?" Staff are motivated to work hard through incentives such as financial rewards and food baskets that are given when work is completed on or ahead of schedule. Despite these successes, challenges still remain, particularly those in sourcing sufficiently skilled staff in rural areas and in having sufficient capital to purchase appropriate machinery.

With respect to logistical side, the agency lacks adequate transport, noise measurement apparatus and lab testing equipment. Strong enforcement of the ministry's mandate to monitor working conditions can be challenging as well. Although the ministry is entitled to stop works on a noncompliant construction site, these sites are largely staffed by temporary employees whose pay depends on the continued progression of the project.

3.2.3 PROCUREMENT

The Ministry of Transport, Works, Supply and Communication is responsible for the design, construction and maintenance of any public buildings and the Roads Development Agency (RDA) is responsible for the construction and maintenance of public roads. Contracts for both public buildings and roads are awarded by the Zambian Public Procurement Authority and in accordance with the Public Procurement Act. Both authorities have inspectors that check on the progress of works to determine if the works are being constructed as specified in the tender documents. The ministry, however, have too few human resources to conduct inspections as is necessary.

The tender evaluation methodology, as stated in the Public Procurement Act, is dependent on the "contract type, value and complexity." The act also states that the evaluation methodology and criteria should be clearly stated in the bidding document or request for proposal. Although contract evaluation methodology is dependent on the contract, the evaluations of most tenders are heavily weighted on price.

A government pronouncement stipulates that at least 20 per cent of the contract value in public road construction works valued over USD 4.7 million[21] should be subcontracted to a construction company that has majority local ownership. It should be noted that this is not a mandate or law, but purely policy. The policy objective is to distribute work among local contractors and in the process, build local contractor capacity to participate in larger contracts in the future.

To be eligible for the award of subcontracts associated with road construction, the contractor must submit a profile to the RDA. When the main contractor is awarded the works, the RDA provides a list of qualified subcontractors to undertake the work. The subcontracted works should be allocated to approximately five contractors, with award preference given to subcontractors that are based in the district or province of the proposed project works.

One of the consequences of mandatory subcontracting of large contracts is that the financial risk and social responsibilities (including Social Security) can shift from the main contractor to the subcontractor. That is, if the main contractor wins a tender with a set price, it is up to their discretion to section out elements of the work and at which price. Inevitably, the desire for the main contractor to protect or maximise its profit margin encourages these contractors to subcontract elements with much lower profit margins, thus shifting the financial risk to the subcontractors. The primary mechanisms to complete these works under the constraint of narrow profit margins are to sacrifice project quality and to employ a large temporal workforce with lower wages and less social protection. Subcontracting works to businesses with a high proportion of temporal staff also has knock-on costs to the government, as taxes are not paid on temporary staff wages and contributions are not made to social security institutions. The main contractor has ultimate responsibility for the working condi-

[21] Value is 30 million Kwacha. Exchange rate of 6.4 Kwacha/USD used in calculation.

tions and safety measures implemented on site, however, this responsibility is only enforced if the site is inspected by a government official.

Procurement regulations for MSME contractors can be restrictive to their participation in the tendering process. For example, tender documents cost around USD 80 per project. If a project is located within 12 different districts and the company wishes to submit a tender in each district, the tender documents would cost nearly USD 1,000. A second barrier for MSMEs to government procurement is that a two per cent bid bond is required as a guarantee on any tender submission. Obtaining this bond from a bank can be difficult as banks require collateral from the MSME itself, which can be in the form of a cash guarantee or the deed to a house of one of the directors. An insurance guarantee can be used in lieu of a bank bond, however, contractors have the perception that tenders submitted with a bank bond are more likely to be awarded the contract than those submitted with an insurance claim. Thus, the procurement regulations foster a difficult environment for capital constrained MSMEs to actively engage and participate in tendering for public contracts.

MSME building contractors have further concerns with the tendering process. Some expressed frustration that they cannot compete as the winning firms are bidding low and are sacrificing on work quality, and that the awarded contractors are not penalised for poor work quality.

CASE SUMMARY 6: NEWLY ESTABLISHED CONTRACTOR

The sixth and final case study in **Annex 1** identifies the challenges of entering the building construction sector as a new, small-scale player.

The directors of this company have worked hard to adhere to government rules and regulations in attempt to win public contracts and grow into a successful large-scale contractor. They dedicate substantial efforts in tendering for government projects, visiting the potential worksites and meeting with local officials, but have yet to win a public contract, and thus barely stay in business via a few contracts from a reliable private client. The largest hurdle they see in winning government contracts is that the procurement process is highly unfavourable to small-scale contractors with the two per cent bid bond and the high cost of tender documents. These barriers restrict their ability to tender on numerous projects at the same time. They believe foreign contractors use their financial advantages to win these contracts. High competition was also stated as a large hurdle to success as there are too many contractors applying for the same work packages.

3.3 PERFORMANCE OF BUSINESS ASSOCIATIONS & REPRESENTATIVE BODIES

A number of business associations and representative bodies serve the construction sector. Among them, the National Association of Medium and Small Scale Contractors (NAMSSC), Zambia Association of Women in Construction (ZAWIC), Association of Building and Civil Engineering Contractors (ABCEC), National Union of Building Engineering and General Workers (NUBEGW), Zambia Institute of Architects (ZIA), Engineering Institute of Zambia and Zambia National Association of Sawmillers (ZNAS) appear to be the most prominent. These business associations are responsible for organising actors together while coordinating and lobbying the supporting functions and the rules and regulations alongside the core value chain.

ZIA represents over 100 members out of about 175 registered architects. NAMSSC, which was established approximately 12 years ago under the NCC Act and represents Grade 4, 5 and 6 contractors, has approximately 860 paid members, and in total, 1,500 members which includes non-registered construction businesses. ZAWIC represents 78 out of about 200 construction businesses run by women, the vast majority of which are micro-scale and in the NCC Grade 6 category. Both NAMSSC and ZAWIC are staffed by volunteer board members and are financed by member contributions. NAMSSC has one paid staff leader in each province. Both associations intend to provide capacity building opportunities and lobby government on behalf of and for benefit to their members.

To help alleviate this competitive market on building construction MSMEs, NAMSSC have advocated that a bill be drafted by the Minister of Transport, Supply, Works and Communication so that 20 per cent of all government construction contracts are awarded to local MSME contractors. This policy serves to expand upon the existing 20 per cent subcontracting pronouncement for road construction projects.

From the perspective of their individual members, NAMSSC and ZAWIC have yet to deliver tangible benefits. Both organisations are perceived to provide weak representation during negotiations and link few members with seminars and workshops organised by development projects. Non-members have the perception that the organisations do very little to warrant the membership fee. The two associations appear to have limited capacity to manage their respective organisations and in their ability to create benefits for their members. They both lack a clear business plan and long-term vision/strategy to achieve their mandate.

ZNAS is well organised and has strong leadership. The association was established in 2009 with 53 members and has grown rapidly to its current size of 403 members. Most of the members are small-scale enterprises which employ around 10 workers. In total, over 4,000 jobs have been created by the sector. About 25 percent of the sawmiller owners are female entrepreneurs. The association receives financial support from the Finnish Government through the Finland Embassy in Zambia and are planning to create an industrial zone for timber mills and related services from that financial support. ZNAS provides a suite of member services which includes a credit guarantee scheme to support financial requirements, training opportunities and facilitating the acquisition of new technology including machinery and trucks.

NUBEGW is a workers union affiliated with the Zambia Congress of Trade Unions (ZCTU). NUBEGW represents construction workers in dialogue with the government, particularly in relation to setting minimum wage levels and regulatory reforms linked to construction workers.

Membership of construction workers within labour unions is very limited. At nine per cent, construction worker union enrolment is the second lowest among the 21 jobs sectors identified by the CSO and one third the rate of the national average.

4. CONSTRAINTS ANALYSIS

4.1 CORE CONSTRAINTS

A constraints analysis was performed to find the key underlying issues in the functions, rules and regulations restricting improved working conditions within the sector. For each core constraint, the associated symptoms and root causes are identified in Table2.

Table 2: Building Construction Sector Core Constraint Analysis Summary

Constraint	Symptoms (effects of constraint)	Root (systemic) causes
Lack of consistent public contracts awarded to domestic MSMEs	• Inconsistent contracts minimise MSME incentive to employ permanent staff such that MSMEs are not willing to invest in training, OSH or social protection schemes for temporary employees. • Firms engage in other businesses outside the construction sector to generate other sources of income, which restricts their ability to specialise within construction.	• High entry costs for MSMEs to tender for public contracts including tender cost, bid bonds, and NCC membership fees. • Provision and quality of large road construction subcontracts not awarded to a sufficient number of subcontractors to help jump-start growth for MSMEs. • General dearth of smaller-scale contracts available relative to the demand from MSMEs. • Poor access to financial services – especially working capital - restricts contractor ability to participate in tendering process.
Building construction MSMEs operate with a low profit margins	• Working conditions suffer as contractors reduce perceived cost of social protection, safety and wages to gain a competitive advantage against other contractors. • MSMEs cannot grow and do not accumulate enough capital to invest in the productivity of the business. • Construction quality is poor as contractors attempt to cut corners to save money.	• Overabundance of general contractors without a specialised field of work. • Tenders commonly awarded on price submission with little regard for quality of work history and working conditions.
Inconsistent payment from client to contractor	• Labourers are not paid on time and have difficulty surviving financially. • Contract risk borne by the contractor. • High-interest costs incurred on borrowed capital to the contractor. • Poor staff retention.	• Irregular capital streams to the client or lack of client access to capital restricts their ability to pay on time. • Informal works performed on agreement without a contract stipulating payment terms and conditions. • Contractors do not hold the government accountable for delayed payment due to fear that they will be blacklisted from participation in future government tenders.
Lack of specialised domestic labour force	• Poor quality work. • Incurs high turnover and absenteeism for MSMEs as skilled labour are in high demand and thus are highly mobile to find work opportunities elsewhere.	• Lack of affordable training opportunities to meet demand. • Management and supervisory roles for large contractors are filled by international staff, hindering career progression and reducing the supervisory training opportunities for local workers.

Constraint	Symptoms (effects of constraint)	Root (systemic) causes
	• Contractors do not want to train skilled staff knowing they will leave to find a more lucrative job once skilled.	
Poor employee and employer awareness of OSH practices	• Preventable and chronic injuries are prevalent. • Labourers, particularly those employed as temporary staff or in informal businesses, have insufficient PPE and limited if any safety training. • Formal accident and near miss reporting /registry is non-existent in MSMEs.	• The limited capacity of the NCC and Ministry of Labour and Social Security to undertake regular site inspections. • High proportion of non-registered building materials firms unaware or uninterested in compliance with OSH regulations.
Inappropriate or insufficient equipment/ machinery	• Significant product losses, particularly in the timber supply sector (50%). • Heavy dependence on unskilled labour. • Longer contract and project completion duration. • Inconsistency in work quality. • Lack of capacity to increase NCC grade due to machinery requirements and win government tenders. This restricts a MSMEs' ability to compete for larger government contracts.	• Lack of domestically produced heavy machinery compounded with high import costs and duties severely increased costs to purchase machinery. • Contractors do not have access to capital to buy this expensive equipment and machinery. • Few rental providers for non-road construction project, and for common small-scale machinery, tools and equipment that are most appropriate for MSME building contractors
Low employee participation in social protection programmes	• Employees often do not participate in NAPSA and will not have sufficient social security to retire at an appropriate age or cover their families in an emergency. • Employees not availing of Workers' Compensation may continue to work with an injury, thinking that their job will be in danger if they report the injury.	• Lack of promotion of the social protection schemes, who they cover and what their benefits are for employers and employees. • Lack of accessibility for businesses to register. • Lack of employee/employer knowledge of benefits.
Business environment not conducive to MSME growth	• Firms cannot become more efficient • With an inability to grow, firms cannot spread risk by diversifying services. • Labourers have less supervisory positions to grow into, inhibiting their ability to become more skilled.	• Lack of supply in financing available for MSMEs engaged in construction. • Lack of financial literacy for MSMEs to source financing from private financial institutions. • Lack of structured BDS providers to assist MSMEs engaged in construction. • General dearth of contracts available relative to the demand from MSMEs.

5. SECTOR VISION

5.1 UNDERSTANDING INCENTIVES AND CAPACITIES

A market systems analysis helps identify dynamics, transaction-based relationships and the incentives and capacities of key actors which underpin the 'way they do business'[22]. A deep understanding of these incentives, and not just the capacities, of actors is required in order to conceptualise their ability to take on board new ideas, innovations and ways of working that can potentially improve working conditions.

This analysis suggests a response that is sensitive to the different incentives at play depending on whether an MSME is a high-performing business (already winning contracts and growing – likely a larger firm) or a low-performing MSME (with irregular clients and low capital investment – likely a smaller contractor or allied service provider).

Larger MSMEs are currently more likely to invest further in working conditions - such as training, contributory schemes and insurance - and respond better to push-factors such as regulation to maintain their position in the market. These firms are more liable to be inspected, more attuned to reputational risk factors, and keen to maintain good client relations. These types of MSMEs have high business incentives, but gaps in capacity - the supply of adequate skills, technologies and schemes to improve working conditions - still remain. The 'carrot' these firms will likely respond to is that investment in improving working conditions can improve their business performance (through reduced absenteeism, incentivised workforce, less time lost due to accidents and company image) in an increasingly competitive marketplace. However, this will only work if their clients – and public contracts are prominent in this – factor job quality concerns into tendering and do not exert a 'race to the bottom' by only accepting the lowest price bids.

Smaller MSMEs[23], where the worst working conditions are found- particularly in allied service providers such as building construction materials - currently have a low incentive and a low capacity to improve working conditions, and are unlikely to raise these until their core business performance improves. The reason that they are not winning business more regularly is not because of poor working conditions *per se*: this is more often the symptom rather than the cause of under-performance in the market. A growth strategy should go hand-in-hand with a push for greater MSME investment in working conditions that is 'right sized' to the norms and context they operate within, adding value to business performance but not overloading already fragile actors. The primary incentive that these firms will respond to is to upgrade their position in the market through more regular contracts, predictable payments and access to markets which place value in quality construction work, at the same time as rationalising the financial burdens and delays caused by workplace accidents and sickness.

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[22] See ILO's "Extending social protection to vulnerable workers in Zambia's building construction industry", Zambia Green Jobs Programme.
[23] MSMEs with fewer than 25 employees.

5.2 TOWARDS SYSTEMIC CHANGE: BUILDING A BUSINESS CASE

This section outlines a possible vision towards building a sustainable 'business case' to improve working conditions in the construction sector.

The findings of the analysis - based on Table - suggest that binding systemic constraints to improving working conditions in MSMEs include *access to investment and working capital*, particularly to invest in assets, participate in bids and overcome delayed payment schedules; *public tendering and procurement processes* that do not maximise the potential to influence standards across the sector; and the *precarious performance of many smaller firms and their stagnant growth* which means many firms operate with narrow margins or at a loss, disincentivising investment in their workforce. Business services (skills) and infrastructure (machinery) were deemed further constraints that were not systemic in nature[24].

The theory of change is that investment in better working conditions can occur:

- *If* public tendering and procurement processes are revised to become a tool to influence standards and working conditions norms across the industry, taking into account the history of firm performance as well as price;
- *And* effective and carefully assessed pro-MSME policies are in place, with public (sub)contracts inclusive of a sufficient number of smaller-scale building contractors to help jump-start growth for MSMEs;
- *And* improved financial products for MSMEs are available and accessed, especially to ease constraints on working capital that allow participation in tendering processes without compromising allocations for working conditions investments;
- *Then over time,* the capacity for more sophisticated regulation and enforcement is improved to undertake regular site inspections and to promote compliance with OSH regulations;
- *And* employee participation in MSME-sensitive social protection programmes gradually increases, particularly through employer promotion of existing schemes such as Workers' Compensation and new innovations for savings, insurance and pensions.

To achieve this vision, a set of integrated, mutually-supporting interventions are listed below. These are designed to provide the framework for further market analysis, action research and to pilot new business models. They reflect the fact that building a business case - and understanding incentives that underpin market player behaviour - is a *process*, not an *event*. Generally speaking, the most important area for further analysis is in the 'rules of the game' – systems such as public procurement that shape how firms operate and generate revenue and win bids from clients and shape incentive structures for firms to invest in their workers.

[24] Systemic constraints were prioritised for 'action' based on feasibility (ease of over-coming the constraint within the programme's time period) and significance (the importance of the root cause being addressed). A business service such as skills has not been included as systemic, as this was covered under the initial Network Analysis and is already an integral part of the Green Jobs programme. Access to finance has been repeated as it was deemed to be a critical constraint to growth which inhibited improvements in working conditions. Machinery has been included under access to finance as demand for this is closely related to increases in the supply of capital.

INTERVENTION AREA 1: IMPROVED PUBLIC TENDERING SPACE INFLUENCES POSITIVE STANDARDS ACROSS THE INDUSTRY

Current tenders have financial entry barriers to smaller-scale contractors and contractor work quality is not strongly considered during the award process. MSMEs are under strong competition which puts pressure on them to submit increasingly low budgets, reducing margins which erodes space for adequate investment in OSH equipment, training and social protection.

Procurement is an important tool for the government to influence standards across the industry, particularly as it is the major building construction client. This potential is not being maximised. It is not clear, however, beyond the integration of quality criteria in tender, what additional measures – such as levies on bids for large firms to subsidise social security funds – could be taken, or what the effect of these would be on enterprise performance, productivity and incentives.

INTERVENTIONS:

1.1 Conduct a deeper analysis of the public procurement system. As the most important 'interconnected' system to understand, this end-market largely dictates how the 'core' market of building construction functions. Such an analysis needs to unpack and understand the incentives and capacities of actors involved in government tendering, their potential to change, and their vested interests. This should also draw on international experience of procurement as a policy tool (for example, in South Africa[25]). This also needs to understand systems that influence incentives for reform (for example, an incentive for politicians might be reputational maintenance, which will lead to looking at the effectiveness of third party scrutiny systems, such as media[26]).

INTERVENTION AREA 2: SMALLER MSMES PERFORM BETTER AND UPGRADE THEIR ROLE IN THE VALUE CHAIN TO IMPROVE OCCUPATIONAL SAFETY AND HEALTH (SHORT-TERM) AND THEIR ABILITY TO PARTICIPATE IN SOCIAL PROTECTION SCHEMES (LONGER-TERM)

While large public works are undertaken by a small group of players, mostly foreign construction companies and larger MSMEs, the majority of workers are employed in smaller MSMEs (86 per cent in firms with under 25 employees[27]) who rely on a stream of smaller private clients and occasional participation in public contracts through subcontracts.

However, subcontracting and horizontal cooperation (where companies in the same stage of production in the supply chain work together to cooperate and gain benefits) has generally not worked well to-date. Enterprises of different sizes cannot engage on equal footing, there are barriers of social capital and culture (particularly between foreign and domestic firms), and knowledge transfer is minimal.

The government and industry associates are attempting to force inter-firm cooperation to distribute work among local contractors and in the process to build local contractor capacity to participate in larger contracts. Current pronouncements do not work in practice and it is unlikely that merely codifying these into law and expecting enterprises to automatically comply will make a great deal of difference.

At the same time, there is potential for more effective subcontracting not only to form a core strategy for MSME growth, but also to plug gaps in working conditions. Increased incomes are important to provide workers, and the enterprises they derive

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[25] See Bolton's "Government Procurement as a Policy Tool in South Africa" (2006).
[26] See Lusaka Times article (2013): http://www.lusakatimes.com/2013/01/04/workers-protest-over-alleged-poor-working-conditions-and-inhuman-treatment-by-the-chinese-contractor/
[27] See the Zambian Central Statistical Office 2012 Labour Force Survey

wages from, the ability to afford and participate in social protection schemes. In the absence of effective public enforcement mechanisms, the burden of monitoring adherence to good OSH practices in building sites could also fall on the main, larger contractors who have the capacity to more routinely carry this out (as they currently do for their own sites).

INTERVENTIONS:

2.1 Conduct a cost-benefit analysis and more rigorous assessment of the impact of proposed "20 percent majority local ownership" policy. The current pronouncement has loopholes that are being exploited (in-name-only local 'owners') – and how this 'rule' affects the incentives and performance of firms is not fully understood. Any ambiguity in the policy and mandate will reduce its effectiveness as main contractors can pass risk on to the subcontractor. Consequences of the proposed policy – and its enforcement – needs to be considered by the Ministry of Transport, Works, Supply and Communication, the Roads Development Agency, NAMSSC and NCC not just from a growth angle, but also from a working conditions perspective.

2.2 Support NAMSSC and other associations to engage in more effective, evidence-based lobbying for policy and procurement change. One industry response to the underperformance of the "20 percent" policy is merely to lobby for it to be increased to "50 percent" in the hope this will catalyse faster change. There is currently little evidence to inform this kind of advocacy, and, indeed, such policies can prove detrimental if not carefully assessed. Along with interventions area 2 and 3, a great deal of potential reforms are underway – a strategic approach to lobbying for which is feasible and fact-based would help increase the chances that these can actually translate into improvements to MSME performance in the sector.

2.3 Pilot a contractor-subcontracting model to demonstrate the potential of horizontal cooperation, drawing on international lessons. There currently are no 'best practice' examples of this kind of arrangement working in the industry which can provide a potential demonstration effect. This pilot would need to research lessons from international experience of subcontracting in the construction industry that can be adapted to the Zambia context, successfully identify an incentivised lead firm, measure impact (both on business performance and working conditions) and understand the pathway to demonstration and crowding-in of more enterprises.

INTERVENTION AREA 3: MSME FINANCING AND CREDIT OPERATES AS AN ENABLER FOR BOTH GROWTH AND WORKING CONDITIONS IMPROVEMENTS

Payments from clients to contractors are delayed, tenders require capital to access, loans – even high-interest ones – are rarely available in the 'middle' ground between microfinance and commercial banks: all meaning that MSMEs operate in a tight financial space with problems of raising day-to-day cash required to pay workers, let alone providing the training, equipment and schemes to ensure workplace safety.

Building on the Green Jobs Programme's existing work in the financial sector from a green growth perspective, there is potential to explore ways to link this capital for growth into mechanisms to improve working conditions. This would build on in-process work under the social protection component of the programme to adapt ongoing initiatives or launch new schemes (health savings, mutual credit and savings schemes).

INTERVENTIONS:

3.1 Pilot models to link finance and credit provision to innovative social protection schemes. As new or existing schemes reach maturity, innovative 'add on' services to social protection, such as savings schemes that partner with banks to offer loan products tailored

to member needs, can be explored. These should integrate learning from international experience[28], and ensure that returns on investment are modelled in theory, and tracked in practice.

3.2 Conduct research to quantify the precise costs and benefits for employers to invest in social protection schemes. This should be specific to the type of scheme envisioned – for example, accident insurance for building construction MSMEs – and not generic (i.e. costs and benefits of working conditions for all MSMEs connected to construction). This tight focus will allow for high standards of rigour in quantitative data collection, drawn from a representative sample of enterprises that the scheme is aimed at. Costs captured should include both financial and non-financial, such as opportunity costs, time wastage and productivity losses that MSMEs currently face when dealing with issues that the scheme will help smooth (for example, paying for medical bills for employees when they fall sick). This research than then be used as part of a wider strategy to change the mind-set of employers and their representatives for better scheme registration and improve coverage[29].

[28] See Ergon Associates' forthcoming study "International Practices for Extension of Social Security to the Construction Sector"

[29] The ILO facilitated a similar collaborative approach between NAPSA, Workers' Compensation and COSTIGA/ZNAS.

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ANNEX 1: CASE STUDY SUMMARIES

Case Study 1: Strong Performing Large-Scale Building Contractor

This case study provided an understanding of the potential of the Zambian construction sector, in terms of high achievement from a business and working conditions perspective. The large-scale contractor, which is involved in construction of buildings, roads, networks, as well as other civil works, invests heavily in the training and development of unskilled staff. This investment leads to their staff becoming strong contributors to this project, and if possible, to future construction projects within the organisation. The contractor has created a strong culture centred on skills development, strong working conditions and above average wages which helps motivate staff to perform better and in turn leads to stronger organisational performance.

COMPANY SNAPSHOT

Size: 20 experts, 125 labourers

Area of Business: Buildings, civil works, roads and networks

Business Performance: Growing

Working Conditions: Very Strong

Registrations: NCC, NAPSA, Workers' Compensation, PACRA

Working Conditions

This building contractor has very strong working conditions in terms of OSH, social protection and culture instilled in the employees. The contractor pays unskilled staff 20% higher than the gazetted minimum wage and all employees are provided a formal contract, access to health insurance, NAPSA, Workers' Compensation and comprehensive PPE that is issued twice per year. The company pays for medical expenses, hours lost to sickness and provides USD 20 per month for their employees for personal medical upkeep.

Before staff commence employment with the organisation, the company invests in a five-month course led by international consultants aimed at training staff to operate power tools and to work at height. Supervisors also take a two-month training course.

At one large construction site, the organisation employs one senior safety officer and three junior safety officers who routinely perform site safety inspections and conduct audits on the safety procedures that are implemented by staff. Prior to commencing the work day, each staff member participates in a safety talk and there are short daily risk assessments which are conducted in different languages to ensure that the message is delivered. If a near miss or accident occurs, the company registers the event and immediately identifies corrective measures to ensure that a similar event or worse does not occur in the future. After the corrective measure is implemented, it is closely observed to ensure that the measure is working appropriately. The company rewards strong work and safety performance through an internal competition called "performers of the month". Thus far, measures have been effective; the construction team had only experienced one minor injury in the previous six months, a minor cut to a labourer's finger.

Management Perspective

Management believe that staff are key to their success and thus they have created a culture that engenders staff to work hard for them. As a construction site manager said, ***"the production comes from them."*** They believe that they have found the best way to optimise the contributions from their staff and feel that the investment in working conditions pays strong dividends in terms of motivation and performance.

Apart from providing strong working conditions, a lack of hierarchical management structure at the construction site has also proved beneficial as management believe it is important to be approachable by all staff members. Management cited that working with the labourers on physical tasks showed a consolidated team effort to enhance morale. Also, when staff reached key milestones, they were rewarded with a company barbecue.

Staff Perspective

Staff are very positive about their working experiences with the organisation. They found that everyone works in an appropriate space and that open communication between staff facilitates a strong work environment. If staff feel like they are lacking any necessary safety equipment, they will communicate this need to management and the organisation will provide the equipment immediately.

Staff acknowledge that working conditions and pay are better than in other construction companies and that this serves as a strong performance motivator. As one staff member said in relation to the working conditions, ***"this is the best place I have seen in Zambia."***

One frustration that was expressed by staff was their concern that their contracts would not be renewed after the works completed on the site. They are aware that management try to employ as many existing staff at their next construction site, but none were certain that they would be included in the organisation's long-term plans.

Business Outlook

Even with such a dependence on unskilled labour, the business has an extremely low staff turnover. By working as a cohesive team and investing in employees and working conditions, the organisation appears to be conducting high quality work that impacts their future business performance. Management indicated that organisation is growing and that numerous private investors are contacting the company about future construction projects.

Case Study 2: Small-Scale, Poor Performing Building Contractor

The case study tells the story of the perennially challenged small-scale building contractor that maintains just enough work to keep business afloat, but not enough to grow the business or enhance working conditions. This contractor engages in a variety of building construction activities which are mostly limited to small-scale construction pieces for buildings, such as doors and windows, ceilings, roofing and office partitioning. The contractor has a poor track record of working conditions, as PPE and safety measures are barely implemented and the organisation does not participate in mandatory social protection schemes. Upon visual inspection of the workshop, the materials, machinery and workspace were highly unorganised.

COMPANY SNAPSHOT

Size: 2 directors, 4 full-time staff, 2 temporal staff

Area of Business: Building fit-outs, roofing, partitioning offices, masonry

Business Performance: Stagnant

Working Conditions

From an occupational safety and health perspective, the working conditions for this contractor are quite poor. For those cutting timber at the workshop, the table saw is used without a saw guard and the operator does not use sticks to feed the timber through the saw. Some permanent staff were sent on safety trainings and all are provided with basic PPE. Temporal staff are provided with very limited to no PPE. One permanent worker expressed his concern over the lack of safety culture, ***"in addition to these trainings, there is a need for safety attire. We need work suits, boots, and dust masks; we used to have helmets too."*** This same worker had been injured twice within the last two years, once while striking his leg with a pick and another time stepping on a steel nail at the workshop.

Staff and management agreed that PPE was not provided due to a lack of capital. One older labourer summarised the working conditions at this firm in saying, ***"this organisation is not in good shape, it lacks safety and is a mess from an organisational perspective."***

As for social protection, the business was not enrolled in NAPSA or Workers' Compensation, though were in the process of enrolling in both schemes such that they could be eligible to be awarded government contracts. Management understood that there is value in providing Workers' Compensation, but saw challenges in implementing NAPSA. For NAPSA, management mentioned that employees were not interested in participating as the five percent employee contributions to the scheme required too much salary sacrifice for employees struggling to make ends meet. Management mentioned that this challenge was not exclusive to their firm, but rather, a much larger problem that the majority of small-scale firms experienced.

Management Perspective

Management are looking to transform the business by registering with the NCC and mandatory social protection schemes such that they are eligible to win government contracts. They cited capital as the largest constraining factor to the business. This lack of capital limits their ability to acquire machinery, make regular

payments to staff, invest in better working conditions, and appropriately market the business, all of which if actively engaged in, would lead to strong business growth.

The client-contractor relationship in small-scale private construction jobs is also restrictive. Often the contractor waits for the client to save sufficient money to buy the materials for particular project phases. This creates a stop-start project flow which incurs project delays. Not only is payment delayed with this style of project, but often the clients do not have sufficient funds to pay the contractor upon phase completion of the works. The director estimated that their clients paid them on-time about half of the time. Irregular payments from clients hinder staff morale, as the director articulated, ***"when we are not paid on time, we have to plead with our employees to give us more time."***

Tendering was identified as serious business challenge. Management cited that they bid with a very narrow profit margin and that despite completing proper tender submissions, their organisation loses to more informal firms that sacrifice work quality. From their perspective, competitors are winning because they do not pay rent, do not train staff, are not registered and most importantly do not complete the work with any quality.

Keeping highly-skilled staff was also identified as a challenge due to high demand for these staff. The director identified that their skilled labourers move relatively easily to other businesses for better wages. Another problem with highly-skilled staff is that they contract themselves to private jobs that conflict with their work obligations which consequently incur job absenteeism. These issues with the work mobility of highly-skilled staff provide a disincentive for management to invest in training staff.

Staff Perspective

All four employees interviewed for this case study cited that a lack of capital was restrictive for the business. As one employee stated, "***without this capital, how can you move out?"*** They agreed with management in terms of the restrictions that a lack of capital imposes, though most notably were disappointed with the irregularity of payments.

Piece rate contracts were also cited as serious concern, particularly with the irregular and often poor work streams. As one employee identified, ***"in months where there is no business we don't get paid. At the moment it is difficult to save from my wages because money is difficult to get these days."***

Business Outlook

Management is optimistic that business will improve once they have the necessary registration to participate in the public procurement process. They believe that if money and tenders are available, SMEs have the potential to grow.

Case Study 3: Door - and Window-Frame Supplier

COMPANY SNAPSHOT

Size: 1 director, 2 full-time staff, 3 temporal staff

Area of Business: Supply of door/ window frames, steel gates, etc.

Business Performance: Stagnant

Working Conditions: Very Poor

The severe business and working condition challenges faced by the average micro-scale building materials supplier are exemplified by this case study. The business, which supplies steel gates, tanks, window frames, door frames, and grill doors, has exceptionally challenging working conditions that have incurred severe health issues to some of the labourers. Some of these issues are a direct result of the primary operational activity of welding in an unsuitable work space. The business does have a small workshop, located within a container, though it does not appear to be of sufficient size as labourers actively choose not to use the space.

Working Conditions

For this business, and countless other building materials suppliers like it, there is very limited OSH culture and consequently very poor working conditions. The business does provide basic PPE for the two full-time staff which includes safety boots, work suit, safety glasses, and gloves. However, upon visual inspection, the usable life of this PPE, which was highly inadequate to begin with, had long since expired. As one full-time

worker described,***" I don't use gloves most of the time because they can catch fire and cause serious injuries. There is need to provide masks to avoid inhaling fumes."***

For the three temporary staff, no PPE is provided. One worker was observed welding a door frame on the ground, hunched over, without gloves or mask, wearing low-quality sunglasses, a t-shirt and sandals with his arms and feet completed exposed.

The owner identified that health and fatigue are a reoccurring problem due to the nature of the work and that the business has about one case of employee fatigue per month. The consequences of this lack of OSH culture and the little hope for improved working conditions were articulated by the brother of the business owner who is also a labourer, ***"my back always hurts, I am regularly electrocuted by our homemade welding gun, my eyes hurt at night, I've had a cough the past two months, I have burns on my arms, but this is part of the job."***

None of the staff are covered by mandatory social protection schemes though the business does cover the medical bills that its employees incur.

Management Perspective

The director identified that the business' biggest problem is a lack of available capital. He identified that it is perceived that access to capital is difficult though conceded that he still has not tried to access external capital. If his business had better access to capital, the director would purchase proper and safer equipment, like an industrial welding machine. With an appropriate welding machine, they would no longer be required to use their homemade welding machine which frequently electrocutes employees. Additional capital would also facilitate more constant payment streams to steel suppliers and employees. While conducting a case study, a steel supplier came to collect payment from the director for materials supplied earlier; however, the director could not pay the sum as he had not been paid for the works that the steel was used to complete.

Finding employees for this business is not difficult as, according to the directory, many are competently skilled to perform the tasks. Even with this abundance of available labour, the business prefers to hire those that have not had any training. This is done such that a prospective employee can learn the trade within the business and via on-the-job training. For those doing an informal apprenticeship with the company, they are paid around 10% of the contract value, while full-time employees generally earn four times that amount. Despite training staff internally and thus being able to control the quality of their work, work quality is a challenge to the business. The director identified that his employees had to redo work on several occasions when the quality did not meet the client's expectations.

The director feels that he spends an appropriate amount on PPE and that this expenditure has helped reduce accidents and injuries among workers. He also believes that providing PPE motivates workers.

Staff Perspective

Neither of the employees interviewed for this case study considered this a long-term profession. One said he was trying to save enough money, such that he could open his own building materials supply company and then be able to save money to advance his education. The other employee uses any money saved to engage in agriculture.

The employees fully recognise the overabundance of similar businesses and welders alike. One employee identified the difficulty in the irregularity of work contracts, "***sometimes we stay for five months without any job but we keep coming for work."***

Business Outlook

The owner finds business growth impossible due to an overabundance of similar suppliers, consequential narrow margins, a lack of capital, and irregular and sometimes non-existent payments from his clients.

Case Study 4: Micro-Scale Timber Supplier

The challenges which are inherent to many small-scale timber suppliers are typified through this case study. This supplier, who operates in a compound among twenty other suppliers and ubiquitous piles of scrap wood and mounds of sawdust, has two skilled staff who work as machine operators and two helpers. The two skilled staff are paid on a monthly basis and the two helpers are paid for on a piece rate. None of the staff have formal contracts. Approximately 50 percent of the harvested timber product is wasted which is represented on site by smouldering burn piles of sawdust and scrap wood around the compound Waste appears to be of very little concern to those within the business.

COMPANY SNAPSHOT

Size: 1 manager, 2 full-time staff, 2 temporal staff

Area of Business: Timber supply

Business Performance: Stagnant

Working Conditions: Poor

Working Conditions

Working conditions on site are generally poor, though some basic safety and social protection measures are in place. The business provides staff with incomplete PPE. Full-time staff are equipped with safety glasses, helmets, work suits and boots. Part-time staff are provided with a work suit and boots though lack a dust mask, helmet, gloves and safety glasses. With so much excess sawdust from this supplier as well as the many other suppliers around the compound, winds within the site circulate sawdust through the air, which can enter the respiratory system or become lodged in eyes without appropriate protective equipment. The manager acknowledges that all of the appropriate PPE is not provided, but feels that he cannot provide all of the necessary equipment because his business makes such little profit.

As for safety training, each staff member goes through a safety briefing prior to becoming employed. The organisation also has safety briefings several times per month and a company safety policy was drafted by the manager. The manager says that many other timber suppliers do not conduct safety trainings, let alone have a safety policy.

The company provides some social protection as they are enrolled in Workers' Compensation; however, the business is not subscribed to NAPSA. Although enrolled in Workers' Compensation, neither of the workers interviewed were aware that the company subscribed to the scheme. The company covers the cost of medical bills for its employees and the salary of full-time staff when they miss work due to illness.

Management Perspective

Management of the timber industry is the largest concern for the manager. ZAFFICO, which issues the harvest permits and controls the timber quotas per permit holder, issues 35 cubic metres per month to the majority of permit holders, including this timber supplier. According to the manager, the limited quota is the primary constraint that restricts business growth. He voiced concern in saying, ***"my business will always be limited by the timber quota, we cannot grow unless the quota grows."***

The manager insisted that he would like to provide the best possible working conditions for his staff; however, the timber quota severely restricts his business ambitions and the capital available to provide such conditions.

The poorly developed distribution networks for timber supplier are another challenge. The manager travels from the Copperbelt to Lusaka once a month to sell timber at a market as he can get the best price for his product there. That is, he will go through the process to hire transport, rent a market stall and stay in Lusaka for a week to sell off his timber in lieu of selling it to a local distributor. Transport costs during rainy season are another concern for the owner, as these costs reduce profits or sometimes cause losses due to the inaccessibility of the trees at this time.

Staff Perspective

Staff identified the primary concerns for the business as capital and incomplete PPE. One of the staff members expressed concern over job security as he felt that the owner might give up on the business and leave them without employment.

Business Outlook

The quota system appears to dictate the level of success for timber suppliers. With the current quota, the suppliers can maintain a micro-scale business and cannot grow to a more efficient, larger scale. There is also

uncertainty about whether the business will continue as the manager identified that ZAFFICO are no longer accepting new applications for permits and, in fact, are planning to reduce the number of permit holders.

Case Study 5: Medium-Scale, Strong Performing Building Contractor

COMPANY SNAPSHOT

Size: 2 management, 13 full-time staff, 20-30 temporal staff

Area of Business: Building construction, schools, health clinics, apartments, local courts

Business Performance: Growing

Working Conditions: Strong

This is an example of a small-scale, growth-oriented contractor that has become a successful medium-scale organisation. The owner of this company is a successful female entrepreneur. The contractor has been routinely winning government building contracts for schools, clinics, and local courts since opening seven years ago. Success has come through conducting high quality work that is completed on time. Through this working style, the contractor has grown to 15 full-time staff and approximately 20-30 temporary staff. The business provides strong working conditions for permanent and temporary staff alike. Staff are motivated to work hard through food provisions, and financial incentives and rewards for work that is conducted on or ahead of schedule. Despite these successes, challenges still remain, particularly with respect to sourcing sufficiently skilled staff in rural areas and in having sufficient capital to purchase appropriate machinery.

Working Conditions

With respect to PPE, this contractor provides comprehensive equipment for permanent and temporary staff. Even subcontractors, who are working on site for a short period of time, are provided comprehensive PPE. One challenge in providing this PPE is that workers sometimes sell it; however, the organisation continues to replace the PPE as it is a budgeted element of the project. As one manager stated, ***"Providing PPE is beneficial for us. How do we get clientele if we don't identify ourselves with quality?"*** In addition to PPE, food and milk are provided to site employees on a daily basis and first aid kits are readily available.

Safety training is another important element to the business. Morning safety briefings are performed to discuss safety for the workday. To prevent accidents, the contractor tries not to employ the labourers without proper qualifications for a particular job. They want the right person for the job, as this will minimise safety incidents. They admittedly do not focus on adhering to all of the government OSH rules, but focus on those that are applicable and achievable given the site constraints. The owners and supervisors are aware of the consequences of not being safe. As one supervisor stated, "***we incur a cost if there is an injury site".*** Despite the recognition of safety importance by senior staff, unskilled labourers are not as concerned with safety and view their way of working as normal as it is how they have worked their entire life. Thus, supervisory staff focuses on educating the unskilled staff on safety.

As for social protection schemes, the organisation subscribe to NAPSA and Workers' Compensation, and all employees, temporary or full-time, are enrolled in both. The director once organised representatives from NAPSA to come to the office and to the construction sites to better explain the scheme. The company also provides internal health insurance for all of its employees and has conducted an HIV training course for their staff.

Management Perspective

In the eyes of management, success comes from all workers throughout the organisation. Management have expectations about having work completed on time and to a high standard and these expectations are communicated through weekly or sometimes daily meetings. To get high performance from their labourers, management attempt to be in touch with what workers need to be well motivated. Management believe financial motivators are most effective and that they are much more motivating than providing a safe place to work. If the labourers finish a job on time, a bonus will be provided. Staff are sometimes provided vegetables on Fridays and lunch is provided every day at urban construction sites and all meals are provided at rural sites.

Business has been growing due to beneficial government policies geared toward infrastructure investment. Management believe that they have had success with the public procurement process because they do high quality work and because most other contractors do not have the appropriate paperwork in place to compete in the public tendering space. However, the Chinese contractors have the capacity to bid all of the tenders

and have more machinery and capital, which has led them to more success. In fact, the lack of machinery was one of the concerns highlighted by management as restrictive to the growth of the organisation.

Staff Perspective

Staff are happy with the working conditions and are satisfied with their earnings such that they are motivated work. They feel that there is open communication between labourers and management and that management listen to their needs. They also feel as if they have the appropriate tools and workspaces to do their work. As one site engineer pointed out, ***"at no point have we suffered from a lack of equipment because it becomes expensive in the long-run through wasted time."***

One challenge for the organisation, according to a supervisory staff member who is responsible for sourcing competent local staff, is the difficulty in finding appropriate staff for rural site works. Rural labourers often do not have the skills or the certifications required to work on site, and bringing a skilled tradesman from Lusaka is often not cost effective on these projects.

Business Outlook

Although competition is increasing in the building construction sector, many construction contracts are up for award and this building contractor feels as if they are in good position to continue on the trajectory of sustained growth.

Case Study 6: Small-Scale, Newly Established Building Contractor

COMPANY SNAPSHOT

Size: 3 directors, 2 full-time staff, 5 temporal staff

Area of Business: General building, construction, roofing, maintenance, air conditioning

Business Performance: Stagnant

Working Conditions: Fair

The business selected for this case study identified the challenges in entering the building construction sector as a new, small-scale player. The firm started as three directors, who all had experience with the same building contractor, grew tired of staying in a small-scale construction company and had ambitions of starting a construction company that would grow into a large-scale firm. One year into the entrepreneurial project and the growth has not been as planned. The business is struggling and is surviving on small private contracts. Despite putting in concerted efforts to win public contracts, they have yet to win any. Including the three directors, the contractor has about 10 staff working for them, with three full-time staff and four temporary staff. The workers are sourced from a pool of qualified and certified labourers, many of whom were or are still working for the contractor that the directors had worked for previously.

Working Conditions

The business provides work suits, gloves, helmet, boots, nose masks and safety glasses. According to the workers, this provision is appropriate for the tasks they conduct. In addition to the PPEs, safety is enforced through morning safety meetings with workers and further internal safety talks and inspections to minimise negligent behaviour. The company does not send labourers on formal safety trainings as the labourers have undertaken these trainings for their previous contractor. They do not have a registry for accidents or near misses as they believe such systems are for larger contractors and projects.

The contractor subscribes to NAPSA for full-time employees as well as Workers' Compensation for the entire organisation. They do not provide medical insurance, though if an employee is hurt on the job, they will take them to the clinic. Formal contracts are generally not provided as most of the works are small projects. These small jobs are paid on a contract basis instead of on a monthly wage.

In addition to the above, the company also provides transport, food and milk to their employees. As a reward for meeting a deadline, the company bought all of its labourers bicycles.

Management Perspective

Management have worked hard to adhere to government rules and regulations in attempt to win public contracts and grow into a successful large-scale contractor. They dedicate substantial efforts in tendering for government projects by visiting the potential worksites and meeting with local officials, but have yet to win a public contract. Thus, the contractor has been surviving on few contracts from a reliable private client. The

largest hurdle they see in winning government contracts is that the procurement process is highly unfavourable to small-scale contractors with the 2 percent bid bond and the USD 80 cost per set of tender documents. These barriers restrict their ability to tender on numerous projects at the same time. They believe foreign contractors use their financial advantages to win these contracts. High competition was also stated as a large hurdle to success as there are many contractors applying for the same work packages.

Lack of appropriate equipment is also a limiting factor in business success. They would like to own scaffolding, welding machines and compressors such that they could work on jobs more efficiently and profitably. One director expressed his frustration with not having appropriate equipment, ***"we quickly find that most of the profit is eaten up by equipment rental."***

The business was quite critical of NAMSSC saying that they were not members of the association because they did not feel that it was worth the cost of the membership fees. They gave an example that NCC provided a training course in how to prepare and complete bid documents, however, they felt that NAMSSC did not provide any courses to help small-scale contractors. They felt that if there were better controls over the association and that their mandate was more focused, that they would register for the association.

Staff Perspective

There appears to be an information asymmetry between management and staff with regard to awareness of social protection schemes. One staff member was not aware that the company subscribed to NAPSA or Workers' Compensation. Furthermore, this labourer also was not certain what would happen in the event of an accident or who would have the responsibility.

Staff identified that the largest issue associated with working for this organisation is that they have yet to work on big contracts. As one labourer mentioned***, "when we get big jobs it will be easy to do what the companies desires."***

Business Outlook

Despite the challenging conditions, the directors have resolve to push ahead and keep tendering for public contracts. They feel that if NAMSSC fight for small-scale contractors and public tendering space can be changed to accommodate small-scale contractors, they can start winning contracts, build some momentum and get on the trajectory toward becoming a large-scale contractor.

ANNEX 2: RESEARCH METHODOLOGY

The research for this study was conducted using a mixed methods approach comprised of desk research; field research, including in-depth interviews with key informants, value chain actors and relevant stakeholders; a case analysis; and a stakeholder consultation workshop to assess the issue with a special focus on finding solutions in the market system. Unless otherwise cited, sources for all data and information in this document are from the research undertaken by the lead consultants.

The research activities engaged in for this study are summarized below:

1. Desk research: Available secondary information was reviewed on the working conditions and enterprise performance in the building construction sector, including reports from studies carried out by other organizations/projects and documents relevant to the rules/regulations and supporting functions to the sector as well as relevant articles from the media. Furthermore, the desk research as performed to understand the distribution of employment within the building construction sector, particularly at different levels of value chain and based on the size of enterprises.

2. Field research: The field research consisted with over 40 interviews with value chain actors, support service providers, business associations and authorities involved in regulating the sectors (Business associations and authorities interviewed included NAMSSC, ABCEC, ZAWIC, ZNAS, NCC and ZDA, and six focus group discussions (FGDs) with value chain actors at different levels of the chain, including one FGD with employees of construction businesses. Furthermore, onsite observations were carried out at construction sites and building material production businesses. Regarding the geographical coverage; most of the interviews and FGDs were conducted in Lusaka, while several interviews were conducted in Ndola and Copperbelt, particularly with the timber suppliers. Interviews and FGDs were conducted using the research tools adapted to the requirement of the research objectives and to the construction sector, based on the guidelines given in the ILO's guide on "Value Chain Development for Decent Work".

3. Case Study Analysis: Six case studies were performed on businesses that participated in various activities in the building construction sector. For these studies, building contractor and materials supply businesses with varying degrees of operational performance and working conditions were interviewed. Details of each case study are included in Annex 2 of this report.

   For each case study, both management and labourers were interviewed from a list of general questions that were intended to start an informal dialogue with the interviewee. Both management and labourers were interviewed such that the perspectives of both could be ascertained and such that both sides could provide checks and balances to the responses from one another. For the management team, the questions were focused on the history of the business, the working conditions provided and the challenges and successes of the business. For the two to four employees that were interviewed for each case study, questions were focused on their history with the employer, the working conditions, trainings and challenges.

4. Practical analysis: Information gathered through the interviews with construction businesses and workers, actual case studies, key informant interviews and observations made during the field research was analysed in detail. This analysis was complemented by external data collected on economic indicators and the performance of the construction sector relative to other industries. The analysis focused on identifying incentives for market actors to invest in improving working conditions that would result in enhanced business performance.

5. Consultation workshop with relevant stakeholders: A consultation workshop was conducted to better understand the stakeholder positions and motivations with respect to social protection and in the context of the VCA such that better, more inclusive solutions could be made for developing the market systems in the construction sector. Unfortunately, it was not possible to conduct a similar workshop for OSH.

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