Gender in Zambian Mining: Women in Nonmetalliferous Smallscale Surface Mining Sector

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Abstract—The paper reports research of female participation in the non metalliferous small-scale mining sector in Zambia. The objectives of the research were three-fold. The first objective was to establish the extent to which women participate in the sector by collecting sex-disaggregated data and gender division of labour from three mines. The second objective was to examine the human rights and gender problems. The third objective was to investigate the existence of a gender policy in the non metalliferous small-scale mining sector.

To achieve the objectives, three non metalliferous small-scale mines, within Zambia, namely Grizzly Mines (Ndola Rural Lufwanyama), Kariba Minerals Limited (Mapatizya) and Chipazuba Company Limited (Mapatizya), with total employment of 723, were visited. Selected employees and management employed by the three mines were subjected to interviews and questionnaires and their responses accounted for the primary qualitative and quantitative data collected in this study.

With reference to women participation, it was found that there were significantly more men than women in the three non metalliferous small-scale mines visited. In addition, women were under-represented in terms of ownership of mines, employment opportunities and roles. The research also explored the gender and human rights issues of worker exploitation, child labour, safety and health. It was found that exploitation of unskilled labour was widely prevalent. There was no presence of child labour. It was also found that there were no fatal accidents and workers do use personal protective equipment. No gender policy document was found as part of the management control systems at the three mines.

It was observed that the three mines were extremely beneficial to women as individuals and as members of family, community and Nation.

Keywords—Equality; gender; human rights; mines; smallscale mining; women; Zambia.

I. INTRODUCTION

The Copperbelt, along the north-western part of the country, is the mainstay of Zambia's economy (Heemskerk and Ketani, 2006). From 2000 to 2010, the large-scale mining industry consistently accounted for about 80% of export earnings, 13% of GDP and 15% of formal employment (Muchimba, 2010). Copper and cobalt account for more than 95% of the export value of minerals. The remaining 5%

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mostly comes from by-products of copper mining and from the sale of emeralds, sourced from smallscale mining. The Government of Zambia (GRZ) also receives substantial royalty, corporate and payroll taxes from the industry (Chileshe, 2013), apart from FDI into Zambia. While smallscale mining contributes little to the national economy, the activity has been a major source of formal and informal employment at the local level, not only of men but also of large numbers of women.

Gemstones account for a significant share of national mineral production but due to large-scale smuggling, their real contribution to the official national income is difficult to estimate. In addition to emeralds, amethyst, aquamarine, and tourmaline occur in significant deposits. Other gemstones that are sought after include beryl, garnets, topaz, agate, opal, and citrine (Heemskerk and Ketani, 2006).

Legally, the Mines and Minerals Act, 2006, of Zambia defines small-scale mining as exclusive mining rights for either emeralds only or other minerals only to an area not exceeding 400 hectares. In the case of gemstones the licence comes with a prospecting permit as well. Artisanal licences apply to citizens of Zambia who mine on plots of less than 5 hectares as part of mining in a community under local custom.

A. Problems of Gender and Cultural Issues in Mining

With special reference to gender and cultural issues, mining operations are often perceived as widening gender disparities within communities (Phiri, 2014). Women tend to bear a disproportionate share not only of excessive social costs or deficient benefits but also in terms of equal employment and leadership opportunities in the mining sector compared to their male counterparts. Yet women often play a significant role in reducing poverty at the household and community level. In response, the Government of Zambia has in the past put together a gender policy, GRZ (2000).

It has been observed that women have been less represented in the mining sector in Zambia from the 1930s. The situation was worse during the Colonial Era whereby women were not allowed to work in the mines. The major reason, as advanced by Parpart (1986), was that men were for the mining companies and the Colonial Government of prime interest relative to women. Specifically, there was a general feeling that women could not manage the manual work in the mines. Epstein (1981) argued that the main reason for rejecting female labour was the opposition to the provision of additional housing and feeding costs, which initially led to a rejection of married labour.

In Africa, small-scale mining companies on the African Continent have over 2.5 million workers with women occupying a proportion of 25-30%. Under this mining sector, women own mines, dig sand, sift soil in search for precious metals, wash ore and perform a variety of other jobs in the mine (Heemskerk and Ketani, 2006). As compared to their male colleagues, however, women typically do more marginal jobs and earn less from mining. With reference to gender dimensions and women participation in the mining sector in Zambia, records which date back to 2005 indicate that there were 52,000 and 134,000 women in the formal and informal sector respectively (Heemskerk and Ketani, 2006).

Seminal and pioneering literature abound, such as, globally, Hunt (2000), UN (1996), UN (2008) and Lu (2012), and, regionally, IEED (2002), there is limited research on how women have continued to be marginalized in both small-scale and large-scale mining operations in Zambia. This research was intended to add to the growing Zambia-specific research on women in mining in Zambia, such as Heemskerk and Ketani (2006), and national policy initiatives (GRZ, 2000).

B. Broad Research Objective

The aim of the study (Phiri, 2014) was to add information to a comprehensive understanding of not only the extent of women participation in the non-copper/cobalt small-scale mining sector in Zambia but also their role in mining and national development.

C. Specific Research Objectives

(1) To assess the extent of women participation in the smallscale mining sector in Zambia with reference to mine types/equipment, opportunities, roles, reasons, benefits and challenges they face in this sector, in Mapatizya in Kalomo (Southern Province) and Ndola Rural Lufwanyama (Copperbelt Province).

(2) To analyse the gender and human rights aspects of smallscale mining including women exploitation, child labour, occupational safety and health.

(3) To investigate the existence of a gender policy in small-scale mining.

II. CONCEPTUAL FRAMEWORK

The present research (Phiri, 2014) utilised concepts from Juliet Hunt's 11-step Gender Analysis Framework to establish the theoretical and practical sense of women participation in the non metalliferous small-scale mining sector in Zambia (Hunt, 2000). The framework was modified to four steps as shown in Table 1.

Table 1: Application to Case Study of Juliet Hunt's Gender Analysis Steps
(Modified from Hunt, 2000)

Step 1: Collect sex disaggregated workplace data in the non metalliferous
mining sector in Zambia.
Step 2: Assess the gender division of labour in the non metalliferous mining
sector in Zambia.
Step 5: Understand the complexity of gender relations constraints and
problems to address gender inequality.
Step 9: Assess the potential of the gender policy in the non metalliferous
mines to empower women, address strategic gender interests and
transform gender relations.

There are reasons for disaggregating information in Hunt development activities. (2000)argued that disaggregating information by sex is a basic good practice requirement for gender-sensitive programming, without it, it is difficult or impossible to assess the different impacts of developmental activities on males and females. In addition, Bishop (2002) contended that quantitative data that is broken down into comparative data on women and men will make any gender differences visible, otherwise, aggregating women and men into one unit such as 'people' or 'households' will make any gender differences invisible.

III. RESEARCH METHODOLOGY

The study (Phiri, 2014) adopted a two pronged-approach with, initially, a qualitative approach that suits case studies. Quantitative aspects were used through the administration of questionnaires to collect data on aspects like the number of women, men and children involved in small-scale mining (Shoko, 2002). This was used to broaden the scope of data collected.

A. Sample Population

The target population of the study included mine managers, workers and children. The population was targeted from three non metalliferous small-scale mines namely Chipazuba Company Limited, Grizzly Mines and Kariba Minerals Limited. However, children were not found on the mines, unlike the situation reported about in the rest of Zambia (International Labour Organisation Lusaka Office, 2009). The targeted population was subjected to interviews and questionnaires. Five respondents per mine were subjected to an interview (Table 2). Therefore, a total of 15 people were interviewed and completed questionnaires for this research. The 15 people included management who, in addition, to their own views, also provided personnel data on all managers and employees at the three mines, totaling 723. Therefore, parts of the qualitative and quantitative research findings in this study were based on the views of 15 respondents. The managers and employees were given different questionnaires and questions.

B. Research Instruments

The study used observational fieldwork, interviews and questionnaires to ascertain themes arising from managers' and workers' perspectives. These data sources were triangulated to demonstrate reliability in the study (Patton, 2001). In this study interviews accounted for 15 people of whom 6 were managers and 9 were workers, children were not there. The same people who were interviewed completed the questionnaires.

Name of Mine	Number of Respondents	Job Description	Gender	Date of Interview
Grizzly Mines	1	General Manager	Female	09/09/2013
	1	Mine Manager	Male	10/09/2013
	1	Security	Female	10/09/2013
	1	Pollution Controller	Male	10/09/2013
	1	Sorting	Male	10/09/2013
Kariba Minerals	1	Managing Director	Male	27/09/2013
Limited	1	Human Resource Manager	Male	27/09/2013
	1	Manager Sorting	Female	27/09/2013
	1	Manager Sawing	Female	27/09/2013
	1	Security	Female	27/09/2013
Chipazuba Company	1	Executive Director	Female	23/09/2013
Limited	1	Mine Manager	Male	23/09/2013
	1	Sorter	Female	23/09/2013
	1	Sorter	Male	23/09/2013
	1	Digger	Male	23/09/2013

Table 2: Profile of Respondents

IV. RESEARCH FINDINGS

The findings of this study (Phiri, 2014) as collected from three non metalliferous small-scale mines namely Grizzly Mines, Chipazuba Company Limited and Kariba Minerals Limited are divided into three parts based on the specific research objectives of the study (Phiri, 2014). The first specific research objective is an assessment of the extent of women participation in the small-scale mining sector in Zambia with reference to the working environment (mine type/equipment), opportunities, roles, reasons, benefits and challenges they face in this sector (Table 3 and Fig. 1). The second research objective is an analysis of the gender and human rights aspects of small-scale mining including women exploitation, child labour, occupational safety and health (Table 8). The third specific research objective is centred on an inquiry over the presence of any gender policies in the small-scale non-metalliferous mining sector in Zambia (Table 9).

A. Mine Type/Operations, Mine Equipment, Marketing, Why Women Seek Employment, Benefits to Women, Challenges Faced by Women and Addressing Challenges Faced by Women (Table 3)

In Table 3, the women who were surveyed work in both highly mechanised mines and technology-deficient emerald and amethyst operations, with gemstone small-scale licences. The mines have secretive marketing arrangements in which the ordinary workers, including females have no role. Exceptionally, two out of three executive mine directors, at the time of the survey, were women, and implicitly involved. With reference to reasons why women seek employment in the small-scale mining sector, Drescheler (2001) connected it to deterioration of subsistence farming, effects of drought on farmlands, lack of public and private employment, high inflation rate, high birth rate and the burden of extended families. This study also found that poverty drives women to seek employment in the sector. The most significant challenges faced by women were under-representation and stigmatisation in terms of roles and opportunities, due to gender, poor education and lack of professional skills. The mines are aware that women are under-represented but lack clear strategies on how to address the problem. Two of the mines have made efforts, or plan, to inject more women into the operational unit processes including being operators. One mine, the least mechanised, is doing little, as it is barely surviving and is looking to outsiders to facilitate survival, and thereby, implicitly, increase women participation.

In Lu (2012), it was argued that women are employed in the sector because of their feminine characteristics such as being assiduous, regular and dependable. Similarly, management at Chipazuba and Kariba stated that they employ women because they are hard-working and trustworthy. To the contrary, management at Grizzly Mines maintained that women are not more trustworthy than men because the time they employed more females more minerals were stolen, since as opposed to men they were difficult to search when knocking off.

B. Challenges Faced by the Mines

Managements complained of lack of support from the banking sector, creating very serious liquidity problems for them. According to them, banks are wary to lend as mine reserves are unreliable and, thus, unbankable. Lack of financing has reduced the production capacity of the mines, making it very difficult to meet orders. Possibly, mine owners have contributed to this image by their lack of financial transparency. While claiming financial problems, mine owners in the Copperbelt and Lusaka are seen enjoying luxurious lifestyles and building substantial residential and commercial real estate. The lack of a gemmological institute in Zambia makes it very difficult to provide certification and to value stones financially properly. The mines also complained that community expectations from them were too high with demands for good roads, schools and clinics, which they try to facilitate as best as possible. Secretive marketing and financial arrangements probably contributes to this, because villagers do not have a good picture of the financial situation. A common complaint also was the high cost of explosives and engineering maintenance.

Poor productivity was a common problem. Kariba Minerals Limited indicated that low productivity will no longer be a problem as it was the previous 7 years because of the recapitalization through the purchase of 1 bull-dozer, 2 excavators, 3 tipper trucks, 1 washing plant, and 6 sawing machines.

Table 3: Mine Type/Operations, M	line Equipment, Marketing	. Employment Reasons.	Benefits to Women and Challeng	zes Faced by Women (Specific (Objective 1)
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Grizziv Mines	Kariba Minerals	Chipazuba Company		
- Open-pit	- Open-pit	- Open-pit		
- Gemstone SM	- Gemstone SM	- Gemstone SM		
License	License	License		
- Produces Emeralds	- Produces amethysts	- Produces amethysts		
		, and the second s		
- Dump trucks	- Dump trucks	- Chisels		
- Excavators	- Excavators	- Hammers		
- Washing plants	- Washing plants	- Picks		
- Bulldozers	- Bulldozers	- Hires an excavator		
- Front-end loaders	- Front-end loaders			
- Graders	- Graders			
- Tractors	- Tractors			
- Generators	- Generators			
- water pumps	- water pumps			
- Compressors	- Compressors			
	- Sawing machines			
- Local in Zambia				
- International in				
Hong Kong, India,				
Japan, China				
Thailand				
- Lucrative employment				
- Earn salary for Provision of basic needs				
- Poverty drives most of them				
- Source of reasonable employment				
- Most of them are marginalize	ed in terms of roles and employment opportunities			
- Most of them lack professional skills				
- Stigmatisation				
-Lack of a clear strategy in	-Lack of a clear strategy in addressing problems	-Lack of a clear strategy in		
addressing problems faced	faced by women in the sector, the three mines try	addressing problems faced by		
by women in the sector, the	to do so in many ways.	women in the sector, the three		
three mines try to do so in	-Kariba Minerals has embarked on a wider range	mines try to do so in many		
many ways.	of programmes aimed at stimulating women	ways.		
-At Grizzly Mines, to	participation in the mining activities. In 2012	-However, at Chipazuba,		
increase female employees,	practitioners were contracted and trained 6 ladies	nothing much is done to		
the labour force has been	and 8 men in cutting; 2 women and 27 men in	address challenges faced by		
extended to sorting,	security; and 4 men obtained certificates in	women because the mine is		
operating excavators and	gemmology from the University of Zambia	less advanced and		
woman angineer applies for	Eollowing re-capitalization in 2012 Kariba	Management honor to lobby		
a job it is offered on the	-ronowing re-capitalisation in 2012, Kariba Minerals hones to employ a total of 108 women as	for assistance in terms of		
spot	sorters and 10 as sawvers	funding from government to		
SP SH	solicits and to us surryois.	train and employ more women		
		······································		
	 Open-pit Gemstone SM License Produces Emeralds Dump trucks Excavators Washing plants Bulldozers Front-end loaders Graders Tractors Generators Water pumps Compressors - Local in Zambia International in Hong Kong, India, Japan, China Thailand Lucrative employment Earn salary for Provision of It Poverty drives most of them Source of reasonable employ Most of them are marginalize Most of them are marginalize Stigmatisation -Lack of a clear strategy in addressing problems faced by women in the sector, the three mines try to do so in many ways. At Grizzly Mines, to increase female employees, the labour force has been extended to sorting, operating excavators and other small trucks and if a woman engineer applies for a job it is offered on the spot. 	 Open-pit Open-pit Gemstone SM License Produces Emeralds Oump trucks Excavators Washing plants Bulldozers Front-end loaders Graders Graders Tractors Generators Generators Generators Compressors Compressors Compressors Compressors Compressors Compressors Sawing machines 		

C. Challenges Faced by all Employees

In line with Machipisa (1997), the study found that negative attitudes to women participating in mining are an important constraint for their effective integration into the sector. At the mines visited, women were regarded as too physically and physiologically weak to work in the mines like men. Women, it was argued, can only do light jobs such as secretarial, cooking, sorting, sawing and security, not digging and blasting. At Grizzly Mines, the Executive Director lamented that there is a myth related to stigmatization of female workers in the mine whereby if production goes down or the mineral vein is not easily located, females are accused of making the mineral vein disappear because of their menstrual cycles. Heemskerk (2003) reported that women in small-scale mining do marginal jobs, as nightclub entertainers, sex workers and debt-servitude, and generally earn less compared to men. However, in the mines visited this scenario was not found, but women did complain of excessive sexual attention from male workmates.

D. Benefits of the mines to individuals, families and the local community

The present research found that there are more benefits at individual, company and community levels than at national level which explains why, according to Hemmati and Gardiner (2002), small-scale mining has more benefits for women. There is no discrimination in terms of income as both men and women have equal salary scales in their respective jobs. In line with the International Institute for Environment and Development (2002), most of the women employed in the three mines visited are found at the bottom of the institutions' hierarchy doing subordinate work such as sorting, security, sawing and cutting. Like men, and as observed by Lu (2012) in Bolivia, women in the three mines visited work very long hours. However, unlike in Bolivia, they earn a salary and are given special leave on request.

In terms of benefits of the mines to the local community, all the three mines are of great benefit in the local community. They are beneficial in providing employment to local people both on temporary and permanent basis. The three small-scale mines have assisted in community work such as rehabilitation of roads, schools, clinics and provision of learning materials and bursaries to deserving students. Kariba Minerals Limited, for instance, assisted the community to open a police post, renovated the clinic, rehabilitated the road, renovated and built teachers' houses at Muleva Community School and Mapatizva The Human Resource Officer at Kariba Basic School. Minerals Limited alluded to the importance of the mine in the area that, 'Kariba Minerals Limited is the economic backbone of Mapatizya. The local population is directly and indirectly dependent on the mine for employment; market for agricultural produce; roads, clinics, and schools rehabilitations'.

In terms of personal and family levels, the women involved in smallscale mining at the mines earn an income which enables them to provide basic needs such as education, food, health and shelter for their families. Some have been able to sponsor themselves to colleges. At Grizzly, management stated that all workers earn above the government monthly minimum wage in a range of US\$100 to over US\$1000 (corroborated by workers). At Kariba Minerals, management indicated that workers were unionized and the minimum wage for both temporary and core workers was at US\$114.40 at the time of the interview which was to be increased to US\$164 in January 2014 (corroborated by workers).

At Chipazuba Company, management indicated that there is a distinction between temporary and permanent workers. Temporary workers involved in processing of metals are paid according to their out-put. For instance, women who work as sorters are paid in a range of US\$0.6 to US\$2 per kilogram depending on the quality of their sorted mineralized material, while the permanent workers who work from Monday to Friday for five days per week get a minimum wage of K500 (US\$100) per month.

E. Benefits to the Nation and the Role of Government

In terms of benefits to the Nation, the three mines assist the government in providing employment to hundreds of people, who would find it very difficult to get employment elsewhere because of high unemployment in Zambia. Payroll and royalty taxes are also a very important contribution to government. In the case of Kariba Mine, the Government of Zambia owns 50 percent of the equity, and shares in dividends proportionately. The role of government needs strengthening in various ways. This includes attracting Chinese and other investors with financial and technical capacity, encouraging bank lending to the small-scale mines, facilitating the formation of more small-scale mines and discouraging speculators who are holding mining plots which they are unable to work.

F. Division of Labour on the Mines

As opposed to the view of Hemmati and Gardiner (2002), that SM represents a window of opportunity for women to penetrate the industry and build their careers, this study found that women are under-represented in terms of employment opportunities in the Zambian non metalliferous small-scale mining sector compared to men (Fig. 1). The data in Fig. 1 shows over representation in retrenchment and under representation of women in the workplace in professions, management, security and unit processes (cutting, sorting, sawing, and digging/blasting/drilling). In fact, the challenges faced by women in the mines visited are lack of education, training, gender discrimination and lack of effective representation which are also stated by the Department of Economic and Social Affairs, UN Secretariat (2008). In the case of education, young women are enrolling at engineering and mining schools around the country as well as at national universities such as Copperbelt University, Kitwe, Zambia. Over the medium term the problem of poor education will become less acute.

According to the International Institute for Environment and Development (2002) the percentage of women in smallscale mines in Zambia was estimated at 30%, and within the sector there is imbalance and only few women claim ownership and managerial positions compared to men. Similarly, this research found that female employees are few in the three mines visited accounting for only 35% out of a total of 723 workers (Fig. 1). Digging, drilling and blasting in all the three mines comprised of a total of 141 men. Women are inexplicably exempted from these roles. Among the three mines, only Kariba Minerals Limited employed 6 women as sawyers. Grizzly Mines and Chipazuba Company Limited do not employ women and men in the sawing department because they do not have sawing machines. This work is purely reserved for women as it is not hard to do. The machines are driven by electric power. Other findings (Fig. 1):

• Women in managerial employment accounted for 31%. However, the top-most positions (managing directors) at Grizzly Mines and Chipazuba Company at the time of this research were held by females.

• Professionally, out of a total of 723 employees in the three mines, 53% are untrained, 31% are trained men and 16% are trained women.

• Of a total of 102 workers retrenched from 2008 to 2013, inclusive, the percentage of women retrenched was 45 while that of men was 55.

• There are 6% women against 94% of men out of a total of 326 employed as mineral cutters in the three mines.

The heads of the cutting departments at Chipazuba and Kariba are females while at Grizzly it is a male.

• It was found that the total number of employees in the sorting departments is 182. The percentage of women employees is 9 against 91 for men. In all the three mines, this department is headed by females.

• The total numbers of employees in the security departments in the three mines was 29 and of these 7% were women and 93% were men. Matters of security on the three mines are spear-headed by males and the heads of this department are also males.

However, the sentiments by Hemmati and Gardiner (2002), are worth noting, that even if women have continued to be under-represented in the mining sector, the relatively larger number of women employed in the post-colonial era, has positively contributed to breaking the historical (colonial) and traditional engendered conception of male bread-winner in the sector.



Fig. 1. Gender division of labour from survey in 2013 of 723 workers and managers at Grizzly, Kariba Minerals and Chipazuba Nonmetalliferous Smallscale Mines in Zambia (Specific objective 1)

G. Human rights – Exploitation, Gender Discrimination, Child Labour and Safety and Health

Gender disparity was evident as shown in Fig. 1. Exploitation manifests itself in over-reliance on unskilled cheap labour at the three mines (Table 4), even though in one case, one mine is virtually a Government parastatal with 50% government shares. Child labour was not found. However, mothers were nursing on the job, implying child distress or circumstantial child working. No major safety and health problems were found, as most of the workings were shallow diggings or pits, with low technology. Since the workers wore personal protective equipment at work and had a first aid room, some modicum of safety was evident. Environmental degradation was visible. Excessive working hours were a feature were a common feature at the mines at the mines.

Table 4: Human Rights -	Exploitation,	Child Labour,	Safety and	Health (Specific	Objective 2)
		,			

	Grizzly Mines	Kariba Minerals	Chipazuba Company		
Exploitation	- All rely on unskilled cheap lab	- All rely on unskilled cheap labour.			
Child labour	- Not found	- Not found	- Not found		
	- Indirect	- Not allowed	- Indirect		
Safety and health	 No fatal accidents have occurred at the mines which are very shallow open-pits. Workers wear safety clothing. Grizzly and Kariba Minerals have safety aide-rooms and clinics, while Chipazuba only has a safety aid room. Very long hours worked. 				

V. CONCLUSIONS

This study was done to achieve three specific objectives, so the conclusions are tiered accordingly.

A. Extent of Women's Participation (Specific Objective 1)

 a) Mining Operations: Small-scale mining in Zambia is done mostly on non-copper-cobalt minerals. Non metalliferous small-scale mining is neglected in terms of policy and partnership by the Government of Zambia despite being licensed. The marketing system in small-scale mining is secretive and not clear. Most small-scale mines are open-pit. Small-scale mining in Zambia is lacking in investment, provision of loans and equipment.

b) Sex Disaggregated Data: Sex disaggregated information from the three mines is indicative of underrepresentation in the participation of women in various unit processes, while over-represented in retrenchment.

c) Employment Opportunities: Only 35% of the labour force are women. This is higher than in large-scale mining, and, while low, provides significant benefits to Zambia, as well as at personal and family level for women.

d) Roles: Most of the white-collar positions in the non metalliferous smallscale mining sector in the mines surveyed are occupied by men. In the target mines, only 31% of women were in managerial positions. Except in sawing, women are under-represented, in professional fields as well as security, digging, drilling, blasting, cutting and sorting.

B. Human rights – Exploitation, Gender Discrimination, Child Labour and Safety and Health Major Gender and Human Rights Issues (Specific Objective 2)

a) Human Rights: Exploitation, gender discrimination, child labour, safety and health hazards are the main gender and human rights related problems in the non metalliferous mining sector. It is clear that some small-scale mines have managed to meet the government minimum wage standard of, approximately, (US\$100) per month. Respondents from the three mining companies stated that they market their minerals both locally and internationally, mainly to China through

personal contacts. However, the marketing system is not transparent.

b) Child Labour: Child labour was not found in the formal non metalliferous small-scale mining sector surveyed, but was observed, in passing, to be widespread in informal small-scale mining sector. This is due to weak rules and regulations regarding the establishment of smallscale mines and the prevalence of unskilled labour.

c) Safety and Health: Safety and health hazards were observed at the mines, however, workers do wear personal protective equipment. In addition, there had been no fatal and or serious accidents. Environmental degradation and safety issues may increase because of the weak regulatory environment in terms of safety, health and environmental policy in Zambia.

C. Gender Policy in Small-scale Mining (Specific Objective 3)

It was found that there was no company with a documented gender policy. The implication is that if the mining and gender policy frameworks at the mines remain weak, women will continue to be under-represented or marginalised in the smallscale mining sector, despite it being more readily accessible to them than large scale mining.

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