

**FACTORS CONTRIBUTING TO LOW REPRESENTATION OF WOMEN AT
KANSANSHI MINING PLC IN SOLWEZI – NORTH WESTERN PROVINCE OF
ZAMBIA**

By

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**A Dissertation Submitted to the University of Zambia in Partial Fulfillment of
the Requirements for the Degree of Master of Arts in Gender Studies**

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LUSAKA.

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DECLARATION

I **Bwalya, Rodrick** hereby declare that this Dissertation is:

- (a) My own, unaided work. It is being submitted for the Degree of Master of Arts in Gender Studies in the University of Zambia.
- (b) It has not been submitted before for any degree, diploma or examination in any other University for any academic award.
- (c) All published work or materials used herein have been acknowledged.

Signed _____

Date: _____

CERTIFICATE OF APPROVAL

The dissertation of Bwalya Rodrick has been approved as fulfilling the partial fulfillment of the requirements for the award of the Degree of Master of Arts in Gender Studies by the University of Zambia.

Examiners' Signature

Date

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DEDICATION

Dedicated to my mother, Elizabeth Kasongo Kalapa, an inveterate believer in education, and to my siblings.

ABSTRACT

Mining is one of the major industries in Zambia and second key employer after government. It is seen as the most likely means of improving standards of living, providing employment and economic changes that people associate with development and modernity (Lahiri-Dutt, 2006). Stated policies in the mining industry proclaim commitment to principles of equality of opportunity in the workforce (Macintyre, 2010). While equality of opportunity in the workforce underpins Kansanshi Mining Plc employment policy, counter differences in equality of opportunity between men and women prevail. The participation of women is low (6.3%) as compared to men (93.7%). Previous researches have not adequately investigated the problem from a gender perspective. Research findings have contributed to empirical scholarly body of knowledge on gender and mining and bridged the knowledge gap. Besides, it is hoped that the findings will be utilized by management to mainstream gender in mining operations, programs and policies so as to bring about gender equality. The objectives were to: (a) assess the extent of employees' participation in various occupations from a gender perspective; (b) ascertain availability and application of gender policies and programs; (c) assess staff recruitment, skills development and promotions procedures from a gender perspective; (d) explore perceptions and attitudes of management and employees towards equal participation in various mining jobs; and (e) examine workplace challenges of employees. Specific Questions were: (a) what was the extent of employees' participation in various occupations from a gender perspective? (b) What gender policies and programs were at the Mine and how are they applied? (c) Were staff recruitment, skills development and promotion procedures done from a gender perspective? (d) What were the perceptions and attitudes of Management and employees towards equal participation in various mining jobs? (e) What were the workplace challenges of employees? Both quantitative and qualitative methods were used. The study design is case study design. Study instruments included interview guides, self-administered questionnaires, observation checklists, digital voice recorder and record review of management documents. Sample size was 180. Study population included management staff and non-management staff. Purposive and Stratified sampling were used. Quantitative data was analyzed using SPSS and Chi square test was applied. Qualitative data was thematically analyzed. The study established that key factors which significantly contributed to low representation of women (6.3 per cent) compared to men (93.7 per cent) were: high criteria for recruitment (high education qualifications and experience required) of employees which excludes those without post secondary qualifications; lack of gender sensitive policies and programs in place; and perceptions by management that mining jobs are traditionally male-oriented. In view of the findings, the study recommended that management should mainstream gender in policies and all programming alongside a quota system when recruiting, training and promoting; and management training in gender issues to change the mindset in the company with regard to women viewing them as fellow workers and believing that women can indeed also do both physically demanding jobs and other jobs in administration. Women should start pursuing certifications in the trades the mining industry requires such as sciences and engineering programs. Future research and action should include stakeholders such as former mine employees, students and educators from learning institutions and mine trade unions on their perspectives regarding challenges limiting full participation of women.

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ACRONYMS AND ABBREVIATIONS

BPFA:	Beijing Platform for Action
CEDAW:	Convention on Elimination of all Forms of Discrimination against Women
CSO:	Central Statistical Office
CSR:	Corporate Social Responsibility
CSW:	Commission of the Status of Women
ECOSOC:	United Nations Economic and Social Council
EEO:	Equal Employment Opportunity
GRZ:	Government of the Republic of Zambia
GAD:	Gender and Development
GNP:	Gross National Product
HIV and AIDS:	Human Immune Virus Acquired Deficiency Syndrome
ICMM:	International Council on Mining and Metals
ILO:	International Labor Organization
LCMS:	Living Conditions Monitoring Survey
MDGs:	Millennium Development Goals
MoE:	Ministry of Education
NGP:	National Gender Policy
NUM:	National Union of Mineworkers
NRCM:	The Northern Rhodesia Chamber of Mines
PAGE:	Programme for the Advancement of Girls' Education
PLC:	Private Limited Company

SADCC:	Southern African Development Coordinating Committee
SPSS:	Software Package for Social Sciences
UN:	United Nations
UNESCO:	United Nations Education, Scientific and Cultural Organization
UNDP:	United Nations Development Programme
WAD:	Women and Development
WID:	Women in Development
WIM:	Women in Mining
ZCCM:	Zambia Consolidated Copper Mines

CONCEPTUAL AND OPERATIONAL DEFINITIONS

Gender

Refers to socially constructed roles and responsibilities of women and men, and includes expectations held about characteristics, and likely behaviors of both men and women; the roles that we learn to fill from childhood onward (Ranchod, 2001).

Sex

Refers to the genetic and physiological characteristics and traits that indicate whether one is male or female (Ranchod, 2001).

Gender Equity

Refers to fairness and justice in the distribution of responsibilities and benefits between men and women (that is to say equal number of women and men on an organization's Board of Directors). Gender Equity is a first step towards the goal of Gender Equality (Ranchod, 2001).

Gender Equality

Refers to the absence of discrimination on the basis of a person's sex in opportunities, the allocation of resources or benefits, or in access to services (that is to say equal participation and decision-making power by men and women on a Board of Directors) (Ranchod, 2001).

Gender Mainstreaming

Process as well as a strategy of assessing the implications for women and men of any planned action, including legislation, policies and programmes in all areas and at all levels so that women and men benefit equally and inequality is not perpetuated" (United Nations, 1997; UNDP, 2005).

Gender Analysis

Critical examination of issues affecting both women and men within a given situation or policy (CEDPA, 1999).

Gender Blind Policies

Policies that do not make distinction between sexes (GRZ, 2010). Assumptions incorporate biases in favour of existing gender relations and so tend to exclude women.

Gender Aware Policies

Policies that acknowledge that development actors are women as well as men that they are constrained in different and often in unequal ways, and that consequently they may have differing and sometimes conflicting needs, interests, and priorities (GRZ, 2010).

Gender Planning

Gender planning is the practical application of the skills that have been acquired through gender studies and gender training (CEDPA, 1999).

Gender Training

Teaching activity aimed at developing a common understanding of gender policies and concepts, as well as skills in targeting, beneficiary participation and monitoring of gender equality, for example workshops (CEDPA, 1999).

Gender Sensitivity

Understanding and considerations of socio-cultural factors underlying sex based discrimination (GRZ, 2010).

Gender Balance

Refers to the goal of having the same number of women and men staff in different levels of the organizational structure (GRZ, 2010).

Gender Disaggregated Data

Presentation of statistics by female/male classification (GRZ, 2010)

Gender Gap

Gap in any area between women and men in terms of their levels of participation, access to resources, rights, remunerations, benefits etc. (GRZ, 2010).

Gender Imbalances

Inequalities which exist between females and males and are now related to their sex roles (GRZ, 2010).

Gender Roles

Functional responsibilities which may be assigned by society and are influenced by cultural, political, religious or economic situation (GRZ, 2010).

Labour Force

The economically active populations who are either employed or unemployed but are available for work (LCMS, 2011).

Sex Roles

Roles which females and males perform on the basis of their reproductive physiological or biological makeup (GRZ, 2010).

Socialization

A process through which a person learns all things that he/she needs to know to function as a member of a specific society (Giddens, 2006).

Sustainable Development

A pattern of development that permits future generations to live at least as well as the current generation generally requiring at least a minimum environmental protection (Todaro and Stephen, 2012).

1.1.0. Introduction

Chapter one outlines the historical background of gender and mining in Zambia which is preceded by background overview. The chapter also incorporates the importance of gender equality issues in the mining sector from business, legislative and corporate social responsibility perspectives. The objective is to see how women have fared in so far as mining operations are concerned. As such this section situates growing evidence that integrating women into the workforce leads to an increase in productivity, efficiency, profitability and reliability for mining companies.

1.2.0. Gender Dynamics in Mining

The large inflows of investments associated with mining projects are often assumed to parallel a degree of economic and social development within mining-affected communities. However, the benefits accrued from mining projects, namely the creation of formal sector employment and access to higher incomes (Salim, 2003), are discriminately directed towards males. A report issued by the World Bank on gender equity and mining noted that the “evidence increasingly demonstrates that in general women are more vulnerable to the risks, with little access to the benefits” (Eftime et al., 2009a: 3). Further, Salim (2003) concludes that the failures of the mining industry to adequately address female perspectives, has led to increased inequality and undermined the rights, roles and responsibilities of women in their communities. It is estimated that worldwide, female employment in the mining sector rarely exceeds 10 per cent, while female unemployment rates in mining communities have been surveyed as high as 87 per cent (Eftime et al., 2009a: 9-10). Hence, the low female representation in the mining cycle, and therefore, their ensuing economic vulnerability, is a primary consequence of mining operations (Ibid).

Ward and Strongman (2011) document that consultation procedures fail to take proportionate gender samples, and instead, base findings of income levels and geographic

locales. This is representative of the significant data gap relating to gendered factors on participation of women. Salim (2003) asserts that no gender analysis is publicly available about employment or impacts of projects on women and children. The barriers to female participation in formal mining sector are therefore, largely a result of the uninformed assumptions that project benefits automatically extend to women. In reality, however, women are not only largely sidelined from direct formal employment in the mining sector, but where opportunities do exist; the male-biased working conditions are significantly impeding (Salim, 2003).

1.3.0. Gender and Mining in Zambia

The mining industry in Zambia has dominated the scene for more than seven decades since the first commercial mine was opened in Kabwe in 1928 (Burdette, 1984). Since then mining has been Zambia's economic lifeblood and a key employer. African mine labour was crucial when the development of the Copper-belt began in 1926. A tradition of migrant labour existed in several parts of the country (Berger, 1974). However, it was the men who got these jobs in the mines and were mostly inexperienced workers. For example, the *Annual Report upon Native Affairs (1929)* reports that in 1929, 4, 000 men were recruited on the Copper-belt mines.

Parpart (1986) reports that labour in Southern Africa focused on male waged workers rather than women. This is due to the importance of migrant labour, which highlights male worker exploitation while obscuring the role of women and children (Parpart, 1986). It was the policy of the Colonial Government to control women's migration to mining towns, though the mining companies' favored married African men to single miners (Ibid). This was purely in the light of worker's productivity. The Northern Rhodesia Chamber of Mines (NRCM) (1944) asserts that the married men were undoubtedly more contented than the single men, better fed, looked after and clothed with a sense of responsibility which tended to make the employee a more stable and efficient worker. Married men were therefore potentially better material for the training school in the mines than women (Perrings, 1979). In this regard, women as a category were 'stabilizers' of labour and not necessarily as mine workers.

To facilitate this, Parpart (1986) discusses that management adopted a number of strategies, ranging from positive inducements such as training women in home craft and child care, to placing checks on economic activities for women on the assumption that dependent wives (whether legal or common-law) would be more apt to provide reproductive services and reliable family oriented workers. It is against this historical backdrop that in 1944, the Northern Rhodesia Chamber of Mines officially adopted the employment of married African workers as a policy (Op. cit). By 1946, all compound managers were of the opinion that the employment of married African workers was in the interest of the mining companies (ZCCM, 1944). Further, Dandule (2012) mentions that sex transaction by single women and illegal beer brewing were the jobs engaged in to earn money in the mine compounds instead. However, to counteract these activities, Charles (1967), profiles that the Colonial authorities reacted, although often unsuccessfully, by cracking down on prostitution on grounds that African women in towns should be dependents, not potentially troublesome independent women.

Admittedly, Hansen (1986), posits that during the colonial period, African women were excluded from wage employment in the mining industry because African women's gender role during the colonial period was manufactured in such a way that they were depicted as sexually loose and tempting to male employees. Besides loose morals, Zambian women's work opportunities during the colonial period were discriminatory and compounded by combined influence of factors, such as regional background, ethnicity, class, education, race and gender (Hansen, 1987). Women's access to employment continued to be restricted and limited and Himunyanga (1991), opines that a lot needed to be done to change the sexist attitudes of society (men in particular). Munachonga (1989) equally confirms that employers' attitudes and practices were discriminatory against women.

With the increase in production, employment has also grown phenomenally. Currently, the labour force is 74, 000 in the mining sector in Zambia (<http://www.timesnews.zm>. July 19, 2013). However, women account for 7.5 per cent compared with men at 92.5 percent (Gender Statistics Report, 2010). The mining sector in Zambia has been highly a male-dominated patriarchal industry. The integration and participation of women has

been slow. There is not much recorded involvement of women's participation in the formal mining industry. The mining industry could therefore, be referred to as the last bastion of exclusive male employment with women's participation in the industry limited to lower positions in administration, secretarial, cleaning and clerical (Mining Statistical Survey Data, 2005). The historical gendered roles played by men and women have remained by and large quite traditional. While men have entered the mine workplaces, women have remained in the domestic spheres. Men have been bread winners, while women have been responsible for maintaining the family. Moving from such traditional and relatively static gender roles, into a space where women and men can be seen as people of equal worth and dignity, equal workers and earners, is a big step away from the conception of male breadwinner and female household maintainer (Kuntala, 2009).

1.4.0. Gender Issues in the Mining Sector

The World Bank Report (2006) documents that the benefits and risks of extractive industries are often measured broadly at the community level, but fail to distinguish the impact on men and women. Evidence suggests that a gender bias exists in the distribution of risks and benefits in mining projects. The risks fall more heavily on women, while men tend to accrue more of the benefits (World Bank Report, 2006). The development effectiveness and sustainability of mining projects could increase significantly by taking into account how gender bias issues affect the mining sector and how mining activities can benefit men and women more equally. There are several common gender bias issues in mining projects:

- *Poor distribution of mining benefits:* Benefits from mining projects are mostly captured by men in the form of employment, income and compensation.
- *Social and family disruption:* Risks from mining projects, such as domestic violence, alcoholism, HIV/AIDS, increased prostitution, loss of agricultural land and environmental damage including water losses and pollution fall most heavily on women.

- *Limited voice in decision-making:* Women tend to have limited voice in decision-making at the household and community levels, and limited control over productive resources.

Women are under-represented in most occupations and roles in mining (WIM, 2007; 2009). The research is compelling. Organizations with a critical mass of women on their boards of directors, in leadership positions, and in the workforce, have better financial performance and governance (Georges et al., 2007; Lois et al., 2007) The lack of gender diversity found in mining could negatively impact the sector's productivity and performance. Tackling gender diversity provides the mining sector with an opportunity to show leadership on a pressing social and economic issue (WIM, 2007). Increasing the representation of women across all occupational areas and levels will improve business performance and ensure that the mineral sector has the flexibility, adaptability, and focus to meet the needs of tomorrow in a highly-competitive global industry (IFC, 2009). Some of the common drivers are:

Legislative: The international community including the government of the country of operation mandates a certain percentage of women participation in the company. For example, the Department of Mining in South Africa requires all mining companies have at least 10 percent representation of women in their operations.

Corporate Social Responsibility (CSR): Employing women can lead to communities becoming more prosperous and help break cycles of poverty by contributing more towards household welfare and increasing the level of skills in the community. Further, *household wellness survey* proves that hiring women has a greater welfare impact on the household than hiring men (World Bank, 2009). Women have been shown to spend household income differently from men. When women control household income, indicators including, child health and wellness have been shown to increase more than when men have control of this income (Ibid).

Business case: There is growing evidence that integrating women into the workforce leads to an increase in productivity, efficiency, profitability and reliability for mining companies. For example, studies undertaken by the (IFC, 2009) have shown that women

take better care of equipment, hence increasing the life span of the equipment and saving costs for companies. *Equipment safety study* by (Georges et al., 2007; Lois et al., 2007) show that women have a better safety record than men and that equipment used by women faces less wear and tear, which saves the company money and reduces downtime. The motivation for this study comes from studies done with male and female truck drivers and equipment operators in Australia and truck drivers in the U.S. In both of these instances, women were shown to cause less wear and tear on equipment (World Bank, 2009).

1.5.0. Women's Role in Mining

The mining industry in the SADC region contributes approximately 60 per cent of foreign exchange earnings and comprises at least 10 per cent of each member state's gross domestic product (GDP). Moyo (2010) acknowledges that although underrepresented in the industry, women in mining not only contribute to the available working force that directly feeds the economy, they also drive changing the culture of mining. In particular, they challenge the gender stereotypes that portray mining as being suitable for men only and as a result it is an unusual occurrence to see women in operational roles ranging from miners and tractor operators to plant managers. Therefore, their presence contributes to the promotion of gender equity in the industry. However, despite the value of women in mining, they are still marginalized in the industry, (Ranchod, 2012)

1.6.0. Significance of the Study

The study was significant in that it attempted to investigate the factors contributing to low representation of women at Kansanshi mining plc with a view to understand why mining investments at Kansanshi have inherent gender gaps and inequalities in gender representation in their rank and file. It is anticipated that the study would not only contribute to empirical scholarly knowledge on gender and mining industry, but also contribute to gender development policy scholarship. Further, it is anticipated that employers may utilize the findings to mainstream and monitor gender in mining operations, programs and policies as this may contribute to gender-equitable and homogeneous mining community. Hence, gender inequalities at Kansanshi mining plc could be addressed through gender inclusiveness policies.

1.7.0. Statement of the Problem

Around the world, research has shown that the introduction of large-scale mining adversely affects women in areas of operation to a greater extent than men (Tauli-Corpuz, 1997; Bhanumathi, 2003; Bose, 2004). A major factor that has contributed to adverse impacts experienced by women is that they have largely been marginalized and excluded from accessing benefits in mineral development, including employment (Connell and Howitt, 1991; Gibson and Kemp, 2008). The International community advocates for gender mainstreaming to improve the rights of women and bring the need for gender equality to the forefront of the development agenda in mining (World Bank 2006). There is a substantial body of empirical evidence to demonstrate that the “social and economic disempowerment of women due to unequal outcomes of mining benefits contributes to economic stagnation, poverty, ineffective governance and little sustainable development in local communities” (World Bank 2001: 1). There is a growing body of literature on the participation of women working in small-scale and artisanal mining in developing countries (Lahiri-Dutt and Macintyre 2006), but very few sources detail drivers hampering the participation of women in large-scale mines. Similarly, to date, there has been very limited published and unpublished information on factors contributing to low participation of women in the Zambian mining industry. The representation of women in

formal wage employment at Kansanshi Mining Plc has not improved significantly since 2006 when large-scale operations started. The total formal workforce in 2006 was 502. Women accounted for 32 (6.4 per cent) compared to 470 (93.6 per cent) male representation. In 2014, the total workforce at the time of the study was 2560. Of this total workforce, women representation was 160 (6.3 per cent) compared with 2400 (93.7 per cent) male representation (Statistical Survey Data, 2014). Similarly, the representation of women in management showed that at senior management level, females accounted for 2 (13.3 per cent) compared to 13 (86.6 per cent) male representation. At middle management females and males accounted for 22 (26.2 per cent) and 62 (73.8 per cent), respectively. At lower management the total population was 140 with females comprising 19 (13.6 per cent) compared to 121 (86.4 per cent) males.

Research on gender and mining is well documented and studies by Kuntala (2010); Ranchod (2001) have all demonstrated that the representation of women in the mining sector is low. However, it is not clear what sort of factors contribute to low participation of women in large scale mining. This study therefore, sought to examine the factors that contribute to low representation of women at Kansanshi mine. This is despite the mining firm being an 'equal opportunity employer,' and stated policies proclaim commitment to principles of equality of opportunity in the workforce; equal pay for equal work and provision of training and support for the pursuit of further education or qualifications for employees.

The above picture reveals two things: women's employment trends reveals that gender inequality is particularly concentrated at the mine, and the continued existence of gender stereotypes that cast men as breadwinners and workers, and women as homemakers. Stoetzler and Yuval-Davis (2002) posit that such scenarios perpetuate the idea that mining is suitable only for men and ignore the fact that the few women in mining field are breadwinners in their households. Although there has been a steady increase in women representation since 2006 when Kansanshi Mining Plc began its large scale mining operations, the increase is not significant as compared to men. Women are thus disadvantaged in wage employment and continue to be under-represented. The under-

representation of women in the sector reflects broader social inequalities and an obstacle to achieving gender equality and equity.

Additionally, the above scenario confirms the assertion by Eftime et al., (2009) that worldwide, female employment in the mining industry rarely exceeds 10 per cent, while female unemployment rates in mining communities have been surveyed as high as 87 per cent (Ibid). As a result, the benefits accrued from mining projects, among others, the creation of formal sector employment, are discriminately directed towards males (Op. cit). A report issued by the World Bank (2009) on gender equity and mining posits that in general women are more vulnerable to the risks, with little access to the benefits (Eftime et al., 2009a: 3). Further, in the review of the mining industry, Salim (2003) notes that the failures of the industry to adequately address female perspectives, has led to “increased inequality and undermined the rights, roles and responsibilities of women in their communities” (Salim, 2003: 42).

1.8.0. Justification

Factors contributing to low representation of women in the Zambian mining sector have not been adequately investigated from a gender perspective. Much research has focused on ways that women, through their reproductive labour, supported the industry; and, in their militancy, helped male miners through strikes and other labour actions. For example, studies on “*The Role of Women in the Mineworker’s Struggles on the Copperbelt of Zambia*” and “*Mining and Society, Gender and Mining: Workplace*” were undertaken by Dandule at the University of Zambia in 2012 and by Sarita Ranchod in South Africa under the African Institute of Corporate Citizenship in 2001, respectively. The study by Dandule only demonstrates the role of women in mineworker’s struggles for better working and living conditions for African families in the mine compounds. While the study by Sarita Ranchod underlines the fact that mining has been historically exclusive male domain industry. Therefore, this study was worth undertaking as it is a ground breaking study in Zambia to contribute to scholarly literature on gender and mining. The study examined factors contributing to low representation of women at all levels from a gender perspective. Further, the study endeavored to bridge the knowledge gap on knowledge of management about gender related issues. The study proposed

recommendations to redress the gender imbalances and gender inequalities in the company's rank and file. Promoting gender equality and equity in recruitment, skills development and promotion of employees especially women at all levels and ensuring greater involvement of women, Kansanshi Mining Plc could be a beacon of gender equality. As such, examining the drivers of low representation of women was worth investigating.

1.9.0. Research Objectives

The main objective of this study was to examine factors contributing to low representation of women at Kansanshi Mining Plc. The specific objectives were to:

- Assess the extent of employees' participation in various occupations from a gender perspective.
- Ascertain availability and application of gender policies and programs.
- Assess staff recruitment, skills development and promotions procedures from a gender perspective.
- Explore perceptions and attitudes of management and employees towards equal participation in various mining jobs.
- Examine workplace challenges impeding advancement of employees.
- Propose recommendations to increase women's participation at all levels of employment.

1.10. Research Questions

The main question this conducted study attempted to answer is "What are the factors contributing to low representation of women at Kansanshi Mining Plc?" The specific questions asked were:

- What is the extent of employees' participation in various occupations from a gender perspective?
- What gender policies and programs are at the Mine and how are they applied?

- Is staff recruitment, skills development and promotion procedures done from a gender perspective?
- What are the perceptions and attitudes of Management and employees towards equal participation in various mining jobs?
- What are the workplaces challenges impeding advancement of employees?
- What are the proposed recommendations to increase participation of women at all levels of employment?

2.0. CHAPTER TWO: LITERATURE REVIEW

This chapter presents a review of literature on gender and mining with reference to participation of women in the mining sector across the globe. The study has reviewed documented literature on ‘gender and mining’ from Latin America, United States of America, Britain, Indonesia, India, China, Australia, South Africa and Zambia.

2.1.0. Masculinity and Mining

Mining has often been upheld as the most ‘masculine’ occupation, and as one that traditionally and structurally prevents women from entering it (Kuntala, 2011). Keck and Powell (2006) have demonstrated that the restrictions are historical and social in nature, constructed to limit women’s employment and encourage their reproductive labour at particular points in time. Yet these have been enforced as if ‘natural’. Chaput (1996) documents however, that ‘Canada and United States of America, two decades—the 1940s and 1970s—offer exceptions in women’s employment in mining and, therefore, some insights into how women and their advocates might dislodge gender barriers. The Second World War presented a labour shortage that forced governments, companies and unions to recruit women to fill critical mining positions (Anderson, 1981). Later, North American feminist movements compelled governments to open up former male bastions such as mining through Equal Employment Opportunity (EEO) legislation (Ibid).

Gier and Mercier (2006) indicate that the mining enterprises became so singularly male-centric at some point in history. It is found that gender exclusions emerged at particular historical moments and were hardly uniform across the world. For example, women in pre-colonial Africa mined below and even above the ground, while in the pre-colonial Andes it was considered ‘bad luck’ for a woman to work underground though they were central to mining work (Francaviglia, 1998). Global historical forces of colonialism or capitalism often altered customary gender roles in mining, limiting women’s traditional rights over mineral wealth (Ibid). Gier and Mercier (2006) report that, attitudes towards women and mining were uneven in industrial societies. For example, the British parliament officially prohibited women from underground work as early as 1842,

although women miners continued to work in some regional pits in the early twentieth century. Elsewhere in the British Empire, Indian women laboured in British-owned mines for a fraction of the wages paid to their male counterparts. And even in societies such as Japan, where gender roles were rigidly enforced, surprisingly, women continued to mine underground until the mid-twentieth century (Kuntala, 2011).

Yao (2006) provides a fascinating glimpse of how the numbers of Chinese women in mining rose and fell with changing political and economic tides. Communist emphasis on equal rights ended Confucian gender restrictions, but after economic reforms, women in China have seen their share of mining employment decline since the 1990s. In the 1950s and 1960s women miners were glorified as 'Iron Girls', but in reality they still represented a minority of workers underground. Some high profile accidents in the 1980s led to the 1992 regulation called the 'Provision for the Protection of Working Women', which prohibited the employment of women in the mine (Yao, 2006). With a new emphasis on markets, women workers were seen as more expensive with their maternity leave provisions, and less reliable than men. As a result of these restrictions, Chinese women have moved figuratively, working illegally in mining activities and losing prior benefits.

This is but one example that clearly illustrates the vacillation of employers and the state in either embracing or rejecting women miners, almost always tied to structural conditions. Companies or nations saw their own interests tied with patriarchal male miners and reinforced gendered practices, although they alternately viewed women as assets or liabilities in an effort to control labour. Companies often encouraged marriage and constructed family housing in order to sustain a more docile workforce; at other times, they tried to limit the number of women in a mining camp. Although men came to mostly dominate mining, women's reproductive and domestic work was essential to the industry. As a US Women's Bureau study concluded in the 1920s, miners' wives were of 'peculiar industrial and economic importance' to keep miners in the region (Lahiri-Dutt and Macintyre, 2006: 6). Women created economic niches through direct relationships to mining in surface operations that admitted them—along with entry in brothels, taverns

and cafes, households and other businesses that maintained male miners (Macintyre, 2010).

2.2.0. Myths in Mining

In Latin America, as in Africa and Asia, Finn (1994) asserts that archetypal myths of earth goddesses and women's special relationship to the underground world became the basis for the superstitions about women in the mines that are held by many male miners even to the present day. For example, in Peru, miners believe that for each woman who goes down a mine, a man will come up dead. In another legend, a mine stops producing when women enter it (Finn, 1994; Boxer, 1987). Further, Chilean miners consider the mine 'a feminized object on which they exercise their will' and also as a 'punishing woman' who haunts the tunnels and could cause accidents if another woman enters the mine (John, 1984). In the Bolivian mining centre, Mercier and Gier (2007) explain that miners eroticize their mining mountain, which, like a jealous lover, would not tolerate other women in the mines. In Brazil, it is unlucky for feminine skirts, even worn by priests, to appear underground (Ibid).

Attitudes to women in mining can be best understood if the views of some women are quoted who are directly related to the mining sector (Ranchod, 1997: 8). Rita Mittal of the Association of the Zambian Women Miners, formed in 1996 says "women face a lot of rejection and are not taken seriously by people in the field. There are a lot of traditional obstacles along the way. Chiefs feel undermined when they see women coming to mine in their areas. They are hostile." "In certain instances, cultural norms say that women are not supposed to go into the mines (Ranchod, 2001). There are some myths that if a woman goes underground, the stones (minerals) will disappear", (Kaingu, 1999) a miner in Zambia opines. She further adds that the Department of Mines of the Government employs only men. Geologists, Engineers are men, Metallurgists are men, Surveyors are men and the people in charge of explosives are all men, so these are the imbalances that need to change. Women can actually do all the other works that men are doing (Kaingu, 1999).

Culture asserts that inequalities between women and men in opportunities in the mining sector, as indicated by Ranchod (1997) are as a result of not acknowledging the capabilities of women and not taking them seriously by society. There are a lot of traditional obstacles as Traditional leaders and Chiefs feel undermined when they see women working in the mines (Ibid). In certain instances, cultural norms dictate that women are not supposed to go into the mines (Nayak and Mishra, 2005). There are some myths that if a woman goes underground, the stones (minerals) will disappear or that the presence of women in the mine pits lead to collapse of mines and death of miners (Ranchod, 1997; Nayak and Mishra, 2005).

Another belief among female and male miners alike is that certain areas of the mine are dominated by evil spirits (Nayak and Mishra, 2005). Hence women fear to enter the mines to work and as a result they are not employed (Ibid). Probably because of these cultural beliefs women are not considered fit and are rarely employed in the organized mining sector, whether public or private. Additionally, mining has traditionally been a male-dominated sector (Ranchod, 2001). Not only does a mindset exist that mining is not a place for women, but women in mining environments are also at risk of experiencing sexual abuse (WIM, 2009).

Besides, culture has further been referred to as influencing the participation of women in mine action activities (www.scbl-gender.ch.05/15/13). Mercier and Gier (2007) explain that societies and employers normalize women's low representation in mines through an elaborate set of superstitions, beliefs, traditions, sexual metaphors and seemingly 'rational' justifications, which are enforced through legislation or cultural taboos. The domestic ideology, generated during eighteenth-century debates on women's nature, was adapted to the particular circumstances of the Industrial Revolution and provided both a reasoned and moral justification for keeping women out of the mines and be at home (Mercier and Gier, 2007). Further, Kuntala (2010) also cites cultural practices whereby because women who are menstruating are conventionally treated as 'impure', they tend to stay at home during their periods thereby they stop being productive at work.

2.3.0. Gender Stereotypes and Mining

Boers (2002) adds that negative attitudes to women in mining are another important constraint to women's effective integration in the industry. There is a great deal of male skepticism that needs to be tackled. For example, a classic example of gender stereotyping in mining which ultimately constrains women's career prospects is the use of arguments such as, 'women are safer (in their operational behaviour)', 'women take fewer risks (in driving the trucks)', 'women care for machines (like their children)' or 'women are more docile workers (and do not form unions)'. A critical reflection on such statements would be enough to show that they threaten to mobilize gender for all the wrong reasons in mining—that women should only be hired because they are more compliant or cost the company less. These unverified statements can easily lead into the trap of biological essentialism that views all women as mothers and carers, and reinforces predetermined notions about who they are and what they should be like (Boers, 2002).

Similarly, there are documented reports that negative attitudes to women in the field are rooted in biological essentialism (Boers, 2002). Women employees are seen as a cost because of their sex role responsibility to bear, care and go on paid maternity leave and child care responsibility. There is therefore, preference of males to females by employers on the premise that the former is constantly at the work place (Ibid). Apart from attitudes, Zungu (2011) acknowledges that women in mining face greater risks to their health and safety than men, simply because they use machinery, tools and equipment that have been designed for use by men. Furthermore, given that the physical demands of mining are matched to the physical abilities of men, women face increased risks to injury and ill-health in the workplace (Hermanus, 2007). Therefore, the technology used in the mining could attribute to low representation of women. Another factor is a mixture of gender ideologies compounded by the interaction of factors in the workplace and at home. Macintyre and Lahiri-Dutt (2006) note that women face problems ranging from open antagonism; sexual harassment; discrimination in terms of opportunities for promotion, remuneration to in-service training. While at home, married women regularly face the jealousy of husbands if they have to work shifts with men and husbands will try to

prevent them from engaging in any training that requires them to travel (Macintyre, 2006).

Further, Hansen (1986) and Himunyanga (1991) posit that during the colonial period, African women were not represented in wage employment due to sexist attitudes by men in particular. This is because African women's gender roles during the colonial period was manufactured in such a way that they were depicted as oversexed (sexually loose) and tempting to male employees (Ibid). Besides, Zambian women's work opportunities during the colonial period were discriminatory due to combined influence of factors, such as regional background, ethnicity, class, education, race and gender (Hansen, 1987). As such women's access to employment continued to be restricted and limited.

2.4.0. Mining Environment

The inherent masculinity, and 'male culture' present within the mining industry is a principle obstacle for the successful implementation of a female workforce. The World Bank report (2009) on gender equity identifies several common conditions that elucidate inhibiting working conditions for female labourers. Firstly, there usually exists a wage discrepancy between men and women for work of the same value. Secondly, there are few provisions for maternity leave, and women are at risk of losing their jobs if they become pregnant. Besides, there are many recorded (and countless undocumented) cases of sexual harassment within the mines that accompany little to no regulation, or formal complaint procedures; and then physical environments that cater to women's needs, such as separate bathrooms and uniforms appropriate for female bodies, are often non-existent (Eftime et al., 2009a: 13-14).

Due to the fact that the involvement of women in mining is a new phenomenon, (Benya, 2009) asserts that women face a number of challenges. For example, the 2005 AngloGold Annual Report indicates that women do not have access to ablution facilities underground. Furthermore, the protective gear that all miners are required to wear when they work underground includes a one-piece, jumpsuit overall, which is not female friendly because a woman needs to remove the entire suit in order to use the toilet (Ranchod, 2012). Benya (2009) adds that other challenges facing women in mining

include the high temperatures underground. While all miners are exposed to this heat, women are at a disadvantage at least once a month, where during their menstruation, their body temperature is already higher than normal (WIM, 2009). Exposure to the heat in the mines during menstruation increases the discomfort of female miners (Ibid). Furthermore, men can choose to work bare-chested, but women do not have the same privilege. Therefore, while all miners may find discomfort in the heat, women's physical makeup adds to their disadvantage (Benya, 2009).

Moyo (2010) reports that the challenge of inadequate and inappropriate housing for workers is another point in case, which means that women cannot live with their families closer to work. Males can stay in hostels provided separately from their families, but most women miners are still responsible for childcare and household duties at home. Women find themselves commuting from their homes to the mines every day. Further, Benya (2009); Moyo (2010) also assert that transportation as a challenge, as the mines do not make provision for workers who commute to work, from home. Consequently, women are reported having to wake up as early as 2 am in order to get ready and find transport to take them to work. As mines work on a shift system, therefore, failure to make it to work on time means one has to finish late and, get home late. Overall, women miners work longer hours than men, because they are still responsible, after formal working hours, for the bulk of domestic responsibilities (Ranchod, 2012).

Mines, Minerals, and People (MMP) note too, that the lack of child care services often require mothers to either leave children unattended, or bring them on-site, consequently risking their exposure to dust and toxins (MMP, 2003). Furthermore, women are likely to be disproportionately subject to retrenchment (Eftime et al., 2009a); this is often the case when mechanization of mining operations follows the privatization of a project, and employment opportunities are reduced (MMP, 2003). It is evident therefore, that the intrinsic male orientation of the mining industry tends to exclude women from accessing opportunities of employment, and consequently, increases women's risk of economic and social marginalization (Eftime et al., 2009a).

2.5.0. Education Skills in Mining

Studies that have been undertaken by Bardouille (1992); Ranchod (1997; 2001); Nayak and Mishra (2005) have also argued that the basis of inequality between men's superior representation and women's low representation in work opportunities in mining is partly because of cultural perceptions/myths, lack of education and marketable skills prerequisites and partly that employer's perceptions, attitudes and practices are discriminatory against women (Bardouille, 1992). In addition, lack of knowledge about gender policies and willingness by employers to implement various international, regional and national agreements, initiatives and policies for gender mainstreaming as a reason to that effect (Gender and Mine Action report, 2008).

Further, education skills shadow women to participate in the mining activities. Mafalda and Barbara (2009) document that 27 per cent of the world population represents total women workforce working in global mining companies. The figure is disaggregated as follows: 19 per cent women employed as professionals in the natural sciences, engineering and math; 1 per cent women as industrial engineers; 2 per cent of heavy equipment operations and 5 per cent of supervisors and skill trade workers (Mafalda and Barbara, 2009). Thus, the global situation of women in mining can be partly as a result of small number of women pursuing education in skill trades and technician jobs as well as few female role models as source of inspiration for other women (Mining for Diversity Report, 2008). A career begins with educational choices made by women at post-secondary educational or training institutions (WIM, 2010). In fact few women are choosing to enter mining related programs of study and fewer still are entering or pursuing careers in the sector (Ramp-Up Report, 2010). To increase female representation in the sector, the reasons for lack of representation must be identified and resolved (World Bank, 2009).

In Zambia, Bardouille (1992) asserts that inequality between women and men in work opportunities due to lack of educational and marketable skills pre-requisites and is an attribute of socio-historical and social-cultural background. Munachonga (1987) states that the status of Zambian women in education and training opportunities in the colonial

and post-independence period is attributed to three main factors: Firstly, the parental negative attitude towards the education of female children. This is reflected in sex-role stereotyping by which males are expected to be breadwinners while females as dependent on or supported by males in adult life. Secondly the female education system which tended to confine women's sphere of education to domestic and household level, thereby discourage them to take courses leading to technical and industrial skills which are often in demand. Thirdly, public attitudes continued to emphasize a woman's traditional role of housewife even when is active in public life. Such attitudes tended to shape women's perceptions of themselves as mere homemakers and discourage them from pursuing education and training when they have the opportunity to do so (Munachonga, 1987).

The education system structurally undereducated women and privileged the men, and Bardouille (1992) indicates that there were class and gender divisions evident in who works in professional and skilled positions in the mining sector. Morrow (1986) asserts that the educational opportunities for Zambians during the colonial period, particularly before World War II was limited, they were even more limited for girls than boys. The role of education during this period was to prepare and train girls to be good mothers and wives rather than providing them with academic training (Ibid). Thus education for girls mainly included domestic science, cooking, child care and hygiene among others (Op. cit). This type of education served the aims of parents to prepare girls to assume the proper role of a woman in marriage (Morrow, 1986). Boys, on the other hand, received education to prepare them to assume low and lower middle level occupations such as mine jobs, clerical and teaching among others (Morrow, 1986).

2.6.0. Women Participation in Large-Scale Mining (LSM)

In Australia, according to the women in mining - Survey Report (2009) women account for only 18 per cent of the mining workforce, compared with 42 percent of the total Australian workforce. The numbers of women in operational roles is particularly low, with women comprising only 7 percent of the technical professional workforce and 3 percent of the site based workforce (Ibid).

For Indonesia, mining is an important revenue source and has a potentially major role to play in eradicating poverty and fostering development in the remote and inaccessible islands. Despite this, the proportion of women in the mining industry is small. Women comprise fewer than 5 per cent of all mining employees, though they make up 31 per cent of the Indonesian workforce as a whole, (Kuntala, 2006). While in India, despite the pro-women government policy, discriminatory laws forbidding women to work underground have been repealed, the mining industry in India has been highly a male-dominated patriarchal industry. As compared to other industries, integration and participation of women has been very slow in mining. While women have never been forbidden from working above ground, the number of women employed under and above ground has traditionally been low. Women mining laborers in the age-group of 15-19 years is only 27 percent of the total women laborers in mining, (Nayaki and Mishra, 2005).

Another study undertaken by Fernades and Raj (1992), showed that when NALCO, a large public sector mining company was established in Orissa, 80 percent of the displaced families were given jobs of which there were only 8 women beneficiaries. The *Statistical Profile of Women and Labour* of the Ministry of Labour Report (1998) shows that employment of women in open cast mines and above ground works steadily declined from 6.3 percent during 1981 to 4.05 percent in 1992. Similarly, in all the mines put together, the share of women workers was 9.8 percent in 1981 and has slid down to 6.65 percent in 1992. In addition, it also states that the women's participation in the Mines and Quarries has gone down during the period between 1980 and 1989. Under the Mining and Quarrying sector, the percentage of female workers to the total female population has consistently declined from 1.02 percent in 1901 to 0.05 percent by 2001, (ibid).

The Southern Africa Development Community (SADC) Heads of Government Declaration on Gender (1997) posits that the integration and mainstreaming of gender issues into the SADC Programme of Action and Community Building Initiative is key to the sustainable development of the SADC region. With an exclusion of Swaziland, all member countries of the SADC region have ratified and signed the United Nations Convention on the Elimination of all Forms of Discrimination against Women (1979). It means therefore that all governments of the SADC region have committed themselves to

ensuring that women have equal rights with men in all spheres in both policy and practice. This illustrates that increasing women's access to economic opportunities and reducing women's vulnerability to poverty are critical concerns throughout the SADC region. The situation at the regional large-scale mining has been described as the last bastion of male-dominated sector, (Ranchod, 2001).

In South Africa, the constitution precludes discrimination based on gender and the Mine Health and Safety Act of 1996 confirms this reality by lifting restrictions on women working on mines, including underground (Ranchod, 2001). The Employment Equity Act aims also at implementing positive measures to redress the disadvantages in employment experienced by black people, women and people with disabilities during the apartheid era, in order to ensure their equitable representation in all occupational categories and levels in the workforce and requires an employment equity plan (S17) and monitoring thereof (S21). The Employment Equity Act requires employers to ensure their workforce is reflective of the community in which they operate. Boers (2000) shows further that the legislation on women and mining is more progressive as it has challenged ILO's Convention 45 which prohibits females to be employed underground on any mine. This is exemplified by the Anglo Gold mining company who in 2000 employed 17 women as geologists, senior geologists, mineral resource evaluators and management trainees, with the majority of them being Anglo Gold bursars. The company has employed women geologists since the 1970's, moving them into the field in the 1980's and underground in the 1990's, (Mining Weekly, 2000).

The policy commitment on the part of government and the realization of gender imbalances existing in the mining companies was a precursor to ensuring gender equity in the mining sector. This was against the backdrop of resistance to having women work in the mining production environment due to the maintenance of the prejudices against women by the working class people who adhered to the traditional belief that a woman's place is in the home (Ibid). Another factor is that mining is a job-shedding sector with very few new job opportunities. This therefore, impacts on how rapidly the gender demographics of the company can change both in the short term and long-term, (Women in Mining, 1999).

The South African mining companies started to employ women in the mines in order to address the previous imbalances and to afford them opportunities to enter all jobs where they are academically qualified and declared physically fit as per occupational health practitioner's pre-employment medical assessment (Ranchod, 2001). In spite of all these good enabling policy documents by the South African government, translating these commitments into practice has been rather slow. National Union of Mineworkers (NUM) Gender policy (2010) indicates that women make up only 2.3 per cent of the workforce in the South African mining industry.

2.7.0.

THEORETICAL FRAMEWORKS

Chapter 2 situates two theoretical frameworks namely ‘Liberal Feminism thought and Gender and Development (GAD) Model’ in the context of gender equality. The theories locate the roots of inequalities and offer the frameworks in which to redress gender imbalances either in the public domain or private sphere.

2.8.0. Liberal Feminism Thought

The research study is informed and motivated by Liberal Feminism thought - political thought that states that all people are created equal and should not be denied equality of opportunity because of gender (Melanie et al, 2008). Liberal Feminism is an individualistic form of feminism theory, which primarily focuses on women’s ability to show and maintain their equality through their own actions and choices. Sheila (1992) posits that Liberal Feminists focus their efforts on social change through the construction of legislation and regulation of employment practices. Liberals agree that the single most important goal of women’s liberation is sexual equality, or, as it is sometimes termed, gender justice. Liberal feminists wish to free women from oppressive gender roles—that is, from those roles used as excuses or justifications for giving women a lesser place, or no place at all, in the academy, the forum, and the marketplace (Rosemarie, 2009). These feminists stress that patriarchal society conflates *sex* and *gender*, (Ethel, 1980), deeming appropriate for women only those jobs associated with the traditional feminine personality. Thus, in the United States and other countries, for example, women are pushed into jobs like nursing, teaching, and childcare, while they are steered away from jobs in business, science, technology, engineering, and mathematics (Rosemarie, 2009). In addition, legislation specifically barring women from such “masculine” jobs as mining and firefighting or preventing women from working the night shift or overtime is not exactly a distant memory. To be sure, de jure gender discrimination in the workplace is relatively rare nowadays. But de facto gender discrimination in the workplace remains all too prevalent. Gilligan (1982) asserts that employers faced with a choice between male or female candidates for certain jobs, many employers still prefer to hire men for

particularly demanding positions on the grounds that women are more likely than men to let their family responsibilities interfere with their job commitment and performance.

2.9.0. Gender and Development (GAD) Model

The GAD, or gender-and-development, approach emerged in the 1980s as an alternative to the earlier Women in Development (WID) focus (Jane, 1982). The GAD approach – which forms the basis of the Beijing Platform of Action (1995) – seeks to integrate gender awareness into mainstream development efforts such that they address problems of gender inequality at the same time as they seek to achieve their other objectives. The GAD approach seeks to address inequalities by focusing less on providing equal treatment for men and women and more on taking whatever steps are necessary to ensure equal outcomes (since equal representation and treatment does not always result in equal outcomes). It recognizes that improving the status of women cannot be understood as a separate, isolated issue and can only be achieved by taking into account the status of both genders (Kemp et al., 2010).

It finds its theoretical roots in socialist feminism and has bridged the gap left by the modernization theorists by linking the relations of production to the relations of reproduction and taking into account all aspects of women's lives (Jane, 1982). Socialist feminists have identified the social construction of production and reproduction as the basis of women's oppression and have focused attention on the social relations of gender, questioning the validity of roles that have been ascribed to both women and men in different societies (Ibid). Although they have not trivialized the importance of greater female participation in all aspects of social, political, and economic life, their primary focus has been on an examination of why women systematically have been assigned to inferior and/or secondary roles (Eva, 1990). Socialist feminists have combined an analysis of the impact of patriarchy with some aspects of a more traditional Marxist approach in attempting to address this concern.

McWilwaine and Datta (2003) opine that a gender and development (GAD) discourse offers a more radical agenda that can address the bases of inequalities between women and men, and redistribute the power inherent in gender relations. Indeed, in integrating

gender concerns at Kansanshi mine, the adoption of a GAD will offer significant advances on ‘women only’ approaches on two fronts. First, it is robust enough to critique the development process itself by highlighting how capitalist mining and industrial development adversely affect both the productive and reproductive lives of women. Gender is also conceptualized as a dynamic social construct, reflected in a greater appreciation of diversity in GAD, and can lead to shifts towards empowerment and participatory processes. Above all, as the ‘natural home’ for questions of race, GAD creates a space for understanding and accommodating ‘difference’ within its community of practitioners (White, 2006), allowing the creation of new and different identities for women from within the country and abroad. These women no longer need be uniformly victimized, poor and uneducated—the opposite of modern, liberated and educated ‘Western’ women. In GAD, the appreciation of diversity among women, especially around race and ethnicity has a transformative politics at its heart that is also materially engaged (McIlwaine and Datta, 2003). This engagement is one way to reduce the knowledge gap by integrating gender in community development projects.

Gender and development (GAD) approach seeks to integrate gender awareness into mainstream development efforts such that they address problems of gender inequality (McWilwaine and Datta, 2003). The GAD approach seeks to address inequalities by focusing less on providing equal treatment for men and women and more on taking whatever steps are necessary to ensure equal outcomes (since equal representation and treatment does not always result in equal outcomes) (Ibid). GAD model recognizes that improving the status of women cannot be understood as a separate, isolated issue and can only be achieved by taking into account the status of both genders (Kemp et al., 2010).

The GAD approach goes further than WID or WAD in questioning the underlying assumptions of current social, economic, and political structures (Jane, 1982). A gender-and-development perspective does not lead only to the design of intervention and affirmative action strategies to ensure that women are better integrated into ongoing development efforts (Kemp et al., 2010). It leads, inevitably, to a fundamental reexamination of social structures and institutions and, ultimately, to the loss of power of entrenched elites, which will affect some women as well as men. At the level of practical

programming and project development, this may be construed as a weakness. The GAD approach does not easily lend itself to integration into ongoing development strategies and programs (Ibid). It demands a degree of commitment to structural change and power shifts that is unlikely to be found either in national or in international agencies. White (2006) documents that experience has shown that even socialist states committed to the reform of the class structures of their societies have shown less interest in reforming gender biases. Not surprisingly, a fully articulated GAD perspective is rarely found in the projects and activities of international development companies although examples of partial GAD approaches can be identified (McWilwaine and Datta, 2003).

3.0. CHAPTER THREE: METHODS

This chapter shows the appropriateness of the collection techniques used to gather data and the methodological approaches employed, and to justify their use.

3.1.0. Research Methods

Caroline and Janet (2002) define 'methods' as general approach to research, as in empirical method, scientific method or Marxist method. It therefore, refers to techniques and procedures used for exploring social reality and producing evidence. In view of this definition, the techniques and procedures this study used include interviews, observation checklist, self-administered questionnaires, and document analysis. The methodological approach for this study involved mixed methods study (triangulation/quantitative and qualitative). This is because the study collected a body of both qualitative and quantifiable data (Bryman, 2012) in connection with variables which examined factors contributing low representation of women from a gender perspective. This approach was also used so as to cross validate different but complementary data. In addition, triangulation approach was applied in order to answer the objectives and questions fully. Qualitative data sought an in-depth elucidation and detailed understanding of gender related factors while quantitative data showed the extent of gender disaggregated data in the workforce and also gender disaggregated perspectives of respondents; perceptions and attitudes of management and employees towards mining jobs; grading of workplace challenges and recruitment, promotion and training procedures of employees. Therefore, where one technique was hand capped it complemented another so as research findings could be enriched and seal the loopholes.

3.2.0. Research Design

The research design of the study was case study. It was a case study design as it endeavored to bring out deeper insights and better understanding of the factors contributing to low representation of women at Kansanshi Mining Plc at all levels and across occupations. This research also showed specific details of the situation in which it was being conducted and also described the data and characteristics about the phenomena

being studied. It is therefore concerned with sampling, questionnaire design, questionnaire administration (self administered questionnaire) and data analysis. On the other hand, the research entails the detailed and intensive analysis of gendered related issues at the research site. As Stake (1995) observes, case study research is concerned with the complexity and particular nature of the case in question. Factors contributing to low representation of women Kansanshi Mining Plc were the object of interest in their own right and the researcher aimed to provide an in-depth elucidation of them.

3.3.0. Data Collection

Data was collected at Kansanshi Mining Plc, a First Quantum subsidiary in Solwezi district. Kansanshi Mining Plc is Africa's largest copper mine.

3.3.1. Study Site

The study site is Kansanshi Mining Plc in Solwezi - North-Western Province which is one of Zambia's ten provinces. It covers an area of 125,826 km² and has a population of 727,044 (Central Statistical Office Report, 2010), of which 358,141 are men representing 49.3 per cent and 368,903 are women representing 50.7 per cent. It is the most sparsely populated province in the country. Solwezi is the provincial capital of the North-Western Province of Zambia. Solwezi has approximately 65,000 inhabitants at an elevation of 1235 meters above sea level. The main industry in Solwezi is mining. Kansanshi Mine - Africa's largest copper mine, is 80 per cent owned by Kansanshi Mining Plc, a First Quantum subsidiary. The remaining 20 per cent is owned by a subsidiary of Zambia Consolidated Copper Mines (ZCCM). The mine is located approximately 10 kilometers north of the town of Solwezi and 180 kilometers to the northwest of the Copper-belt town of Chingola. Kansanshi Mining Plc exploits copper-gold ore from Kansanshi Anticline. The mining site has been running since the 19th century for copper and gold successively. However, large scale production of minerals began in 2001.

3.4.0. Choice of the Study Site

Kansanshi Mining Plc in North-Western province was purposively chosen as a study site due to the soaring mining and business activities which have a multiplier effect on the economy of Solwezi in particular and Zambia in general. The selection was necessitated by the unique role it plays in corporate social responsibility within the catchment area of Solwezi district, yet women representation is low in its rank and file despite the proclamation of an equal opportunity employer.

Currently, the mine is boasting of high copper productions. Besides, North Western province is one of the least developed provinces and the coming of Kansanshi Mining Plc could caution the situation of under-development and provide equal job opportunities to both women and men. Many people from many walks of life are attracted to the city to do business and work in the mines. It has become the converging centre for trade and employment opportunities as many people, men and women alike, find their way there. As such, men and women are looking up to mining investments in the area to better their livelihoods through employment and other economic activities.

3.5.0. Data Collection Instruments

Data collection instruments involved self-administered questionnaires with employees and management, in-depth interview guide with management and employees, digital voice recorder with key selected informants (management and non-management staff), observation checklist for gender inclusiveness policies and programs with management and record review guide of management documents. The researcher interacted with the subjects by administering questionnaires and holding face-to-face interviews to collect data. The use of interview schedules during face-to-face interviews enabled the researcher to make follow-up questions to ascertain some information and assess the feelings, emotions, attitudes, and opinions of the respondents towards the research problem. Equally, the respondents were able to express their opinions freely. They further shared some ideas, views and experiences with the researcher. These qualitative methods of data collection were highly interactive and self-expressive between the interviewer and

interviewees. Miron (1998) describes the methods as responsive adaptable, having holistic emphasis, and humanizing the research activity.

3.6.0. Data Collection Methods

Multiple and complementary methods of data collection were used in this study. This was done in order to answer research questions fully so as to meet the research objectives.

3.6.1. Self-Administered Questionnaires – Management and Non-Management Staff

This was done by distributing the questionnaires to employees and management staff. These were collected after they were answered. This tool was useful as it determined the social demographic characteristics of the respondents; perceptions and attitudes toward what constituted male work and female work; recruitment, skills development and promotion procedures of prospective employees and physical environment vis-a-viz workplace challenges. Self-administered questionnaire as a method was useful in that it was administered to a considerably large number of employees and management in a short period of time. This was supplemented by in-depth interviews.

In order to explore management perceptions and attitudes towards participation of women and men in mining, and examine management knowledge about gender policy and programmes at national and sub-national levels, self-administered questionnaires were used supplemented by in-depth interviews.

3.6.2. In-Depth Interviews with Management Staff

In-depth interviews were conducted on a one-to-one basis with selected management and non-management staff. This was in order to solicit their perspectives on various issues such as staff recruitment, skill development and promotion criteria, perceptions on whether mining jobs are male oriented. This method was supplemented by document analyses.

3.6.3. In-depth interviews with Non-Management Staff

An interview guide was used with employees to examine perceptions and attitudes among employees towards mining jobs which require high and low physical strength and endurance done equally by both females and males. Face-to-face interviews were supplemented by self-administered questionnaires with employees as well as management.

3.6.4. Record Review of Management Document

In order to establish the extent of inclusion of men and women at all levels at Kansanshi Mine Plc including recruitment, skills development and promotion procedures, annual reports and human resources statistics were examined. Besides, the researcher reviewed the strategic plan of action to check what is stated therein as regards recruitment, skill development and promotion procedures of employees and how gender as a variable is pronounced. These documents provided vital and useful information that enabled to answer research questions in relation to research objectives. In addition, a checklist for gender inclusiveness regarding gender policy related issues was used.

3.7.0. Study Population

The study population comprised all employees at all levels of management and non-management employees directly employed in various occupations at Kansanshi Mining Plc for the period 2014. The non management employees who were considered for the study were those directly employed by Kansanshi Management. Therefore, this meant that employees working in various occupations under Contractors were not part of the study. Management was relevant to this study as they play a key role in designing the programs and facilitating programs implementation.

Besides, management is responsible for ensuring that all the technical and physical requirements necessary for a well-functioning mine, including equipment and building requirements, are met. Equally important is to make sure that policies, procedures, practices and processes are gender sensitive in order to recruit, develop and retain employees, particularly women, as mining is historically male dominated industry.

Therefore, the perspectives of management were necessary and crucial to this study. It is also the responsibility of management under Human Resources Department to scout for and recruit women and men required by the mining operations. Hence, Human Resources' function is to focus on the recruitment, management and career development of the workers in the mine.

The researcher also gathered perspectives from female and male employees. Feminist standpoint theory postulates that the 'subject' is the speaking truth which results in new knowledge of gendered social lives, grounded in experiences (Caroline and Janet, 2002). Female employees particularly speaking their truth are situated in relation to forms of power; that shape their lives; that they can (variably) exercise and determine whose voices can be heard. Employees (females and males) in this regard are crucial as the study tried to examine and understand factors contributing to low representation of women from the 'lived experiences.'

3.8.0. Sample Size

In total, 180 staff, comprising both non management and management staff, directly employed at Kansanshi Mining Plc were sampled to participate in the study. There were 130 responses to the survey, resulting in 81 per cent response rate. A representative cross-section of 20 management staff and 110 employees (non management) across departments stratified by gender were interviewed to draw their perspectives and experiences. The composition of respondents by category included the following in the non management category: Training and Development Department (T and D) (5 Females; 13 Males), Human Resources (10 Females; 7 Males), Corporate Social Responsibility (CSR) (4 Females; 15 Males), Core Mining/Operations (10 Females; 8 Males), Health Department (9 Females; 11 Males), Engineering Department (2 Females; 16 Males). At management level, the composition consisted of 8 females and 12 males as indicated in Table 1.

Table 1: Percentage Distribution of Respondents Selected from Kansanshi Mining Plc by Category and by Sex for the Period 2014.

	Sex		Total N (%)
	Female n (%)	Male n (%)	
Non Management			
‘T and D’ Department	5 (27.8)	13 (72.2)	18 (13.8)
Human Resources Department	10 (58.8)	7 (41.2)	17 (13.1)
CSR Department	4 (21.1)	15 (78.9)	19 (14.6)
Operations Department	10 (55.6)	8 (44.4)	18 (13.8)
Health Department	9 (45.0)	11 (55.0)	20 (15.4)
Engineering Department	2 (11.1)	16 (88.9)	18 (13.8)
Sub-Total	40 (36.4)	70 (63.6)	110 (84.6)
Management	8 (40.0)	12 (60.0)	20 (15.5)
Total	48 (36.9)	82 (63.1)	130 (100.0)

Source: Author’s Data (2014)

3.9. Sampling Techniques

Both purposive sampling and stratified sampling techniques were applied to this study. Purposive sampling was used for selection of management in relation to research questions. This type of sampling is essentially to do with the selection of units with direct reference to the research questions being asked (Bryman, 2012). A representative sample of 130 respondents comprising 20 management and 110 employees from various occupations were drawn for this study. The sample was a stratified sample selected in two stages from the 2014 annual employee database frame. Stratification was achieved by separating the workforce into management and non-management. Management was stratified into three levels namely senior management, middle management and lower management. On the other hand, non management was mapped according to departments which were stratified into 6 sampling strata as indicated in Table 1. Gender as a stratum

was applied for both management and non-management. This is because the study sought the perspectives of both female and male employees.

Stratified Random Sampling Technique was applied to sample both management and non-management employees from 6 departments. Stratified random sampling involved dividing the population into homogeneous gender strata, levels of management and occupation. This was because the sample from the population had to be representative in proportion to the workforce population. This technique was appropriate because of the nature of the study as it sought views and perspectives from both female and male employees. Additionally, the technique reduced the sampling error. Gender as a factor was crucial in this study as the responses were sex disaggregated.

3.10. Data Analysis

The analysis of quantitative data from the respondents was entered using Statistical Package for Social Sciences (SPSS) version 16.0 and analyzed using Chi-Square test for significance computation. Descriptive statistics were computed using the same software. The data collected was checked for consistency and accuracy. SPSS as a software was applied because it has provisions for data entry screen design, data cleaning as well as statistical analysis functions at the same time. It is a very powerful program which allows the researcher to compute a broad range of statistics for presentation of data; frequencies, tables, means, associations and correlations, examination of relationships among variables, and graphical results (Bryman, 2012). It is also user friendly. Qualitative data was analyzed thematically. Data was summarized and presented in specific segments according to research objectives and research questions. This was classified and tabulated while making all necessary comparisons.

3.11. Ethical Considerations

Rioba and Karashani (2002: 12) define ethics as “rules of conduct or principles of morality that point us towards the right or best way to act in a situation.” With this being the case, the researcher adhered and followed the ethical standard practice in this research study. So the following ethics were followed:

Informed consent: the researcher sought permission and gave adequate information to the survey participants on the topic so that they understood properly what was involved in the study. The researcher explained the risks and benefits to the participants of taking part in the research. Consequently the participants made an informed, voluntary decision out of their own personal volition to participate in the study by signing the consent forms. There was no manipulation or coercion whatsoever.

Privacy and confidentiality: the researcher safeguarded the privacy and identity of all the respondents. In addition, to ensure that there was maximum privacy, anonymity and confidentiality, all the respondents were known by code numbers which were written on the questionnaires. As such responses were seen only by the researcher and all questionnaires and other records were stored under the control of the researcher.

3.12. Limitation of the Study

The researcher was well aware of the possible biases inherent in the design and the process of data collection which might have influenced the findings. Firstly, it was acknowledged that it could have been more useful to conduct the study in all the mining industries of Zambia but it was only possible to focus and conduct the research at one site - Kansanshi Mining Plc due to the following reason: Firstly, North-western Province has become the hub of the booming mining industry in Zambia hence attention and focus has shifted from the Copper-belt Province. Therefore, there was the limitation of sampling error/biases. Secondly, there were selection biases in the study sample (sampling units) as some of the stakeholders such as former mining employees, educators from higher learning institutions, trade unions and mining consultants were left out. Another limitation is the non-answer error whereby certain questions were not answered and some questionnaires were not returned by sampled respondents. As such the research findings obtained were limited in scope.

4.0. CHAPTER FOUR: FINDINGS

Chapter four presents the findings of this study on the factors contributing to low representation of women at Kansanshi Mining Plc in Solwezi. The findings are organized around the objectives of the study as follows: (i) Social demographic characteristics of the respondents; (ii) participation of women and men in various occupations; (iii) Knowledge about gender policies and programs among Management; (iv) Staff recruitment, skills development and promotion procedures done from a gender perspective; (v) Perceptions and attitudes of management and employees towards equal participation in various mining jobs; and (vi) Challenges faced by employees from a gender perspective.

4.1.0. Background Social Demographic Characteristics of Respondents

This section provides socio-demographic characteristics of the respondents. Information on the characteristics of respondents such as age, marital status, educational level, number of years in employment and monthly income is important for the interpretation and understanding of findings presented in the report.

The respondents were asked to state their age in years as at the last birthday. Table 2 shows that majority of the respondents were in the ages 25 to 54 years age group, with about a third (36.2 per cent) and 29.2 per cent being in the 35 – 44 and 25 – 34 age groups respectively. Only a small proportion (less than 10 per cent) of the respondents was in the age groups less than 24 years and above 54 years.

Respondents in this study were also asked to state their highest level of formal education attained. Results of this study show that all female and male respondents attained college (31.6 per cent) or university education (68.5 per cent). However, more males 78 (60.0 per cent) compared to only 11 (3.5 per cent) of females attained university education. Conversely, more female respondents 37 (28.5 per cent) had attained college education compared to males 4 (3.1 per cent) as shown in Table 2.

Participants in the study were asked to state their marital statuses. The categorizations of marital status included never married, divorced, widowed and married. Results in Table 2 show that almost half 60 (46.2 per cent) of the respondents were married, 43 (33.1 per cent) of respondents were never married, 16 (12.3 per cent) divorced and 11 (8.5 per cent) widowed. However, more males 46 (56.1 per cent) reported married compared to 14 (29.2 per cent) females. In a dissimilar fashion, more females 25 (52.1 per cent) were never married compared to 18 (22.0 per cent) males. Similarly, more males 8 (9.8 per cent) reported divorced compared to 3 (6.2 per cent) females. However, almost same percentage was observed for females (12.5 per cent) and males (12.2 per cent) who were widowed.

Additionally, respondents in this study were asked to state the number of years in employment. Results show that the majority of respondents 75 (57.7 per cent) were in employment for more not less than 3 years and 36 (27.7 per cent) and 19 (14.6 per cent) being in less than 1 and 1 – 2 years respectively. In the year's categories 1 – 2, 3 – 4 and 5+, it was noticed that more males 107 (52.1 per cent) dominated than females 23 (47.9). However, in the less than 1 year category, more females 25 (52.1) were present than males 11 (13.4 per cent) as indicated in Table 2.

The sampled respondents were asked to state whether they were paid equally for equal work done between women and men in same positions. The results in Table 2, show that 119 (92.0 per cent) of respondents confirmed that they were paid equally for equal work. While, 3 (2.0 per cent) and 8 (6.0 per cent) responded 'No' and 'don't know respectively.' However, 92.0 per cent of both female and male respondents indicated that they were paid equally. Further, 44 (92.0 per cent) females and 75 (92.0) agreed that they were paid equal pay for equal work. 0 (0.0 per cent) females and 3 (3.0 per cent) male respondents didn't agree. 4 (4.8 per cent) accounted for female respondents who didn't know compared to 4 (5.0 per cent) male. As respondents commented during in-depth interviews:

“We are an equal opportunity employer and we pay our employees in same positions equally whether male or female.” Senior Female Accountant Officer

“Women and Men are paid the same amounts of money, same treatment of work conditions and same benefits! We do not segregate.” Senior Male Manager

“I get the same pay as a man because we do same work and we are in same position.” Female employee

“The way it is here is that men and women are paid the same as long as you are in the same position doing same work.” Male employee

Table 2: Percent Distribution of Respondents Selected from Kansanshi Mining Plc by Selected Background Characteristics in 2014

Background characteristic	Sex				Total	
	Female n	%	Male n	%	N	%
Age						
< 24	7	5.4	4	3.1	11	8.5
25 – 34	20	15.4	18	13.8	38	29.2
35 – 44	18	13.8	29	22.3	47	36.2
45 – 54	2	1.5	25	19.2	27	20.8
55 – 64	0	0	6	4.6	6	4.6
65 +	1	0.8	0	0	1	0.8
Total	48	36.9	82	63.1	130	100.0
Education						
Below Grade 12	0	0.0	0	0.0	0	0.0
College	37	28.5	4	3.1	41	31.6
University	11	8.5	78	60.0	89	68.5
Total	48	37.0	82	63.1	130	100.0
Marital status						
Never married	25	52.1	18	22.0	43	33.1

Table 2: Cont'd

Divorced	6	12.5	10	12.2	16	12.3
Widowed	3	6.2	8	9.8	11	8.5
Married	14	29.2	46	56.1	60	46.2
Total	48	100.0	82	100.0	130	100.0
Years employed						
< 1	25	52.1	11	13.4	36	27.7
1 – 2	5	10.4	14	17.1	19	14.6
3 – 4	14	29.2	23	28.0	37	28.5
5+	4	8.3	34	41.5	38	29.2
Total	48	100.0	82	100.0	130	100.0
Men and Women receive equal monthly pay for equal work						
Yes	44	92.0	75	92.0	119	92.0
No	0	0.0	3	3.0	3	2.0
Don't know	4	8.0	4	5.0	8	6.0
Total	48	100.0	82	100.0	130	100.0

Source: Field Data (2014).

4.2.0. Extent of Employees Participation in Various Occupations at Kansanshi Mining Plc from a Gender Perspective

This objective established the extent of employees in management roles as well as in various mining jobs occupations at Kansanshi Mining Plc.

4.2.1. Distribution of Employees in the Workforce by Sex in the Period 2006 and 2014

This section examines the distribution of employees by sex. Annual human resources statistics for 2014 at the study company revealed that in 2006, the total formal workforce was 502. Of this number women accounted for 32 (6.4 per cent) and 470 (93.6 per cent) was accounted for by men. In 2014, the total workforce at the time of the study was 2,560. Of this total workforce, women constituted 160 (6.3 per cent) compared to 2,400 (93.7 per cent) males as shown in Figure 1.

During in-depth interviews respondents from management and non management were asked why there were fewer women (160) compared to men (2400), despite the company being an equal opportunity employer. Four respondents noted that:

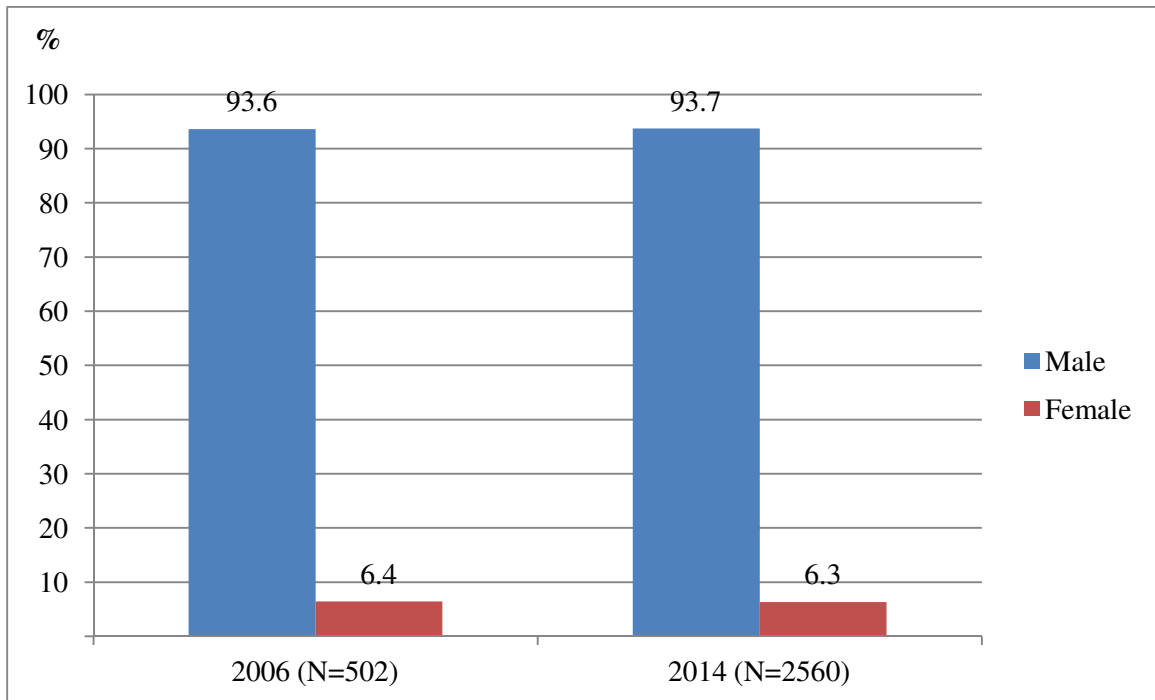
“A career begins with educational choices made by women at post-secondary educational or training institutions. In fact few women are choosing to enter mining related programs of study and fewer still are entering or pursuing careers in the sector. The under-representation of women in mining is also an outcome of educational pathways women select for post-secondary education or training. Young women are not choosing the industry as a career destination.” Female Human Resources Manager

“Mining jobs are often perceived especially by women as extremely physical work within a noisy, dirty, and harmful environment. As a result, this potentially negative perception represents a barrier that may continue to deter some women from considering a career in the industry.” Senior Male Human Resources Manager

“Most of us women think all jobs in the mining sector are hard and tough, labour intensive and physically demanding and because of this perception we don’t apply for jobs as men do!” Female employee

“Most of the women from learning institutions are scared of coming to work in mines because most mines are located in remote areas!” Male employee

Figure 1: Percentage Distribution of Employees at Kansanshi Mine Plc by Sex and by Year



Source: Kansanshi Mine Human Resources Statistics (2014).

4.2.2. Composition of Management at Kansanshi Mining Plc (2014)

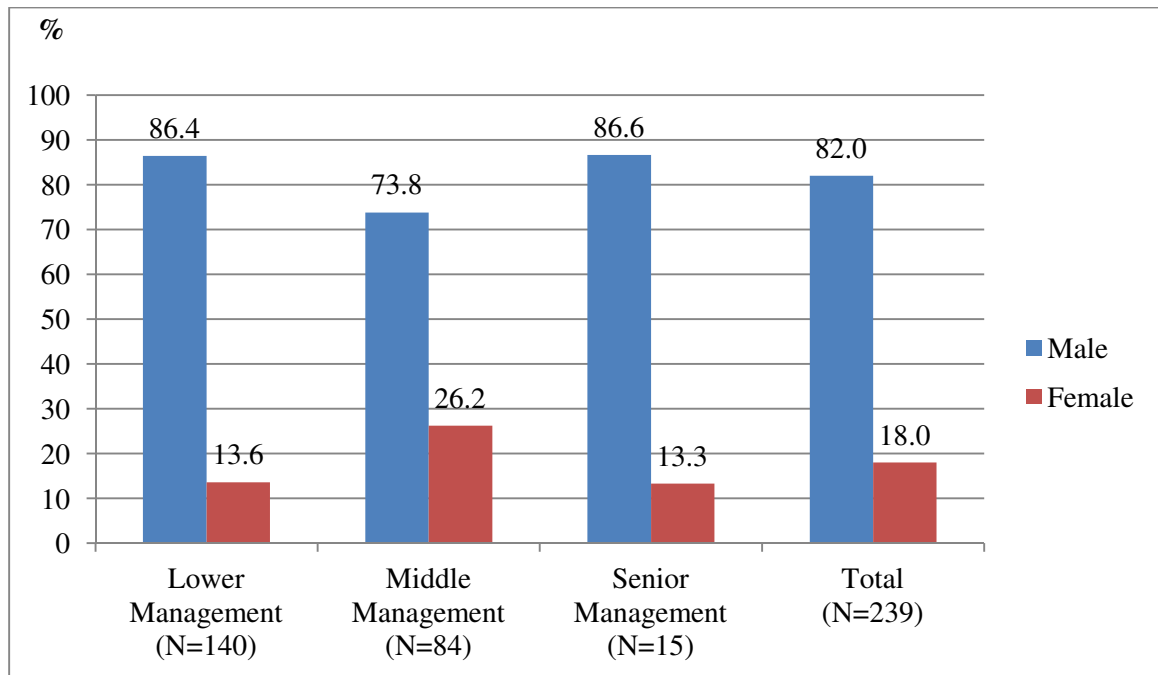
The participation of women in management is also another aspect this study examined. Therefore, this section examines the distribution of employees at Management by sex. Data presented in Figure 2, indicates that there are more males at all management levels than females. At senior management level, females accounted for 2 (13.3 per cent) compared with 13 (86.6 percent) males. At middle management level females and males accounted for 22 (26.2 per cent) and 62 (73.8 per cent), respectively. At lower management level the total population is 140 and females represented only 19 (13.6 per cent) while males were 121 (86.4 per cent).

The low representation of women in management roles at the mine was noted by two respondents who commented during in-depth interviews:

“We need more women in senior management positions and at all management levels to ensure that women are part of the decision making process, women participates in every selection process and that the recruitment processes are followed and no short cuts. However, some women again are scared to occupy senior positions in sectors for example, the mining industry where men dominate. Besides, lack the necessary qualifications, lack field experience and training and as a result supervisory roles in the field are currently occupied almost exclusively by men.” Female Environmental Scientist

“For a woman to climb the ladder and get to management position, one must have qualifications and experience. But again one must be also determined and assertive! I think women find it hard to excel probably because of the way we are socialized beginning in childhood. We are brought up to think that a woman must not rise and go beyond or be above a man.” Senior Male Metallurgist

Figure 2: Percentage Distribution of Employees by Management Level and by Sex at Kansanshi Mining Plc, 2014



Source: Kansanshi Mine Human Resources Statistics (2014)

4.2.3. Distribution of Employees in Selected Occupations at Kansanshi in 2014

Table 3, shows the distribution of women and men in selected occupations. The majority 26 (20.0 per cent) of employees is in administration and corporate services occupations. Of this total, women represent 15 (57.7 per cent) compared to 11 (42.3 per cent) men. Similarly, there are more women 8 (72.7 per cent) in culinary services as compared to 3 (27.3 per cent). In production and processing occupation, male participation is at 10 (55.6 per cent) compared to 8 (44.4 per cent) women participation. Conversely, there are more males in occupations such as natural, geological and earth sciences 8 (100.0 per cent); non-geological engineers 7 (77.8 per cent); and geological and environmental 9 (75.0 per cent). On the other hand, women are not represented in occupations such as industrial and heavy equipment mechanics and millwrights 0 (0.0 per cent) compared to 7 (100.0 per cent) males. In heavy equipment and crane operations, there are more males 8 (80.0 per cent) than females 2 (20.0 per cent). Women account for 3 (30.0 per cent) in professions such as Chemistry and Biology as compared to 7 (70.0 per cent) males. There are also more males 5 (62.5 per cent) in surface mining and related occupations than women 3 (37.5 per cent).

Table 3: Proportion Distribution of Respondents in Selected Occupations by Sex at Kansanshi Mining Plc, 2014

Selected Occupations	Women	Proportion Men	Total
	n (%)	n (%)	N
Natural, geological, and earth sciences professionals	0 (0.0)	8 (100.0)	8
Other sciences professionals (e.g., chemists, biologists)	3 (30.0)	7 (70.0)	10
Non-geological engineers	2 (22.2)	7 (77.8)	9
Geological and environmental technologists and technicians	3 (25.0)	9 (75.0)	12
Production and processing technologists and technicians	8 (44.4)	10 (55.6)	18
Industrial and heavy equipment mechanics, millwrights	0 (0.0)	7 (100.0)	7
Heavy equipment and crane operators	2 (20.0)	8 (80.0)	10
Surface miners and related occupations	3 (37.5)	5 (62.5)	8
Culinary services (e.g. cooking)	8 (72.7)	3 (27.3)	11
Other trade occupations	4 (36.4)	7 (63.6)	11
Administration and corporate services occupations	15 (57.7)	11 (42.3)	26
Total Labour Force	48 (36.9)	82 (63.1)	130

Source: Kansanshi Mining Plc Annual Statistics (2014).

4.3.0. Ascertaining Availability and Application of Gender Policies and Programs

This section ascertains the availability and application of gender policies and programs at the mining company. It further examines knowledge about gender policies and programs among management. Given the unique and challenging nature of mining environment, it is imperative to develop policies and programs which are gender sensitive so as to integrate women into the workforce. Checklist for review of key workplace policies in Table 4, revealed that out of the total eight (8) policies and programmes recommended by Women in Mining Guide (2009), five (5) policies were available and three (-3) were not available. They include employment equity policy; maternity and paternity leave policies, sexual harassment policy, staff development policy, strategic plan and one program for gender awareness against gender based violence. Among these policies and program, Table 4 shows that only staff development policy, maternity leave policy, strategic action plan, sexual harassment policy, and gender awareness programmes against gender based violence were available. Policies which were not available include gender policy, equity employment policy, and Paternity leave policy. Management was asked about these policies and it was established that in general they were not aware of them. During in-depth interviews two respondents in the study indicated that:

“Whilst policies’ exist, (of course not gender inclusiveness policies) these are not applied in a consistent or systematic way at our company. Management does not consider and address issues of women separate from issues of men, and as result we are treated equally instead.” Male Manager

“We have just implemented a flexible work arrangement policy but this means you build a safety case and it's up to your manager to approve this. Your manager is the key and unfortunately people tasked to formulate some of these policies are not knowledgeable and not trained in gender issues and hence the policies are not done from a gender perspective.” Female Professional

Table 4: Selected Key Policies and Programs to integrate women into the workforce at Kansanshi Mining Plc

S/#	Available Policies/Program and Comments
A	Available Policies
	<p>Staff Development Policy</p> <p>Not gender sensitive. The policy does not include gender as a variable regarding education, internships and learnerships to work in new departments where women and men can learn new skills. There is no allocating a certain percentage of funds or numbers of bursaries and internships each year for women and men as stipulated in ‘Women in mining a guide to integrating women into the workforce draft v 1.0. (2009).</p> <p>Sexual Harassment Policy</p> <p>The disciplinary code only includes a penalty namely: ‘dismissal’. The code does not include the following as stipulated in the ‘Women in mining a guide to integrating women into the workforce draft v 1.0’ (2009):</p> <ul style="list-style-type: none"> • Clear definition of sexual harassment. • Options for the victim of sexual harassment to resolve the matter. • Procedure for lodging a formal complaint. • Process for review and investigation. • Rights and consequences for both the accuser and the accused. <p>Maternity Leave Policy</p> <p>21 days granted. The policy is gender insensitive on the followings:</p> <ul style="list-style-type: none"> • Clearly stated role and responsibilities of line managers to: <ul style="list-style-type: none"> ○ Ensure all female employees are aware of the policy. ○ Periodically identify, record and review potentially hazardous environments to pregnant or breastfeeding women. • Clearly stated responsibility of women to inform their managers the moment they become aware that they are pregnant so that proper steps can be taken to ensure their health and safety. • Process to be followed by the line manager once an employee is pregnant to evaluate workplace risks and removal from her job, if needed.

Table 4: Cont'd

	<ul style="list-style-type: none">• Process to find alternative placement for the pregnant or breastfeeding woman.• Description of maternity leave benefits.• Policy on adoption.• Process for re-entry into the workforce. <p>Strategic Action Plan</p> <p>Despite indicating as 'Equal Opportunity Employer', there is no gender variable spelled out.</p> <ul style="list-style-type: none">• There are no instruments included to specifically address the needs of women in mining communities.• No concrete instruction/guideline on how to implement gender-appropriate policies. <p>Gender Awareness Programs Against Gender Based Violence</p> <p>Employees are inducted upon joining the company. However, the training is not provided to women and men on an ongoing basis to keep reminding employees of such aspects as what sexual harassment entails, what their rights are, who they should contact, and what the consequences of being caught are.</p>
B	<p>Policies Not Available</p> <ul style="list-style-type: none">• Gender Policy• Employment Equity Policy• Paternity Leave

Source: Human Resources Data (2014)

4.4.0. Assess Staff Recruitment, Skills Development and Promotion Procedures Done from a Gender Perspective

One objective of this study was to examine whether recruitment, skills development and promotion procedures of women and men at Kansanshi Mining PLC were done from a gender perspective. Regarding recruitment procedures, one respondent commented during in-depth interviews:

“As regards recruitment, men and women are selected and employed based on qualifications and merit procedures.” Senior Male CSR Manager

Results in Figure 3 indicate significantly that staff recruitment, skills development and promotion procedures were not gender sensitive. Over 60.0 per cent of respondents reported that staff recruitment, skills development and promotion were not done basing on qualifications or merit. This means therefore, that procedures followed during staff recruitment, skills development or promotion were not gender sensitive. However, less than 40.0 per cent of the respondents indicated that the procedures were gender sensitive. More males 42 (64.0 per cent) than females 22 (56.0 per cent) in the study revealed that recruitment of employees was not based on qualification or merit. Conversely, more females 17 (44.0 per cent) than males 24 (36.0 per cent) significantly revealed that staff recruitment, skills development and promotion were based on merit and qualifications.

However, the perspectives of management differed markedly from the perspectives of non management employees. Nearly, a third of management was likely to report that recruitment of employees was based on qualification and merit. The perspectives of management and non-management respondents commented during in-depth interviews were:

“As long as both male and female have the qualifications that are required for the job we employ them! But in a situation that male and female apply for a job and we only need one person, a female candidate will be employed!” Male Human Resources Manager

“Recruitment of staff at this mine is not done from a gender perspective because people who recruit do not have knowledge of or follow the international or regional gender

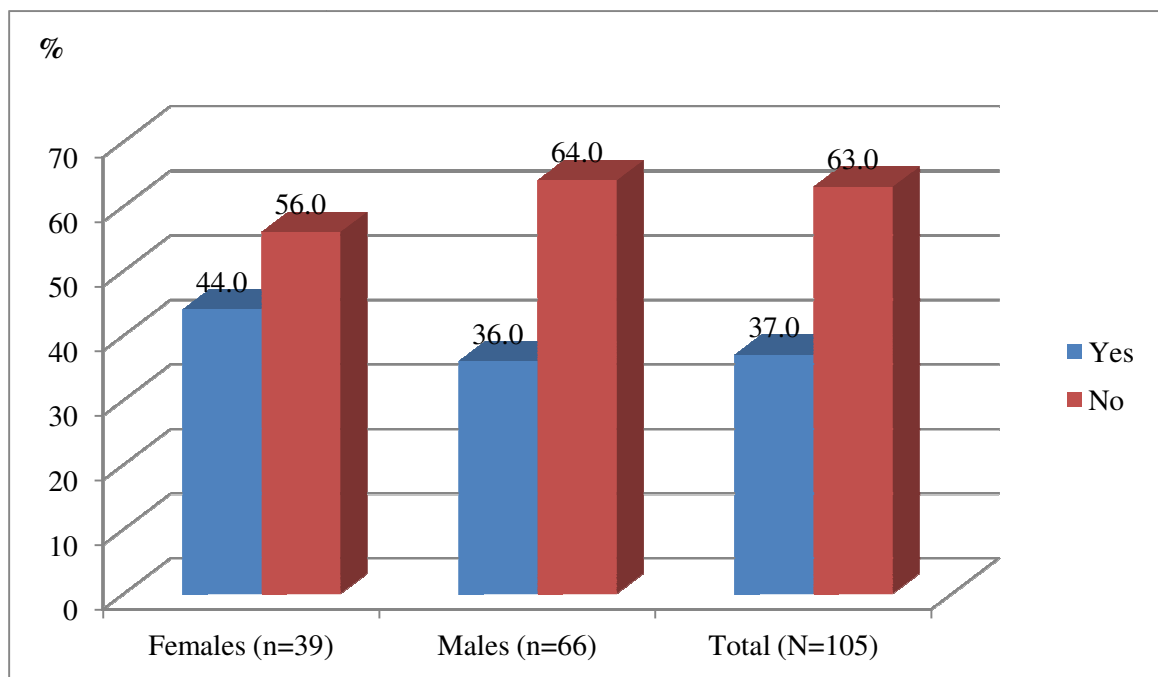
targets/quota system stipulated therein to ensure gender equality in participation.” Chief Female Liaison Program Officer

“We employ both females and males equally. We do not discriminate or favor one sex as that would mean injustice which is against our policy of equal opportunity employer.” Male Senior Manager

“We are employed equally! Women have same opportunities as men.” Male employee

“In as much as Kansanshi is an equal opportunity employer, I think men are highly favored because they dominate here!” Female employee

Figure 3: Is Staff Recruitment, Skills Development and Promotion Procedures at Kansanshi Mining Plc Gender Sensitive



Source: Field Data (2014)

Regarding promotion, the criteria were categorized as qualification, experience and ‘other’. Results in Table 5 indicate that 12 (30.0 per cent) of female and 35 (50.0) of male respondents said that qualifications were considered, while 13 (32.5 per cent) and 20 (28.6 per cent) female and male respondents respectively, said that experience was another criterion. 15 (37.5 per cent) female respondents and 15 (21.4 per cent) male

respondents indicated 'other' as the criterion applied in promotion of employees as indicated in Table 5. The perspectives of the two respondents on staff promotion criterion during in-depth interviews were:

“Promotion of employees is not fair! You have a situation where the bosses especially non blacks, don't even have higher qualifications that we have, but you find that person is above you. So it is not based on qualification or merit but..... may be, skin color! ”

Female employee

“So far, one woman has been promoted from the position of dump truck operator to that of supervisor in occupational health and safety because she has the experience.”

Engineer

Participants in the study were asked whether there was career development (skills development policy). Results in Table 5 show that over 90.0 per cent of respondents reported the presence of a skills development policy, while 3 (4.6 per cent) reported the absence of the policy. 19 (47.5 per cent) and 59 (34.3 per cent) female and male respondents indicated the presence of career development support. While 20 (50.0 per cent) of female respondents indicated that career development support was not there compared with 7 (10.0 per cent) male respondents. 1 (2.5 per cent) and 4 (5.7 per cent) female and male respondents respectively showed missing data (they did not answer this particular question) as indicated in Table 5.

Table 5: Percent Distribution of Employees by Skills Development and Promotion according to Sex, 2014

Characteristic	Employees (N=110)					
	Female (n=40)		Male (n=70)		Total (N=110)	
	%	n	%	n	%	N
Presence of skills development						
Yes	95.0	38	93.0	65	93.6	103
No	5.0	2	4.0	3	4.6	5
Missing Response	0.0	0	3.0	2	1.8	2
Total	100.0	40	100.0	70	100.0	110
Skills development						
Yes	47.5	19	84.3	59	71.0	78
No	50.0	20	10.0	7	24.5	27
Missing Response	2.5	1	5.7	4	4.5	5
Total	100.0	40	100.0	70	100.0	110
Promotion						
Qualifications	30.0	12	50.0	35	42.7	47
Experience	32.5	13	28.6	20	30.0	33
Other	37.5	15	21.4	15	27.3	30
Total	100.0	40	100.0	70	100.0	110

Source: Field Data (2014)

4.5.0. Explore Perceptions and Attitudes of Employers and Employees towards Equal Participation in various Mining Jobs

This section explores the perceptions of both management and non management respondents in the study towards equal participation in various mining jobs. The study gathered their perspectives. A stereotypical image of a sector unfriendly to women and myths that if females go into mine pits where they mine, minerals disappear or that their presence lead to accidents and death of miners may be barrier to women as much today as in the past. Respondents noted during in-depth interviews that:

“The presence of women in mine pits does not lead to accidents or disappearance of minerals! I drive down bottom of the open cut pit and load the truck with copper oxide and nothing of that nature has ever happened here. It is all lies!” Female driver

“There is historic belief to the pervasive viewpoint that mining jobs are traditionally male-oriented.” Female Civil Engineer

“Most people out there think jobs in the mining sector just involve digging in the ground, carrying copper concentrates and oxide, crushing or driving big trucks. They are mistaken! Technology nowadays has resolved many challenges. However, this potentially negative perception represents a barrier that may continue to deter some women from considering a career in the industry and work on equal basis with men. Almost every profession is in the mining sector as in other sectors, so nothing for men only but for every woman and man!” Female Supervisor

“Women are talking about gender meanwhile they don’t want to do work which men do at the mines. Let them come and work everyone is capable of doing any work as long as they have what it takes.....qualifications, self-esteem, confidence and motivation. There are women here who are doing fine and challenging even us men!” Male Employee

Further, both Management and Employees were asked if jobs which require high physical strength or endurance such as driving, maintenance, exploration and equipment training and fitting among others, be equally done by both women and men. The perceptions of these two respondents differed markedly. 65.0 per cent of management respondents

reported that jobs which require high physical strength or endurance could not be equally done by both men and women. While, 40.0 per cent of employees believe that jobs which require high physical strength or endurance should not equally be done by both men and women. Women perceived significantly mining jobs that require high or low physical strength and endurance could be done equally ($p < 0.001$). As one respondent commented during in-depth interviews:

“I may look like a woman but what is up there is a man’s brain! Out of my hard work was promoted from driving a 100 tone dump truck, 150 tones dump truck to 180 tones dump truck – the biggest dump truck. I am now a trainer, training men or women. Because of the nature of work I do, men don’t see me as a woman but consider me as a man. I behave like a man!” “So I feel proud and self-confident about doing a job that is commonly seen as difficult, and my earnings lead to far-reaching changes in improving family welfare.” Female Training Supervisor

By contrast, 65.0 per cent of management believes that jobs which require low degree of physical strength or endurance be equally done by men and women. 35.0 per cent of employees believe otherwise. Conversely, one respondent commented during in-depth interviews:

“Every work in the mine can be done by everyone – female or male! It is just a perception. If you can sweep at home you can also perform any work here. Personal characteristics such as confidence, assertiveness and even self esteem are what others lack and are identified as barriers to career advancement of females in mining.” Female engineer

Figure 4: Photos of Women doing Jobs Perceived to be Masculine in Nature



Source: Field Data (2014)

Table 6: Percentage Distribution of Respondents by Perceptions about Mining Jobs that Require High and Low Physical Strength and Endurance

Perception	Management (N=20)				Employees (N=110)				Total (N=130)	
	Female (n=8)		Male (n=12)		Female (n=40)		Male (n=70)		N	%
	n	%	n	%	n	%	n	%		
High Physical Jobs										
Done equally	5	60.0	2	16.5	26	65.0	42	60.0	74	56.9
Not done equally	3	40.0	10	83.5	14	35.0	28	40.0	55	43.1
Total	8	100.0	12	100.0	40	100.0	70	100.0	130	100.0
Low Physical Jobs										
Do Equally	6	75.0	9	75.0	28	70.0	39	55.7	82	63.1
Not Equally	1	12.5	3	25.0	10	25.0	28	40.0	42	32.3
Missing Response	1	12.5	0	0.0	2	5.0	3	4.3	6	4.6
Total	8	100.0	12	100.0	40	100.0	70	100.0	130	100.0

Source: Field Data (2014)

4.6.0. Workplace Challenges Faced by Employees at Kansanshi Mining Plc, 2014

This section examines both workplace challenges faced by employees and challenges to their career advancement by sex and rank. Respondents were statistically significantly more likely to report that there were challenges to female representation. Results in Table 7, show that out of 130 total respondents, 40.9 per cent of respondents reported lack of flexible work arrangements (rigid work conditions) at the mine. Of this, female respondents comprise 30.4 percent and 10.5 percent male. The second most important challenge reported by participants was lack of child care facilities (19.7 per cent) at the site for employees who had child care responsibilities. This is because employees with such responsibilities would be forced to withdraw from employment and instead start the responsibilities of caring at home. More female respondents (12.2 per cent) reported that lack of child care facilities was a challenge than males (7.5 per cent). One respondent noted during in-depth interviews:

“Working here for the majority of women becomes so challenging once they come at the site. The site is set up to accommodate men as they have out-numbered female employees. Lack of child care facilities, lack of female mentors, and the inflexibility of travel make working at site for me, personally, mentally difficult.” Female Supervisor

“Women are not able to work on a seven-day-in, seven-day-out schedule once they have children. The camp is set up to accommodate men.” Male Engineer

Male dominated workplace culture was third with 14.3 per cent female respondents, which in contrast was addressed by only 3.0 per cent male. Because of male dominated workplace, some respondents commented during in-depth interviews:

“I have experienced crude jokes and harassment, a struggle for acceptance which I see as a barrier to me in particular, and female participation in general. As a result, such struggles may continue to influence the perception women have about today’s mining sector as an ‘unfriendly male dominated workplace’ for women.” Female employee

“Some men think that since I am a lady they can take advantage of me! That is why they go to the extent of saying all sorts of unpalatable languages but I simply look at them but sometimes I warn them. ” Female employee

“Cases of harassment are there more especially from men but depend on how you respond to that. I don’t pay attention all I say is I am here for work! ” Female Engineer

“Harassments are faced by almost every employee here. I have been insulted before!” Male employee

Remote location of the mine site was identified as a challenge by 14.0 per cent female and 1.5 male respondents as indicated in Table 7. Inappropriate physical infrastructure design was identified by 5.7 per cent female respondents compared to 3.0 per cent males. Similarly, lack of training and development support and lack of mentorship program followed successively at 5.4 per cent and 3.1 per cent respectively.

Table 7: Percent Distribution of Reported Work Place Challenges Impeding Success of Employees by Sex at Kansanshi Mining Plc, 2014

Challenges	Sex		Total (N=130)
	Female (n=48)	Male (n=82)	
	%	%	
Inflexible work arrangements	30.4	10.5	18.5
Male dominated workplace culture	14.3	3.0	7.0
Travel/remote locations	14.0	1.5	6.2
Lack of child care facilities	12.2	7.5	9.2
Workload	8.1	1.5	3.8
Inappropriate physical infrastructure design	5.7	3.0	3.8
Lack of training and development support	3.9	1.5	1.5
Lack of mentorship programs	3.1	3.0	3.8
‘Other work challenges’	7.8	68.5	46.2
Total	100.0	100.0	100.0

Source: Field Data (2014)

4.6.1. Challenges to Career Advancement of Respondents at Kansanshi Mining Plc

Male and Female Workers were both asked to identify gender-related barriers to career advancement. Apparent differences in perception emerged. While two-thirds of Women respondents reported that gender-specific challenges exist, less than 30.0 per cent of male respondents agreed. Table 8 lists the challenges to career advancement identified by women and male respondents.

Table 8: Challenges to Career Advancement Reported by Respondents by Sex and by Rank at Kansanshi Mining Plc, 2014 (Percent)

Top Challenges to Career Advancement	Females (n=48)		Males (n=82)		Total (N=130)
	%	Rank	%	Rank	%
Male dominated workplace culture	25.8	1	3.5	5	13.1
Lack of mentors/social network	13.8	3	20.0	3	17.7
Perceptions of their abilities	9.9	4	0.0	0	3.1
Work-life conflicts	8.6	5	10.0	4	9.2
Inequalities in Human Resources practices	7.8	6	0.0	0	3.1
Lack of senior female leaders	4.4	7	3.0	5	3.1
Individual internal barriers (e.g., low confidence)	3.6	8	0.0	0	1.5
Lack of knowledge of workplace/career opportunities	3.6	8	24.0	2	16.2
Inappropriate infrastructure design	2.5	9	0.0	0	0.8
Lack of professional/career development	20.0	2	39.5	1	32.3
Total	100.0		100.0		100.0

Source: Field Data (2014)

5.0. CHAPTER FIVE: DISCUSSION OF KEY FINDINGS

This section discusses key findings of the study with reference to study objectives and study questions. The factors contributing to low representation of women (6.3 per cent) compared to men (93.7 per cent) include: high education qualifications (post secondary) recruitment criteria required by the mining firm and lack of experience among women employees; lack of gender inclusiveness policies and programs along with lack of sex disaggregated targets/quota system in recruitment, skills development and promotion of the staff; historic belief that mining jobs are traditionally male-oriented - perceptions especially by management that mining jobs as extremely physical work which women are not suited to do.

The study established that low representation of women is partly due to low levels of education among women. Especially lack of necessary qualifications required by the mining firm to recruit prospective employees in various occupations. The high criteria set for recruitment of employees which excludes those with no post secondary education where the majority of women are concentrated. Similarly, this study also established that women in management roles were few (18.0 per cent) as compared to males (82.0 per cent). This is also as a result of high criteria set which include qualifications and experience to hold managerial portfolios. This finding is in line with a similar study undertaken by Jennifer et al., (2007), which confirms that the under-representation of women in certain fields is partly due to high educational qualifications set by the employing firms which are visibly missing among women. Thus this phenomenon is an outcome of educational pathways women enter into for post-secondary training. Few women are choosing the industry as a career destination. Fewer students, particularly, females, are pursuing certifications in the trades the mining industry requires (Jennifer et al., 2007).

Underrepresentation of women could also be partly due to historical education system. The past education system structurally undereducated women and privileged the men (Munachonga, 1987). This is true for Zambia where the educational opportunities were

limited for girls than boys (Bardouille, 1992; Morrow, 1986). The role of education during this period was to prepare and train girls to be good mothers and wives rather than providing them with academic training (Ibid). Thus education for girls mainly included domestic science, cooking, child care and hygiene among others (Op. cit). This type of education served the aims of parents to prepare girls to assume the proper role of a woman in marriage (Morrow, 1986). Further, Kelly (1994), rightly observes that parents and communities attach insufficient value to girls' education; great emphasis is placed on a girls' future role as a wife and mother; females are burdened with many households duties and chores; parents, teachers, and the community do not expect them to perform well, especially in areas traditionally regarded as exclusively male (science and mathematics). Boys, on the other hand, received education to prepare them to assume low and lower middle level occupations such as mining jobs (Morrow, 1986).

Probably, because of the historical inequalities in the education system females have continued lagging behind even to the present date in certain professions such as the mining industry. This is despite efforts by the Zambian government under the ministry of education to put in place various policies at secondary level, training institutions and institutions of higher education such as re-entry policy (MoE, 1996), Programme for the Advancement of Girls' Education (PAGE) (MoE, 1997) and quota system (1996) at the University of Zambia to encourage the education of females (Msango et al., 2000).

Further, the study also found that available gender policies and programs at the study company were gender blind. No specific gender and equity policies exist yet; the staff induction process does not involve training in gender and equity issues and staff are not systematically exposed to the importance of gender issues. Gender, in general, is subsumed within the broad gamut of women presence at the mine. So far, the mining industry lacks strength in staff with the knowledge, skills and commitment to address gender issues in the workplace. As Macintyre (2006) points out gender is often nowhere, when it is believed to be everywhere; that is, gender is mainstreamed in name but gender equality is not specifically institutionalized by embedding gender-sensitive practices and norms in policy structures, processes, and environments of company policies.

Policies enquired into as recommended by women in mining-a guide to integrating women into the workforce (IFC, 2009) include gender policy; employment equity policy; staff development policy; paternity and maternity leave policies; sexual harassment policy; and strategic action plan. While, programs include gender awareness programs against gender based violence. Out of these policies and programmes, available policies at the company were: staff development policy, gender awareness programs against gender based violence, sexual harassment policy, maternity policy, and strategic action plan. Despite the availability of these policies, they have not included gender as a variable and other vital provisions stipulated in women in mining – a guide to integrating women into the workforce (2009). As a result, incorporating women in the workforce and promotion of gender equality remains a mere pipe dream.

Furthermore, guidelines and key tools such as ‘quotas’ that mandate managers to provide equal or preferential recruitment opportunity to women, as well as support structures to encourage more women to apply for jobs are not in place. These include appointment ratio tool and women in mining dashboard (World Bank, 2009). These are key tools that can be very useful in monitoring women and men recruitment targets. Appointment Ratio Tool enables individual managers to set targets for women recruitment for their department and to monitor them. The targets are different from manager to manager and according to their areas of operation. Women in Mining Dashboard provide a snapshot of women recruitment targets and such aspects as corresponding actual figures. It is compiled using relevant data from across departments of the company using System Applications and Products in Data Processing and the Appointment Ratio Tool (IFC, 2009).

Therefore, the knowledge base for building a gender-mainstreaming policy has so far been elusive rather than slow and incomplete. As a result, ‘policy’ is an unresolved issue at Kansanshi Mining Plc as it brings to the fore conflicts between the proclamation of being an ‘equal opportunity employer’ and absence of gender policies and programs.

Another area of concern is the *mining culture* that includes the attitudes and beliefs of management in the industry. The prevailing ‘macho’ mining culture hampers the use of

'gender lenses' in areas such as staffing patterns. There is a widespread historic belief that mining jobs are traditionally male-oriented. This perception is dominant (65.0 per cent) among management who reported that mining jobs which require high strength or endurance cannot be done by women. As a result there is a strong link between management preferences of male gender group to female gender group. This perception, to a greater extent is probably, the value patriarchy assigns and attaches to feminine qualities such as "gentleness, empathy, compassionateness, tenderness, and nurturance" among others, and the high value it assigns to masculine qualities such as "assertiveness, aggressiveness, and hardiness" (Rosamarie, 2009). Mining jobs are viewed to be masculine in nature rather than feminine.

However, this potentially negative perception represents a barrier that may continue to deter management to recruit women in the industry. Mining jobs were perceived as extremely physical work within a noisy, dirty, and harmful environment and as such women are perceived incapable to do high physical strength and endurance jobs. Although this might be the case for certain mining jobs, it is not every job that requires high physical strength and endurance. Probably, this is traditionally, as it is often assumed that men, but not women, can handle jobs in such an environment (Lahiri-Dutt, 2010). Further, Lahiri-Dutt (2006), asserts that cultural attitudes towards what constitute male or female jobs result in occupational segregation.

The scenario reveals continued existence of gender stereotypes that cast men as breadwinners and workers, and women as homemakers (Munachonga, 1987). Further, this confirms what Stoetzler and Yuval-Davis (2002) posit that such scenarios perpetuate the idea that mining is suitable only for men and ignore the fact that the few women in mining field are breadwinners in their households. Women are thus disadvantaged in wage employment and continue to be under-represented at Kansanshi mine. The under-representation of women at Kansanshi reflects broader social inequalities and an obstacle to sustainable gender equality and equity.

This study has shown marked differences between men and women in terms of participating in management positions at all levels and across occupations by sex. Only 18.0 per cent of women were occupying management positions compared to 82.0 per cent of men. Of the total workforce of 2560, women accounted for 6.3 per cent as compared to 93.7 per cent men. The under-representation of women at the mine reflects broader social inequalities, but gender inequality is an obstacle to achieving gender equality and gender equity. As a result of male domination in all levels of management and occupations, women as a category are utterly neglected within the industry and make it precarious for the mining industry to contribute to an equal mining community workforce that ensures greater involvement of women.

The factors contributing to the observed low representation of women in various occupations and management positions at all levels were high education qualifications (post secondary) recruitment criteria required by the mining firm and lack of experience among women employees. There are more male graduates (63.0 per cent) from tertiary institutions than female graduates (37.0 per cent) especially in trades skills and engineering courses. This situation in tertiary institutions is reflective of the situation at Kansanshi Mining Plc.

Further, policies are an integral aspect and a hallmark in any undertaking that concerns public interest. However, lack of gender inclusiveness policies makes it precarious to achieve equitable representation of women and men. As a result, lack of gender inclusiveness policies remain an unresolved issue for Kansanshi Mining Plc as it brings to the fore conflicts between the proclamation of being an ‘equal opportunity employer’ and absence of gender policies and programs. In addition, guidelines and key tools such as Appointment Ratio Tool and Women in Mining Dashboard that mandates managers to provide equal or preferential recruitment opportunity to women, as well as support structures to encourage more women to apply for jobs are absent. These are key tools that can be very useful in monitoring women and men recruitment targets. Appointment Ratio

Tool enables individual managers to set targets for women recruitment for their department and to monitor the progress towards achieving those targets.

Additionally, a stereotypical image of mining jobs is perceived to be hard and tough and as such requires high physical strength and endurance. This perception among management to a greater extent (65.0 per cent) influences male preference as target for employment.

6.1.0. Recommendations for Management

This section presents recommendations of the study to the Management of Kansanshi Mining Plc. There are three (3) recommendations to factors that contribute to low representation of women at Kansanshi Mining Plc namely; high criteria used for staff recruitment; lack of gender inclusiveness policies and programs at kansanshi mining plc and stereotypical image of mining jobs perceived as hard and tough by management.

6.1.1. High Criteria for Staff Recruitment at Kansanshi Mining Plc

In order to address high criteria for staff recruitment which has partly contributed to low participation (6.3 per cent) of women, the quota system should be put in place through the application of Women in Mining Dashboard and Appointment Ratio Tool. This is crucial as it will provide equal or preferential recruitment opportunity to women. Such a strategy should be building on the enabling environment which exists through the National Gender Policy (2000), SADC Heads of State's commitment to Gender Equality and through the Beijing Platform of Action (1995). The strategy should include time-frames and targets for the advancement of women in the sector. Progress should be measured through a SADC-wide annual report progress. The strategy should include a package of measures to support the advancement of women in the industry. To ensure progress henceforth, management should analyze and publish reports annually on the representation of women in their workforce.

6.1.2. Lack of Gender Inclusiveness Policies and Programs at Kansanshi Mining Plc

In order to make policies and programs gender sensitive, there is need for gender mainstreaming into policies and programs. Gender-mainstreaming policies and programs would require a thorough analysis of the ways that the workforce operates to limit female participation, in combination with a critique of deeply entrenched gender ideologies held by employers and employees. However, for mainstreaming to be implemented, a gender office must be created to articulate issues of gender in the design, planning and programming, implementation and monitoring and evaluation.

6.1.3. Stereotypical Image of Mining Jobs Perceived as Hard and Tough by Management

Diversity management training: Given that the male-dominated culture of the mining industry may be dismissive of women's ability to do certain jobs, especially in the core mining functions such as driving trucks, there is a need to change the mindset in the company with regard to women employment and capabilities. The company management staff needs to be sensitized towards working with women as well as men, viewing each other not only as fellow workers but believing that women can indeed also do both physically demanding jobs as well as other jobs in administration.

Ideally, this training should be conducted before women are introduced into the workforce so that people already in the organization are psychologically prepared to work alongside them. The training should then be repeated at regular intervals. Highlighting examples of women who are competently performing their jobs will go a long way to changing mindsets. Once these successful women are in place, they can be ambassadors, along with the men that they work with, for the change needed.

6.2.0. Recommendations for Women

The following are the recommendations of the study to the women. These recommendations are in line with low education skills among women and sex role socialization

6.2.1. Low Education Skills (Trades Skills in Mining Engineering Related Courses among Women) Required by the Mining Industry

This phenomenon could be resolved by choosing science based educational pathways for post-secondary training especially the trade skills and engineering courses required in the mining industry. In order for girls and women to consider the mining industry as a career destination, they should start pursuing certifications in the trades the mining industry requires such as sciences.

6.2.2. Sex Role Socialization

A sex role concept dictates that certain roles are suitable for some individuals on the basis of their sex. The notion of these roles being shared implies that most people endorse the expected behaviors as appropriate for men and women. As a result most girls and women are brought up to think that certain roles and professions like engineering are a preserve of boys and men. This is corroborated with Simone de Beauvoir's famous quote that 'one is not born woman, but, rather one becomes woman' (De Beauvoir, 1972). As a result, these cultural attitudes towards what constitute male or female jobs result in occupational segregation (Lahiri-Dutt, 2006). However, these notions should be 'abated' and 'unlearned' at family and community levels to create gender equality, and occupational segregation will be a thing of the past and women will start taking up roles in the mining industry perceived to be masculine rather than feminine.

6.3.0. Recommendation for the Government of Zambia (GRZ)

In an effort to bring about gender equity and gender equality in both the public and private spheres, the government of Zambia must translate policy commitment into practice.

6.3.1. Translating Policy Commitment into Practice – Government and Industry

In official documents of government such as ICMM-Zambia Report (2014) there is generally an acknowledgement that the issue of women in mining needs to be addressed. However, there has been no significant evidence of translating the commitment into practice. In order to redress this situation, there is need for political will and build capacity to implement commitments. Further investigation needs to be done on gender and mining into how paper commitments are being translated into practice and how progress is measured.

6.4.0 Future Directions: Benchmark Gender Equality in the Sector

Future research and action should include the creation of key gender sensitive indicators specifically designed to reflect changes in the status and roles of men and women. This

includes, but is not limited to, sex disaggregated data on female and male labour force participation rate, Gender wage differential, reported opportunities for professional development and satisfaction with support provided, and per cent of females and males with relevant skills set for employment. Indicators must be specific to international, regional, country specific and local contexts and be either qualitative or quantitative.

There is very little published research on women in mining as regards 'factors contributing to low representation of women in Zambian mines and the SADC region. In this research it has been noted that this scenario does not appear to be unique to the region as there is little published work globally. This suggests that the area of gender and mining is vastly under-researched from a gender perspective. Future research and action should include stakeholders such as former female and male employees, students and educators from learning institutions and mine trade unions on their perspectives regarding challenges limiting full participation of women.

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8.0. APPENDICES

Appendix I: Informed Consent Forms for Respondents

Informed Consent Form: Factors Contributing to Low Representation of Women at Kansanshi Mining Plc.



THE UNIVERSITY OF ZAMBIA

SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

DEPARTMENT OF GENDER STUDIES

Introduction

My name is Bwalya Rodrick and I am a University of Zambia Postgraduate student pursuing master's degree in Gender Studies. I am doing a research on "**Factors Contributing to the Low Representation of Women at Kansanshi Mine**". Hence, I am seeking for information purely for academic purposes so that I am able to undertake this research. It is for this reason that you have been selected so that you help with the information that is needed for this research.

Procedures to be followed

You are being asked to participate in an interview that will take between 20 and 30 minutes.

There are no risks to you as a participant in this research study. During the interview you may decide to share information that is personal in nature. This could be stressful to you. Please note that you may skip any questions that you do not wish to answer or stop the interview at any time, without giving any reasons.

Be assured that your responses will be treated confidentially and will by no means be used against you. Your responses will be seen only by the researcher and all questionnaires and other records will be stored under the control of the researcher. The information given is specifically for academic exercise.

Agreement to participate and right to refuse or withdraw

Your participation in this study may not benefit you directly, but it may benefit others now and in future, if it helps to increase the understanding about ways to improve gender equality and equity in the mining sector.

You understand that you are free to ask questions before signing this form and that if you have further questions during the course of this research, you can contact my Supervisor, Prof. Macwan’gi, at the Institute of Social and Economic Research - UNZA, telephone 294131/295055.

Consent statement for signature

I have read this entire consent form, or had it read to me, and any questions have been answered to my satisfaction. I agree to participate in this study.

Signature of Respondent:

Signature of Interviewer:

Date: Place:

**Appendix II: Factors Contributing to Low representation of Women at Kansanshi Mining
Plc: Self-Administered Questionnaire**

Questionnaire No: [__|__|__]

SECTION A: Social Demographic Information

1. Sex of respondent:

(a) Female []

(b) Male []

2. How old were you at your last birth day? (Indicate years) []

3. What is your current marital status?

(a) Never married []

(b) Married []

(c) Divorced []

(d) Widowed []

(e) Separated []

(f) Cohabiting []

4. What is the highest level of education have you obtained?

(a) Grade 7 []

(b) Grade 9 []

(c) Grade 12 []

(d) College []

(e) University []

(f) None []

5. What is your field of study? (E.g. BSC in Civil Engineering) Please specify

SECTION B: Work Background Information

6. How many complete years have you been working at Kansanshi mine? (If less than 12 months, write 0) [__|__]

7. In which department do you work?

8. What is your position in the department? _____

9. What is your role in this department? _____

6 What is your monthly income? K _____

7 Are there benefits for working in the mines?

(a) Yes []

(b) No []

8 Explain your answer.

.....
.....

9 Are there challenges that you face to work in the mines?

(a) Yes []

(b) No []

10 Explain your answer.

.....
.....

11 Are women and men participating equally in the mines?

(a) Yes []

(b) No []

o Explain your answer

.....
.....

12 What jobs do women usually do/hold at this mine?

.....
.....

13 Why do women usually do/hold such jobs?

.....
.....

14 What jobs do men usually do/hold at this mine?

.....
.....

15 Why do men do/hold such jobs?

.....
.....

16 Do you think jobs which require a high degree of physical strength and endurance be equally done by both women and men?

- (a) Yes []
- (b) No []
- 17 Explain your answer

- 18 In your opinion, do you think jobs which require low degree of physical strength and endurance are equally done by both women and men?
- (a) Yes []
- (b) No []
- 19 Explain your answer

- 20 In your opinion, do you think mining jobs at all levels are equally done by both women and men?
- (a) Yes []
- (b) No []
- 21 Explain your answer

- 22 Are women in same positions as men paid equally?
- (a) Yes []
- (b) No []
- 23 If no, what do you think is the reason?

SECTION C: Workplace Environment

- 24 Are the following facilities and services available at the mines? (tick the ones which are available)
- i. Change rooms
 - ii. Toilet facilities
 - iii. Sanitary bins
 - iv. Shower rooms
 - v. Male urinals

- vi. Child-care facilities
- vii. Transport
- viii. Accommodation
- ix. Counseling services
- x. Women's union
- xi. Sexual harassment training
- xii. Other (Specify)

.....

- 25 What kinds of facilities are available?
- (a) Unisex []
 - (b) Separate []
 - (c) None []
- 26 Do employees working underground or construction wear protective equipment/clothing?
- (a) Yes []
 - (b) No []
- 27 If yes, is the protective equipment/clothing suitable for both women and men?
- (a) Yes []
 - (b) No []
- 28 If no, explain
-

- 29 Is the design of mining machinery suitable for both women and men working underground/up ground or in construction?
- (a) Yes []
 - (b) No []
- 30 If no, explain
-

- 31 Are there any measures put in place to limit exposure of workers to harmful substances and working conditions?
- (a) Yes []
 - (b) No []
- 32 If yes, explain the measures taken to limit exposure of

(a) Women from harmful substances and working conditions

.....
.....

(b) Men from harmful substances and working conditions

.....
.....

33 Are there mine workers who have left/quit work?

(a) Yes []

(b) No []

34 If yes, what do you think are the reasons for

(a) Women leaving the company

.....
.....

(b) Men leaving the company

.....
.....

35 Do you know what sexual harassment is?

(a) Yes []

(b) No []

36 If yes, are there cases of sexual harassment at the mine?

(a) Yes []

(b) No []

37 If yes to question 35, who are the victims of sexual harassment?

(a) Women []

(b) Men []

(c) Both []

(d) Other (Specify)

.....
.....

38 Who are the perpetrator(s) of sexual harassment?

(a) Man []

(b) Woman []

(c) Both []

39 What support is given to victims of sexual harassment?
.....
.....

40 How are cases of sexual harassment dealt with?
.....
.....

41 Are there gender sensitization awareness programs on sexual harassment?
(a) Yes []
(b) No []

SECTION D: Recruitment, Skills Development and Retention Procedures

42 Do you think the recruitment process at this mine is done from a gender perspective?
(a) Yes []
(b) No []

43 Explain your answer.
.....
.....

44 Does the company have a skills development policy
(a) Yes []
(b) No []

45 If yes, does the company provide skills/training to both women and men equally?
(a) Yes []
(b) No []

46 If no, why do you think the company does not train women and men equally?
.....
.....

47 Is the selection for training of women and men done equally?
(a) Yes []
(b) No []

48 If no, explain.
.....
.....

- 49 Does the company award scholarships equally to men and women?
 (a) Yes []
 (b) No []

50 If no, explain?

51 Do you think management promotes women and men on merit?

- 52 In your opinion, do you think male miners have accepted female miners in the workplace?
 (a) Yes []
 (b) No []

53 What does the company do for pregnant and breastfeeding women identified as being unable to do their current job for health and safety reasons?

SECTION E: Perceptions and Attitudes of Employees and Management towards Participation in Mining

57. How do you describe the work that you do in the mines?

58. Do you think men have accepted women as co-workers?

59. How do you think senior management perceives gender issues at the mines?

60. Do you think female employees are given equal opportunities as male employees in this company? Explain.

- Do you think women and men are given equal opportunities to develop their skills?
 (a) Yes []

(b) No []

61. Explain your answer

.....
.....

62. Are there any specific practices by senior management that inhibit the promotion of equal opportunities for women and men? Explain.

.....
.....

63. Are there any specific attitudes/perceptions that inhibit the attainment of equal participation of men and women? Explain.

.....
.....

64. In your opinion, what do you think can be done to improve the situation?

.....
.....

65. Are there cultural beliefs that limit women to work in the mines?

(a) Yes []

(b) No []

66. If 'yes', explain what these beliefs are?

.....
.....

67. Minerals disappear when women enter mine tunnels

(a) True []

(b) False []

65 Women cause accidents when they enter mine tunnels

(a) True []

(b) False []

The End

Thank you for participating in this interview!

Appendix III: Factors Contributing to Low Representation of Women at Kansanshi Mining Plc: Interview Guide - Senior Management at Kansanshi Mining Plc

Introductory/Overview Questions

1. How has it been like to work at the mines?
2. What are the key programs of the company in supporting community related gender activities?
3. What are the set targets for gender participation in community activities?
4. What do you think are the major challenges to implement gender related programmes and activities at the mines?

2. Knowledge of gender policies and gender inclusive programmes

- Are you aware of the national gender policy and what it stipulates?
- What international gender protocols on Mining is Zambia signatory to and what they stipulate?
- If yes, what have these protocols achieved since their implementation?
- Have you implemented these policies at the mines?
- Are there any gender awareness programmes in this company? Explain.
- If yes what have these programmes achieved? What are the successes?
- If no what can be done to improve the situation?

3. Recruitment, skills development and retention procedures

- What recruitment procedures are there for women and men?
- Are there a **training/ skills development policy** and budget in place?
- If yes, what does the company do to develop skills of both men and women?
- Is there a specific policy in place to support the advancement of women or men in the organization? Explain.
- Does the company provide bursaries or scholarships for employees
- If yes, what are the criteria for women and men for selection?
- How does the company encourage women to apply?
- What jobs do women and men usually do/hold at this mine?
- Why do women and men do/hold such jobs

- Do you think men and women are participating equally in all activities and programmes? Explain.
- If no how do you think the company should do to achieve gender equality and equity in the participation of women and men at the mines?

4. Perceptions and Attitudes of Employees and Management towards Participation in Mining

- How do you perceive gender issues at the mines?
- Do you think female should have equal opportunities as male in this company?
- Do you think women are participating as men at the mines?
- If no, what is inhibiting equal participation of women and men?
- What do you think can be done to improve the situation?
- What does the company do for pregnant and breastfeeding women identified as being unable to do their current job for health and safety reasons?
- Do you think jobs which require a high degree of physical strength and endurance dominate by both women and men? Explain.
- In your opinion, do you think jobs which require low degree of physical strength and endurance dominate by women or men? Explain.
- In your opinion, do you think mining jobs should be dominated by men or women? Explain

5. Workplace environment

- What lifestyle facilities are in place for both men and women at the mines?
- Are there any specific lifestyle facilities at this place that inhibit participation of women or men? (e.g., day care child facilities, sanitary bins, transport).
- Is the infrastructure designed to support women or men at the mines? (e.g., toilets, shower rooms, housing, security check)
- Are there any women-specific occupational health or safety risks involved in women or men working on the mines? If yes what are they and how have these been managed?
- Do you think culture inhibit the participation of women or men in the mines? Explain
- If yes what can be done to improve the situation?

Appendix IV: Checklist for Review of Workplace Policies and Key Documents.

Interview Guide – Human Resources Department

1. Number of men and women by roles (examine annual reports and Human Resources Statistics).

Item	Women	Men	Comments
Board of Directors			
President(s)			
CEO			
Directors			
Senior management			
Middle management			
Lower management			
Professional-technical and scientific			
Professional-administration, legal			
Professional-administration, HR			
Professional-administration, Finance			
Technical and skilled trades			
Labour, Service and Production			
Clerical and Support			
Other			

2. Number of women and men by Occupation

Occupation	Women	Men	Comments
Natural, geological, & earth sciences professionals			
Non-geological engineers			
Geological and environmental			

technologists & technicians			
Industrial & heavy equipment mechanics and millwrights			
Heavy equipment and crane operators			
Underground miners			
Administration and corporate services occupations			
Health occupations			
Some			

3. Number of women and men recruited and turnover rate since 2001 (examine annual reports and Human Resources Statistics).

Year	Hired		Turnover	
	Women	Men	Women	Men
2001				
2002				
2003				
2004				
2005				
2006				
2007				
2008				
2009				
2010				
2011				
2012				
2013				
2014				

Workplace Policies and Programmes

<p>4. Does Kansanshi have a written Gender policy? (Verify if copy is available).</p>	<p style="text-align: center;">Comments</p> <p>Yes [] what does it stipulate?</p>	<p style="text-align: center;">Comments</p> <p>No [] >> If not why?</p>
---	---	---

<p>5. Do you have an Employment equity policy? (Verify if copy is available)</p> <p>6. Do you have the Strategic Plan of Action?</p> <p>7. If yes, what does it state on employment of</p> <p style="padding-left: 40px;">(a) Women</p> <p style="padding-left: 40px;">(b) Men</p> <p>8. What does it state on the promotion of</p> <p style="padding-left: 40px;">(a) Women</p> <p style="padding-left: 40px;">(b) Men</p> <p>9. What does it state on retention of</p> <p style="padding-left: 40px;">(a) Women</p> <p style="padding-left: 40px;">(b) Men</p> <p>10. Do you have staff development policy? (verify if copy is available)</p> <p>11. If yes, what does it state on skills development of</p> <p style="padding-left: 40px;">(a) Women</p> <p style="padding-left: 40px;">(b) Men</p> <p>12. what does it state on retention of</p> <p style="padding-left: 40px;">(a) Women</p> <p style="padding-left: 40px;">(b) Men</p> <p>13. what are the criteria for selecting</p> <p style="padding-left: 40px;">(c) Women</p>	<p>Yes []</p> <p>Yes []</p>	<p>No []</p> <p>No [] (verify if copy is available) >></p>
--	-------------------------------	--

<p>(d) Men</p> <p>14. Parents leave policy (Verify the copy)</p> <ul style="list-style-type: none"> ○ Maternity policy ○ Paternity policy <p>15. Sexual harassment policy (verify if copy is available)</p> <p>16. Other gender inclusive policies and programs? (Verify if copies are available and what they stipulate)</p>		
---	--	--

- 16. Does Kansanshi include Gender as a variable in their Strategic Plan (How?)
- 17. Does Kansanshi have a Separate Budget Line Item for Gender (How?)
- 18. Does Kansanshi have specific programs to promote gender equality at the place of work?

The End

Thank you for participating in this interview!