Engendering the Global Financial and Economic Crisis: Unveiling the links between formal and informal sectors in the mining regions in Zambia and assessing the gender implications

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Abstract

The history of previous economic crises reveals devastating effects for the poor and vulnerable, with strong evidence of differentiated impacts for women and men. Reports on the recent economic crisis (2008/9) that severely hit Zambia's mining sector confirm the negative impacts of the crisis on the livelihoods of workers within the formal sector in the mining regions. Female and male workers in the informal sector associated with and dependent upon the formal mining sector have also been impacted by this crisis, although these impacts remain underreported. Due to differentiated impacts of the crisis for women and men, the livelihoods and the gender roles within families in the mining regions have dramatically changed. This case study assesses the implications of the economic crisis in the mining regions of Zambia, from a gender perspective, highlighting the interconnectedness between the formal and informal sectors and how the negative effects on one have a spillover effect on the other. The study makes visible the gendered impact of the economic crisis on local livelihoods in Africa, for those engaged in tradable and in non tradable sectors, debunking the assumption that local populations that are not directly engaged in economies linked to global markets experience less severe consequences of the global crisis.

Introduction

The recent global economic and financial crisis which turned into a "global human development and human rights crisis" started in United States of America in September 2008 and spread globally severely affecting the livelihoods of millions of people. It has also been described as a combination of "interlocking crises: a global economic recession, the devastating effects of climate change, and a deepening food and energy crisis" (Antonopoulos and Toay, 2009). The crisis has major social and economic implications and threatens to intensify gender inequality, derailing pledges made in the millennium Declaration in 2000 (Falth and Abbadi, 2009; UNIFEM, 2009).

This paper challenges the arguments that people whose livelihoods are not integrated into the global market economy, such as in rural Africa, are less likely to be affected by the aftermath of the current financial and economic crisis than those integrated in the global market economy; we show the strong connections between tradable and non tradable sectors and between formal and informal economies in developing countries and their vulnerability facing the global economic and financial crisis. This point is critical for understanding the broader effects of the crisis on the livelihoods of poor and underprivileged groups in developing countries. While these countries struggled to recover from the cumulative effect of prior increase in food and oil prices, they were further affected by and disempowered by the backlash from the recent economic crisis. With the global crises feeding into one another and changing livelihoods and gender relations, the global development practice faces the challenge of upholding past progress and maintaining the momentum to advance commitments to gender equality and women's empowerment.

The collapse of global financial markets was followed by a decline in the demand for manufactured goods and commodities, which led to a corresponding fall in prices and foreign exchange earnings that affected activities in the formal and informal, in the tradable and non tradable sectors everywhere especially in the least developing economies. The economic recession also led to a decline in Foreign Direct Investment (FDI) that previously supported development initiatives, and to the downsizing of business activities that supported the livelihoods of poor women and men in developing countries (Falth and Abbadi, 2009).

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The economic crisis—through trade and capital flow channels, affected activities at the macroeconomic level; it also affected local households when budget cuts on public social services combined with the rising cost of living worsen the material and social condition of the already poor, disadvantaged and vulnerable people, who were facing increasing unemployment and recession. This case study presents the gender implications of the economic crisis in the mining regions of Zambia. The research question guiding this inquiry is: How did the livelihoods and gender relations of the families depending either on direct employment or on the informal sector servicing the mining sector change after the economic crisis handicapped the mining sector in Zambia's Copperbelt?

We will examine the differentiated impact of the crisis on disadvantaged groups by exploring the links between the formal and informal sectors related to mining in Zambia's Copperbelt and the resulting changes in livelihoods associated with changes in gender relations. While the crisis affected both formal and informal sectors, women's over- representation in the informal sector, which offers lower wages and no social protection or benefits, made them more vulnerable to the negative effects of the crisis, as compared to men employed mostly in the formal sector. There is a need to better understand how the formal economy is intertwined with the informal sector, what the relationship between the two sectors is and how livelihoods associated with both sectors have been changed by the economic crisis. For this reason this case study focuses both on the formal mining sector and on the informal businesses that provide services around the mines in Zambia's Copperbelt.

As national plans are implemented to respond to the global economic and financial crisis, it is important to understand the impact of the crisis beyond the macroeconomic level on local livelihoods. This paper also provides some policy recommendations for the economic recovery process, calling attention to the need for gender responsive policies that recognize the specific needs of workers in the informal sector. Understanding the gendered dimension of the economic crisis at the macro and micro levels will enable policy makers to design responses that will not further exacerbate inequalities but promote sustainable and equitable economic recovery that also advances the Millenium Development Goals (MDG). Even though the focus of this paper is limited to the gender implications of the 2008/9-on going economic crisis for the mining regions of Zambia, the discussion will take into consideration some lessons learned from the Asian financial crisis of 1997.

This article is based on the report prepared by R. Namatovu during her six month practicum with the United Nations Development Program (UNDP) Headquarters in New York³ (from September 2009 to February 2010), which explores the impact of the global economic crisis on the African region, examining the coping mechanisms adopted by rural women and men, and proposing government responses for the recovery process that are gender sensitive⁴.

Context: The role of mining in Zambia and the impact of the crisis

Ranked among the poorest countries of the world, Zambia has 700,000 formal jobs for an economically active population of 11.7 million people. Over two-thirds of its population lives on a \$1 or less a day; the country ranked 164th out of 182 countries on the Human Development Index and 92nd out of 109 countries on the Gender Empowerment Measure (Human Development Report, 2009).

Mining has become the backbone of Zambian economy, as it has played a key role in the Southern Africa Development Community (SADC) comprised of Angola, Botswana, the Democratic Republic of Congo (DRC), Malawi, Namibia, South Africa, Zambia and Zimbabwe. The mining sector makes 22 percent of the total regional output amounting to over US\$ 92 billion and provides 3.2 million jobs to the people within the region (SARW, 2009, p.19).

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³Currently operational in 166 countries, UNDP advocates for social change supports national governments and local communities in building their own capacities towards solving national and global development challenges to facilitate the achievement of the Millennium Development Goals (MDGs). UNDP provides "pro-women's policy advice, capacity development, and supports projects for gender equality", covering areas like democratic governance, poverty reduction, crisis prevention and recovery, HIV/AIDS, environment and energy.

⁴ In addition to reviewing secondary data and grey literature, Regina interviewed Zambian and global gender and economic experts attending the 54th Session of the Commission on the Status of Women (March 2010 at the UN New York), members of the UNDP Gender and Poverty Cluster and Gender Practice Leaders from UNDP's regional support centers (Dakar, Senegal for West Africa, Johannesburg for Southern and Eastern Africa) and was actively involved in UNDP Gender and Poverty Cluster's E-discussion on the economic crisis, and in the 2010 E-discussion on Women and Poverty

Increased private investment in new and old copper mines since 2000 and especially 2008, led to a boom of the formal copper mining industry in Zambia; it also boosted operations in the informal "artisanal", small scale mines, and in the manufacturing and construction sectors providing employment in the Copperbelt and Lusaka regions (Klaveren, et al 2009; ILO Global Job Crisis Observatory, 2009). In addition to being the main source of employment in the Copperbelt, the mining industry provided workers and their families with social services such as medical care, housing and education. While the sector's contribution towards formal employment in 2008 was the lowest in the country (8 percent), it remained the main employer in the Copperbelt, also providing indirect employment opportunities to women and men through informal, small scale mineral and gemstone mines, as well as fostering other economic activities in the province (Ndulo et al, 2009).

The informal sector is quite important in Zambia, where only 700,000 of the country's 6,184,000 people in the labor force are employed in the formal sector, the rest being either unemployed or working in the informal sector. More than 50 percent of women workers in Zambia are unpaid family workers, 78 percent are part-time workers, 34 percent are self employed and 12 percent are paid employees; by contrast, 51 percent of the male work force is self-employed, 22 percent are paid employees, and 67.4 percent are part-time workers⁶. The Zambia Development Agency also reveals that Zambia's female labor force has higher under-employment rates as compared to the male labor force. As the impact of the global economic and financial crisis deepened and spread to the various national economies, the mining industry in the SADC region started showing signs of distress following the fall in global demand and prices of minerals such as copper. As a result, mines downsized their production and in many cases stopped production and closed down, all which lead to massive retrenchments of miners, who also lost their employment benefits (SARW, 2009).

Between 2009 and 2010, regional mining output was anticipated to further decline by 23 percent and by 2020, the aftermath of the crisis would spread to manufacturing, construction and service sectors with broader impacts on national economies of countries such as Zambia, Zimbabwe, the DRC (200,000 jobs lost), and South Africa (30,000 jobs lost), (Musokotwane, 2009; SARW, 2009, p. 7 & p. 20). Hence, the industry was expected to operate below its employment capacity of 175, 000 mining jobs, quite a contrast with its 2008 employment potential (SARW, 2009).

Zambia became a significant player in the global economy due to its copper export and through its trade with industrialized countries. After its economy was opened up, it became more vulnerable to the current global economic and financial crisis (SARW, 2009; Ndulo et al, 2009). The country's dependency on copper as the major export commodity made it vulnerable to price fluctuations on the London Metal Exchange. As a result of the economic crisis, copper prices that had soared to US\$ 8985 per tonne in July of 2008 slumped to US\$ 2811 per tonne by the end of the year (Green, 2009; Ndulo et al, 2009, Musokotwane, 2009). The fluctuations in the demand and price of copper on global markets had major implications for the country's socio-economic development and changed the livelihoods of women and men especially those in the mining communities that "rely almost exclusively on mining and subsistence agriculture to a limited extent (ILO Global Job Crisis Observatory, 2009).

In Zambia, the crisis manifested through interrelated phenomena such as the drastic fall in the price of copper; decline in foreign direct investments; decline in tourism; increased food prices, and the devaluation of the country's local currency-Kwacha (Ndulo et al, 2009; Brulliard, 2009). In response to the negative effects of the crisis on business enterprises on the Copperbelt, the financial institutions in the region tightened their lending standards which made it more difficult to access credit (Musokotwane, 2009; IMF, 2010). For example the "average commercial banks lending rate" increased from 26.8 percent in the last quarter of 2008 to 29.9 percent in the last quarter of 2009 making it more difficult for poor women and men to access credit for their small scale enterprises in the Copperbelt (Ibid, p.6). Although the fall of copper prices was the main force driving the collapse of the mining sector, the decline in the demand and price of other minerals extracted from artisanal/small scale mines also contributed to bringing down the rest of the mining industry in Zambia's Copperbelt.

⁵ Artisanal mining is used to denote all small-scale as well as medium and large-scale mining that may be illegal or legal, formal or informal. Artisanal mining may be better characterized by a lack of long-term mine planning and use of rudimentary techniques (Hinton et al., 2003).

⁶ http://www.zda.org.zm/186-economic-empowerment

Implications of the economic crisis on the formal and informal sectors

The economic crisis that is affecting the livelihoods of miners and workers involved with formal and informal sectors in the Copperbelt region of Zambia has long term effects that threaten to intensify poverty, unemployment and gender inequality. Although copper prices are picking up and copper production has increased from 575,000 metric tonnes in 2008 to 662,000 metric tonnes in 2009, the negative and long term effects of the crisis on the livelihoods of poor women and men in the mining regions of Zambia will continue to unfold. While the formal mining sector, largely relying on male labor force was hit first and harder than other sectors of Zambia's economy, women, who were largely employed in the informal sector around the mines, were severely affected as the crisis deepened and spread beyond the mining sector. When male employment is hit hard by recessions, women absorb the impact to a larger extent than men since their productive and reproductive burdens are both increased. Due to gender inequalities within households and communities and to cuts in social services, when men lose their source of income as was the case with the miners in the Copperbelt, women take on additional household and community responsibilities to make up for the lost income previously provided by male wages.

Labor patterns in the mining regions of Zambia changed as the formal workers who were laid off from the mines flocked to the informal sector? There was a strong contraction in the demand for informal services and labor resulting from the closing and/or reduced operation of the mines, which were the backbone of the regional economy. In addition to a negative economic environment, women in the informal sector faced the competition from male workers laid off from the formal sector. Dramatic cuts in the public health sector budget (25.3 percent) resulted from the fall in government revenue and contributions from donor agencies. The care provisioning role shifted from the government and private sector (mining companies) to poor women and girls who had to shoulder this responsibility, in the context of increased poverty and vulnerability. Without proper medical and social services, women and girls had to provide care for relatives living with HIV/AIDS in a region that has one of the highest HIV/AIDS prevalence rates in the country. This additional unpaid household and community female role brought by the cuts in social services further restricts the ability of women to seek income. Facing reduced incomes unemployment and harsher conditions in the context of recession, women have no choice but to engage in risky coping strategies that have long term implications for their own and families' well-being as we will present.

By 2009 the sector remained uncertain of its ability to cope as the crisis deepened in the mining regions, despite the recovery of over 1500 of the 8500 formal mining jobs that were initially lost at the onset of the crisis (Musokotwane, 2009). While these figures reveal the magnitude of the crisis affecting the Copperbelt, they don't present the real number of workers laid off, since data was limited to mine workers who were members of the Mine Workers Union of Zambia (MUZ), excluding informal sector and non-unionized workers employed by private mine contractors and suppliers of goods and services, many of whom were also laid off when contracts with the mines were suspended on short notice (Ndulo et al, 2009). While terminal benefits were offered to some of the laid off mine workers, most of the withheld benefits were used to pay off the outstanding balance many miners had borrowed from banks and non-financial institutions (Ibid). The crisis threatened to increase the lending cost not only to miners but to households and small and medium enterprises that had boomed within the mining communities (Ibid, p.8). The limits and inefficiencies of the national social protection system made it even more difficult for the laid-off miners and their dependants to cope with unemployment given that many households were already economically disadvantaged; hence the crisis threatened to derail the country's development objectives as described in the Fifth National Development Plan (FNDP) as well as the MDG achievements (Dejardin and Owen, 2009, p.2; Ndulo et al, 2009).

In response to the massive retrenchments in the formal mining industry, laid-off miners flooded the informal mining sector and took on alternative livelihoods as street vendors, an occupation with no steady income or benefits (Ibid). Agriculture could not offer alternative livelihoods for retrenched miners, who were "ill prepared and ill-equipped as they had neither the skills nor the start up resources for this" (Brulliard, 2009). Massive retrenchments affected the livelihood of miners and their families and slowed down the economic activities in other sectors in the Copperbelt and in neighboring provinces.

⁷ In addition to artisanal mining, the informal sector includes activities such as small and petty trade, services like porters, cleaning, laundry, local grocery shops, brothels and restaurants.

For instance, companies such as the electric power plant that provided electricity mainly to the mines reduced its power supply by 15 percent after the decreased mining activity in the province, which resulted in additional job losses. Similarly, tourism and retail business that depended on the mining industry and provide employment to poor women also reduced their operations as a consequence of the wider impact of the global economic crisis in the region (SARW, 2009). According to the South Africa Resource Watch (2009: 85) "About 5 percent of the population is expected to be affected by the decline in the mining sector over the short term (either as mining workers, workers in adjacent industries, or dependent family members) due to the general contraction of the economy associated with reduced spending."

The changes in employment are expected to continue unfolding through 2015 with sector output and employment still on the down ward spiral of 32 and 38 percent respectively during 2009 (Ibid). The severity of the crisis on the livelihoods of poor women and men in the Copperbelt was compounded by the fact that the province was ranked second with a 40 percent rate⁸ of female unemployment in 2006 by the Central Statistical office in Zambia. The small scale mines that made profits during the copper boom lost business when the crisis hit the copper mines; they had to down size operations and faced an influx of laid off miners from the traditional mining industry who competed with, and displaced the informal mine workers, many of whom were poor women who could not find employment in the traditional formal mining industry (ILO Global Job Crisis Observatory, 2009; Bank of Zambia, 2009). In addition to some women losing their jobs in the mines, most women operating small scale private enterprises such as local restaurants, bars and local retail shops around the mines, experienced a fall in income when their customers lost their jobs during the downsizing and closure of mines. Similarly, the tourist industry that boomed alongside the mining industry was also severely impacted by the effect of the crisis. For example, there was a 15 percent decline in the number of in-coming tourists at several of the country's airports and a decline of 23 percent in-tourists visiting national parks (Musokotwane 2009). Consequently, the decline affected lodging and related services, where guest house occupancy rates dropped from 100 percent to 20 percent resulting into the loss of employment, mostly female employment since the tourist industry employs more women than men (Kryticous, 2009; Moyo 2009, p.6).

Labor statistics on the impact of the crisis have focused mostly on the formal sector—given that copper mining was the backbone of the Copperbelt province. The impact of the crisis on the informal sector remains hidden, given the invisibility of this sector in the national economy. Some testimonies illustrate the effect of the crisis on the informal economy; for instance Lizzy Sifaya, 50, owner of a cleaning company with contracts at many of the mines, said she had to lay off nearly 80 percent of her 350 employees as mines cut costs. One large mine, she said, told her to forget cleaning the offices and "focus only on the toilets." One informal sector worker lamented: "a crisis measured in unsold tomatoes at the market, empty stomachs...the town is fully dependent on the mine"; another woman who lamented that: "laid-off miners no longer buy my sugary fritters, the landlord was about to kick me out and I have six mouths to feed" (The Zambian Chronicle, March 26 2009). Since mining communities depend on mining industries and subsistence agricultural is too limited, they are highly vulnerable to any change in the industry such as contraction in mining activities or mine closures (ILO Global Job Crisis Observatory, 2009).

Traditional gender roles in mining communities portray men as providers and breadwinners for their dependants while women bear the domestic or reproductive responsibilities⁹. As result of pre-determined gender and social norms, women's work in the formal mines has been limited to work above ground where they provide nursing services to injured miners, as well as food and water. While female labor has a limited participation in large scale (formal) mining activities, women are active workers in artisanal/small scale (informal) mining ¹⁰.

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⁸ http://www.zamstats.gov.zm/lcm.php

⁹ Gender," refers to the socially constructed roles and responsibilities connected to being male or female in a particular society. The way a particular society is organized impacts on how women and men relate to each other, are perceived and what roles and responsibilities are assigned to them. The experience of being gendered thus differs from one society and context to another (Ranchod, 2001).

¹⁰ Artisanal mining is used to denote all small-scale as well as medium and large scale mining that may be illegal or legal, formal or informal. Artisanal mining may be better characterized by a lack of long-term mine planning and use of rudimentary techniques (Hinton et al, 2003)

In regions where economic alternatives are limited, women depend on these activities to provide for their families (Hinton et al, 2003b). In these informal mines women are directly involved in underground mining activities and in retail activities of mineral products. In the absence of a regulatory framework for informal mining, women often spend more time working than men and in harsher conditions, receiving lower and irregular wages that depend on their ability to deliver minerals and gem stones; these working conditions are well known to be unpredictable and highly exploitative, where sometimes earning a wage takes up entire days¹¹ (Hinton et al, 2003b; Mercier, 2008). In addition to their extraction and processing jobs in the mines to provide for their families, women play a broader role for their communities by providing goods and services in local retail shops stores they own or working in local restaurants around the mines. Women also own and operate bars and provide general assistance in the mining areas (Hinton et al, 2003b; Mercier, 2008; CASM: Gender in ASM¹²). Women and young girls also "often work in the sex trade" in mining areas, catering to men who, in search of work have migrated alone leaving their families behind (Hinton et al, 2003b).

In addition to productive and social reproductive roles, women continue to juggle their household reproductive responsibilities. Hinton et al (2003b) rightly address the fact that in addition to their mining responsibilities, women miners have supported the establishment of sustainable communities by upholding their domestic responsibilities at home even when it means undertaking extra unpaid work to compensate for the cuts in social services —a burden that male miners don't take. Evidence also suggests that unlike the income earned by male miners, all income earned by female miners is used to improve their livelihoods, for instance to put children to school, take them to the hospital and provide food for the family (Ibid). It is important to remember that women involvement in the formal sector is deterred by several factors: in addition to the reproductive/productive roles competing for women's time, and social values defining what is appropriate or not for women to do outside the household, other important factors to consider are women lesser access to formal education and the higher level of technology used in formal mining, which tend to displace women with low level of education (Arispe, 1977). In this regard, the employment of women in the informal mining sector, which is more artisanal reflects the vulnerability of female labor that as non-skilled has to accept more exploitative employment.

Implications of the economic crisis on public social services (health and education)

The mining industry provided job security to thousands of workers in the Copperbelt and offered them housing, education and medical benefits (ILO Global Job Crisis Observatory, 2009). The benefits tied to these mining jobs were lost with the mine closures and retrenchments of miners. In the absence of cash compensation, safety nets or public unemployment insurance, poor women and men could not find alternative livelihoods in a region that is largely dependent on mining and has a "poorly developed economic base" (Ibid, p.2). As a former mine employee reports:

"Things are really bad; in most of these towns, including Luanshya, the mine hospitals and clinics were completely free for miners and even for surrounding community members. Now, it is mandatory that we all pay 25 percent of the medical bills, so people are failing to go to the hospital because they simply have no money to pay, and we may see a lot of deaths over the next few months if the situation is left unchecked."

(The Integrated Regional Information Networks/IRIN 2009, February 20).

Despite the efforts of the Zambian government to cushion the impacts of the crisis, shrinking fiscal revenues (6.5 percent decline by the end of 2009) presented obstacles that challenged these efforts (Musokotwane, 2009). The fall in tax revenues from 19.2 percent in 2000 to a projected 15.2 percent in 2009 reduced expenditures in governmental infrastructure and social protection investments (Ibid, p.10). The situation was worsened by the limited coverage of basic social infrastructure and the inefficient social protection system in the province (Dejardin and Owen, 2009). The uneven distribution of the work load between men and women as well as girls during the previous recessions revealed that poor women and girls "provide the safety net of last resort when all else fails" (Jain and Elson, 2010, p. 9; Falth and Blackden, 2009, p.2). During recessions, social services education and sanitation provided by the state, health centers, early childhood development centers, provided by the public and private sectors are shifted to households and communities, where women and girls subsidize these services through their unpaid care work (Falth and Blackden, 2009; Antonopoulos, 2009b).

12 http://www.artisanalmining.org/index.cfm?page=page_disp&pid=4635

¹¹ http://www.artisanalmining.org/index.cfm?page=page_disp&pid=4635

Evidence shows that "the time and energy expenditure on unpaid care tasks is staggering" when it comes to providing care to people living with HIV/AIDS by poor households, "who already spend much of their day earning a subsistence living" (Ibid). Just to have a clearer idea of what is the magnitude of this unpaid care burden, let's review what it means for poor women to take care of HIV/AIDS patients in their rustic home conditions:

"Caring for an AIDS patient can increase the workload of a family caretaker by one third. This is a burden in any family but particularly onerous for the poor, who already spend much of their day earning a subsistence living. A rural woman interviewed in Southern Africa estimated that it took 24 buckets of water a day, fetched by hand, to care for a family member who was dying of AIDS—water to wash the clothes, the sheets and the patient after regular bouts of diarrhea" (UNAIDS, UNFPA and UNIFEM 2004 report 'Women and HIV/AIDS: Confronting the Crisis' p.32).

There is already a shortage of medical supplies and a lack of well trained healthcare personnel. Poor women and men in the Copperbelt cannot pay the new mandatory 25 percent of the medical bills charged by mine hospitals and clinics and therefore do not seek medical assistance. This will certainly accentuate health problems in the area and increase mortality, which is a violation of the people's right to health. This situation will deter the government from achieving the MDG target on health by 2015 and reflect the government's failure to comply with its obligations to provide access to health care facilities, goods and services (including drugs and trained health workers), especially for the people whose livelihoods are vulnerable to the deteriorating socio-economic conditions resulting from the looming crisis. As party to the ICESCR, the Zambian government is under the obligation to *respect, protect and fulfill* at least the "minimum core" of the right to health which includes access for all, to essential (Committee on ICESCR, General Comment 14 on the Right to Health)¹³.

As Falth and Blackden (2009) have cautioned, further cuts in public social service expenditures, especially in health and child care that are critical to the achievement of MDGs and the commitments to the Beijing Platform for Action, have severe implications: According to the Ministry of Health and National AIDS Council (2010), Zambia ranks seventh among the countries experiencing the effects of a mature and generalized hyper-endemic, and 14.3 percent of the country's estimated 12.9 million people were reported to be infected with HIV in 2009. Zambia Demographic Health Survey (2007) also reports that 45 percent of the children in the country are stunted. Government's inability to provide protective gear such as gloves, masks, disinfectants and basic health care training for the care givers that provide nursing services for people living with HIV/AIDS is also a violation of the care giver's right to a healthy work environment, a situation that has the potential to further spread the disease. The 2010 national budget allocations for social protection for poor people in Zambia were not enough to cover its target of reaching 20 percent of the people living below the poverty line. This unmet public obligation means this vulnerable group will rely on traditional private support systems provided by family and community, which are disproportionately composed of women, usually the elderly, and girls.

The social protection system in Zambia fails to provide coverage for those in need. Social protection funds have been limited to providing pension funds to cater for early retirement from the civil service. It does not cover informal workers (neither formal workers in the private sector) and therefore it will not reach its target of reaching 20 percent of the people below the poverty line. The 19 percent increase in social protection provided for by the 2010 budget falls short of what is needed and has been mostly allocated as 'government's employer contribution to the fund' (Musokotwane, 2009). The magnitude of the crisis is reflected in the fact that local business owners in the mining communities facing recession could no longer afford medical care or school tuition for their children (The Zambian Chronicle, 2009, March 26; Musokotwane, 2009).

Economic Crisis, gender and cumulative vulnerabilities

The analysis of previous economic crises that devastated Eastern Europe, Latin America, and South Asia in the 1990s reveals that crises disrupt economic progress made by the global fight against poverty and that "women bear the brunt of the crisis because of the stereotype of the male bread winner that prevails all over the world across cultural divides" make women economic and reproductive roles invisible (Fukuda—Parr, 2009). While men and women will intensively experience the effects of the current crisis, women and girls will be impacted differently during the current crisis than men and boys will (Falth and Abaddi, 2009; Dejardin and Owens, 2009).

¹³ Committee on Economic, Social and Cultural Rights, (CESCR) General Comment 3, para. 10.

Evidence from previous economic crises suggests that due to underlying institutional structures and social norms that define unequal roles, entitlements and responsibilities for women and for men in society, women "have historically borne the brunt of economic adjustment during crises" (UNIFEM, 2009, p.6). Due to the absence of social protection systems in many of the Asian countries that were hit by the Asian financial crisis of 1997, households resorted to "traditional private support systems provided by family and community" (Lee and Rhee 2000; Jones et al 2000 in Dejardin and Owens, 2009, p.7) which had negative effects on poor families and women's paid work activities. For example, more than 40 percent of households in Asia stated that women "were obliged to undertake more household work and income generating activities" (Focus on Global South and Save the Children, 2001 in Dejardin and Owens, 2009, p.7). In times of crisis, members of poor households have to work more while earning less, comprise consumption and increase domestic and community reproductive work to compensate for their lesser access to social services and reduced income. These additional demands for labor are unequally distributed within the households. Gender roles and ideologies determine a higher elasticity in female labor towards productive and reproductive work while male labor remains less elastic, reluctant to engage in reproductive work when there is increasing pressure on female labor. In other words, even when men loss their jobs and women have to add productive to their reproductive roles, most men will not take on reproductive roles to help women who are facing now a triple role: productive, domestic reproductive and social reproductive.

This asymmetric internal distribution of the additional burdens poor household take in times of crisis, explains the cumulative vulnerabilities of women. As highlighted by Fukuda-Parr (2009), historically women are "the poor and disempowered whose lives are most thrown off balance and are the slowest to recover". Since women's income is fully used to support the well being of children and members of the household, the negative effect of the crisis on women's income and health have short and long-term effects on poverty reduction initiatives. Therefore, understanding the differentiated impacts of the crisis on men and women is critical for the development of policy responses that can truly promote sustainable and equitable economic recovery process that offers benefits to poor women and men. Poor families in urban and peri-urban areas of developing countries tend to respond to poverty and crisis by diversifying their activities and making full use of family labor. The importance of male wages from the formal sector to support the diversification of economic activities within poor households and increase the resilience of livelihoods has been highlighted by Gonzalez De la Rocha (2001) for the case of Mexico in what she referred as "the resources of poverty" model, addressing the agency of poor families and their capacity to adapt. However after the structural adjustment programs of the 1980s eroded the livelihoods of the poor at different fronts at the same time -for instance eliminating the male wages from formal sector while cutting social services, the domino effect of male unemployment is revealed, affecting women productive and reproductive roles and exacerbating gender disparities and the vulnerabilities of these poor families.

What we see for the case of Zambia is that in order to compensate for the lost male wages, women and girls have engaged in different activities in search for income and increased their unpaid social reproductive work at home; those women already engaged in productive activities had to take on additional domestic and reproductive roles within the household, to compensate for reduced social services. The burden of unpaid domestic and social reproductive work during economic recessions is compounded by the reduction in public social services, which puts even more pressure on individual households. Women have to combine multiple roles and responsibilities, such as caring for children, elderly and sick family members, earning income for their families and take care of the domestic tasks. It is therefore critical for policy makers to re-examine policies conducive to the "recognition, reduction and redistribution" of unpaid care work between women and girls, men and boys (Falth and Blackden, 2009, P.3; Falth and Abaddi, 2009; Jain and Elson, 2010; Elson 2009) The vulnerability of women as workers increases with their stronger participation in the informal economy –highly exploitative, and the reluctance to recognize their unpaid work, in a context of existing gender discrimination and inequalities (Antonopoulos and Toay 2009, P.4)¹⁴.

How are households coping with the changes brought by the crisis and how have gender relations changed after the crisis?

It is important to understand that poor households have shown agency in copying with this crisis, even though the impact of the crisis have been different for men and for women.

¹⁴ ILO refers to vulnerable employment as people employed under insecure circumstances, without access to benefits or social protection programs, who are more at risk to experience the impact of economic crises

However, there is a dangerous limit faced by men and women, when their copying strategies are consuming the social and human capital these families have, which have strong implications for national and global development. Gonzalez De la Rocha (2000) has shown for Mexico that there is a point where "the resources of poverty" transforms into the "poverty of resources", where even the mechanisms of reciprocity and solidarity that are so important for the resilience of the livelihoods of the poor cannot be maintained due to severe restrictions imposed on their time and income. For the case of Zambia, households facing the desperate situation described in this article, had to resorts to risky coping mechanisms that increase their vulnerability, reflecting and accentuating gender inequalities and that compromise the social and human capital of families in the Copperbelt region of Zambia and long-term development goals. These coping mechanisms include: (a) prostitution, (b) early marriage of adolescents (boys and girls) to much older adults, (c) increased use of child labor resulting in school desertion; and (d) reduction in the number and quality of daily meals which affect the health of children and women due to cultural norms that favor male nutrition. The study shows how poor women are more vulnerable than men and disproportionately bear the negative effects of the crisis due to pre-existing inequalities that are maintained by the social norms and institutional structures of the country.

Child Labor

While more attention needs to be paid to the effects of the economic crisis on women and girls, we should not ignore the challenges faced by boys during the crisis. Since gender equality also includes them, it is necessary to examine the scenario for boys in the mining province. The Copperbelt region had exhibited the highest level of economic activity and as such has been one of the two regions in Zambia where less than 1 in 10 children participate in economic activities (Understanding Children's Work-Zambia Country Report, 2009). Unfortunately, this situation has radically changed as reported by The Children's Work Project jointly implemented by ILO, UNICEF and World Bank. Children have been working in the small scale mines and supplemented dwindling family incomes during the recession. Evidence suggests that girls and boys from poor and underprivileged communities have engaged in small-scale mining activities in order to contribute to declining family incomes (ILO, 1999; Dejardin and Owens, 2009; Hentschel et al, 2002). Coping strategies that have detrimental long term effects on community and national wellbeing are becoming prevalent. Boys were "pulled out of school" and their education substituted with work in the small scale informal mines where they were involved in "all aspects of the production chain as well as in the crushing of stones in search for other minerals such as zinc and lead" (ILO Global Job Crisis Observatory, 2009, p.2 & 3). The report also noted that seven year old boys were involved in subsistence agricultural activities and also supported the work of miners, for instance cooking and selling food, providing water for miners or carrying heavy loads in the mines.

Their work stretched long hours during the night and sometimes involved participating in dangerous mining activities (Ibid). Most of these children were orphans whose parents had died of HIV/AIDS and lived with guardians in poor and remote areas with minimal social infrastructural development. While both girls and boys face malnutrition and health risks in the small scale mining environments, girls face the additional risk of sexual exploitation due to the virginity myth associated with HIV/AIDS transmission (Hinton et al, 2003b). It is believed that HIV could be cured or prevented by having intercourse with a virgin. Women also become vulnerable to exploitative sexual activities when incomes decline due to the economic crisis. Green (2009) reported how as textile factories closed down in Thailand, "sex traffickers" recruited women who were desperate for income as sex workers in the global West (2009). Therefore, the lives of women and their children have become more vulnerable than they were prior to the crisis (Ibid, p.6). Prior to the 2008 economic crisis, a lot of effort was invested to increase enrollment and retention rates for girls in school. However, any progress made to improve children education and gender equal access to education is being reversed by this trend to increasingly rely on child labor. It is probable that most children who had to interrupt their schooling may never have again the opportunity to return to complete their studies; they will instead continue to work in the informal sector – without access to social protection benefits, facing unsafe and exploitative working environments. By precluding children to access education, the vicious circle of poverty and exclusion is being reproduced for the young generations of Zambians.

Early Child Marriages and Increased Commercial Sex Work

ILO reports¹⁵ that male and female adolescents in Zambia's mining communities resorted at an early age to marry "much older" partners to gain some economic security during the recession.

¹⁵ http://www.ilo.org/public/english/support/lib/financialcrisis/featurestories/story26.htm

This risky coping strategy results in a higher prevalence of teen pregnancies, higher infant and mother mortality and sexually transmitted diseases, all which threatens to reverse MDG achievements (in particular MDGs 2, 3 and 6). Gendered power relations constrain women to negotiate for safe sex rendering them more vulnerable to contracting HIV/AIDS as in the case of Zambia where young women are "five to six times more likely to be infected than their brothers" (IPPF and UNPFA, nd). Furthermore, increased prostitution rates among young girls put them at high risk of contracting sexually transmitted diseases due to their inability to negotiate for protected sex. The risk of contracting HIV is compounded by the fact that the country's national prevalence rate has remained high where young women (25 to 34 years old) face a much higher risk than men of contracting HIV at prevalence rates of 12.7 and 3.8 percent respectively¹⁶. Increased prostitution among youth and the spread of HIV will pressure the already weak health care system; it also threatens to increase in the long-term the demand for unpaid care work for women and girls who will bear the responsibility of caring for the people who will get infected and sick.

Some women in the Copperbelt rely on its access to the truck route that transports minerals from Zambia through the DRC to engage in commercial sex activities with male truck drivers. Such desperate income generating mechanisms have long-term effects as shown by the HIV rates of the Copperbelt province, which are among the highest in the country.

Judith Mubanga, 26, old resorted to commercial sex work in the last quarter of 2008 after her guardian uncle lost his job at Bwana Mkubwa Mine in Ndola and could no longer support her financially. Out of desperation, women such as Mubanga were willing to charge a higher price for unprotected sex in order to provide for their dependants. Mubanga said that: "when business is good, I make over 200,000 kwacha (about US \$36) in one night, but when things are not good I can knock off with something like 20,000 kwacha, about US \$3.60" (IRIN 2009, February 26)

Similarly, experienced sex worker Zulu Belinda, 30, explained that she was willing to charge a double price for unprotected sex in order to earn more money to provide food for her children and dependants. She said: "For me now it only makes sense if I meet a client who wants 'live wire' (unprotected sex), for which I charge double the amount" (Ibid).

Women's willingness to engage in unprotected sex for double the price reveals their desperation and their vulnerability, which prevents them from negotiating for safe sex. While the commercial sex activity provides income in the short term, social, human and financial cost implications of such activities exceed in the long term the immediate gains.

Mining regions such as Ndola, Kitwe and Chingola have recorded increased sex worker activity since November 2008 (first quarter of the crisis), and these regions bear the highest HIV prevalence rates at 26.6 percent, much over the national average of 15 percent (Ibid). The highest prevalence of HIV rates in mining regions as compared to other parts of the country is a dramatic indicator of how badly the crisis has affected families, especially women. Urgen measures should be adopted to make sure that the economic crisis does not undermine the progress achieved towards the Millennium Development goals, including poverty reduction, gender equality and women's empowerment. Cuts in health care spending in the 2010 fiscal budget translated into a shortage of drugs, an overworked and poorly resourced healthcare system in the midst of uncertainty about the economic recovery, all which raise the question of who will take care of the overwhelming cost of taking care of new HIV/AIDS infections. With limited or no help from the government and the private sector, the burden falls on women and girls who provide care at home and volunteer services in community, which leaves them with little or no time to pursue income they desperately need.

Comprised consumption and malnutrition

The reduction in the quality and quantity of food intake bears the potential danger of raising the level of malnutrition among children. WFP Country Director Pablo Recalde called attention about the negative effects of the economic crisis on children below the age of five, whose malnutrition levels had increased from 15 to 20 percent in the urban areas including the Copperbelt province, raising attention for the need of care for malnourished children (The Zambian Chronicle, 2009, March 26).

¹⁶ http://www.pepfar.gov/press/countries/profiles/116348.htm

While some families were forced to reduce their meals from three to one, others who could only afford one meal per day were left with no option but to starve.

Lucas Ngoma, 45, who was formerly employed as an electrician with the mines commented that: "feeding a family of eight has come to mean bartering a DVD player for a sack of dried fish. We used to eat three meals a day. Now we do one. We will be rationing. One fish can be shared" (Brulliard, The Zambian Chronicle 2009, March 26)

Conclusion and Policy Recommendations

We have presented evidence of the devastating effects of the global crisis on the livelihoods of men and women in the Copperbelt of Zambia: both for those involved in the formal mining sector and for those involved in informal mining services and commerce that are strongly tied to the formal sector. This paper has shown how the impact of the crisis has changed the patterns of employment among men and women, modifying their traditional assigned gender roles while eroding their livelihoods and making their struggle for survival more difficult. The case study presented confirms for the case of Zambia a global trend showing how recessions affect women, men, girls, and boys differently while they intensify poverty and pre-existing inequalities. It is imperative then, to make policy makers aware of the differential impact recession have on men and women and of the intimate links between the formal and informal sectors; this is a first step toward designing policies that can correct inequalities and vulnerabilities that have been exacerbated by the crisis.

- Relying on the mining sector (that generates over 80 percent of Zambia's export earnings) has shown to be quite dangerous, due to the vulnerability of this sector to global markets instability and to global recessions. The ongoing economic crisis can offer an opportunity to support the economic diversification of the country in general and in particular of the Copperbelt communities that depend mainly on mining. The shift from mining to agriculture and tourism is a viable option that could offer employment opportunities for large numbers of women and men and generate tax revenues for the national government. However, these initiatives should be engendered to make sure women have equal opportunities for cropping, employment, planning, credit, training and so on.
- The study confirms that when government cuts key social services such as health care, the burdens shifts to households and communities, where because of gender hierarchies and ideologies, women's unpaid domestic and social reproductive work is exacerbated as they have to care for sick relatives, especially but not only those living with HIV/AIDS. During the recession, poor women and girls disproportionately absorb the care functions previously provided for by public and private sectors. This health care burden is compounded by the fact that Zambia ranks seventh among the countries experiencing the effects of a mature and generalized hyper-endemic (Ministry of Health and National AIDS Council, 2010). It is important that Zambia's policy makers recognize the unpaid care work provided by women, reinforced through generations by existing social gender norms. This paper recommends for Zambia the *reduction* approach¹⁷ where policy makers incorporate the unpaid care work perspectives into their legislation by allocating more financial resources towards increasing healthcare personnel and physical infrastructural investments such as the construction of health and child care centers. Funds should also be allocated towards the improvement of rural infrastructure to foster economic diversification and to facilitate women and girl's time and energy saving as they perform their care giving role within the household and community.
- Policy makers need to adopt the use of gender- responsive budgets more frequently to lighten the burden of unpaid care work. Gender responsive budgets favors the allocation of public funds that promote gender equality and women's empowerment and should be used especially in the health care sector. Gender responsive budgeting ensures that policies within the budgetary process benefit all members of the community and guards against gender biases and discrimination thereby promoting accountability to women's rights and transparency during the provision of social services. It is also recommended that policy makers adopt the use of time allocation surveys to inform planning and investment decisions after all, "what is not seen is not invested in or prioritized" (Falth and Blackden, 2009).

¹⁷UNDP address the unpaid care work through three inter-linked approaches: recognition, reduction and redistribution Falth, A. and Blackden, M. (2009)

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