

Gender differences in the Extractive Sector: Evidence from Ghana

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Background

- **Women Economic Empowerment** refers to the capacity of women to
 - participate in, contribute to and benefit from growth processes in ways
 - that recognize the value of their contributions, respect their dignity and make it possible to negotiate a fairer distribution of the benefits of growth.
 - at the national, local, family and household level

Background

- WEE can be measured and assessed on the basis of but not restricted to the following:
- Education and skills (endowment): as a vehicle for entry into and effective participation in the labor market
- Participation in the labor market – the level (labor force participation rate)and the type (employed or unemployed)
- Quality of participation: Employment – type/status and where they are engaged
- Earnings

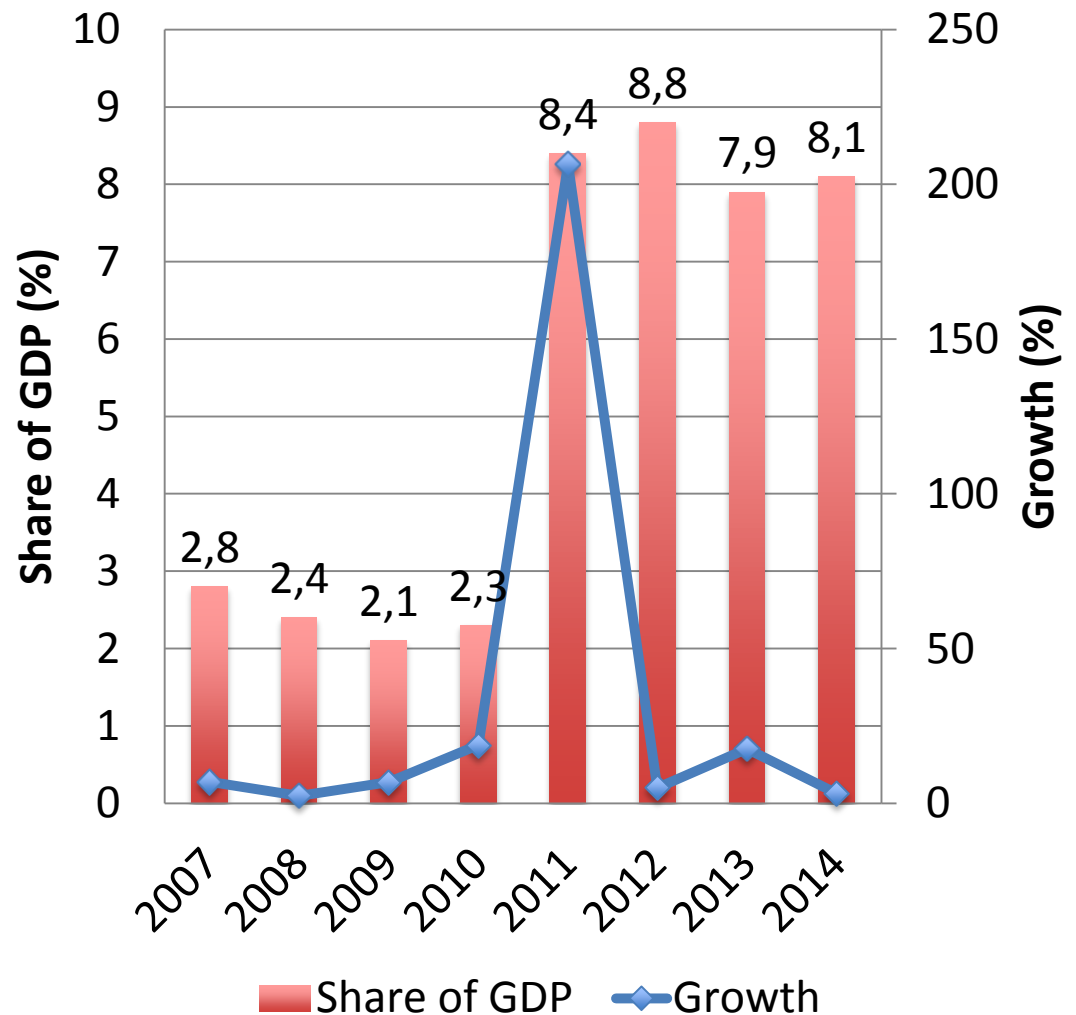
Issues and motivation

- Although economic growth can be seen as a driver to enhancing WEE,
 - it depends on the source of the growth and how involved women are in the economic growth process.
- In Ghana, the extractive subsector of the industrial sector has been one of the major drivers of the country's growth performance

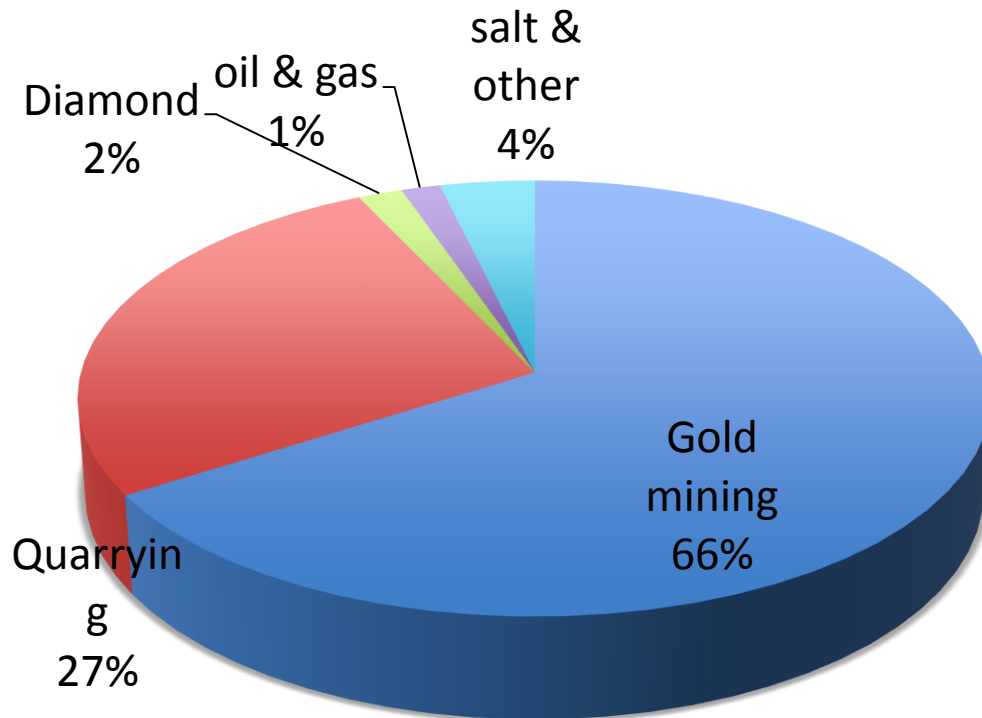
Growth of Extractive Sector

- The extractive sector grew on average by 33.4% against 5.4% overall GDP growth over 2007-2014
- Start of commercial oil production in 2011 pushed extractive growth to 207% raising its GDP share from 2.3% in 2010 to 8.4% in 2011

Growth and share of extractives in GDP(%)



Different extractive activities



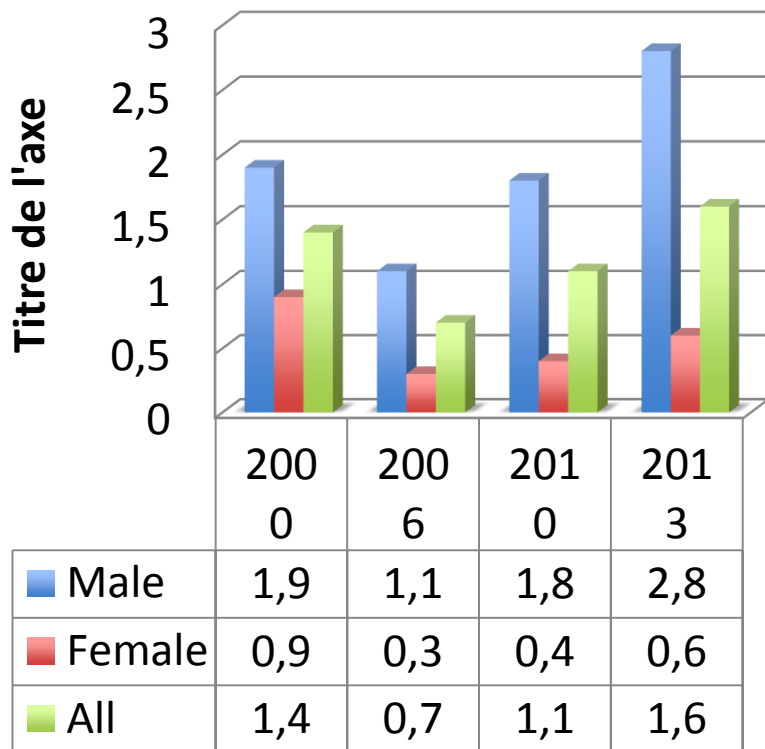
- Mining is the dominant extractive activity accounting for about two-thirds of total extractive activity
- Quarrying account for a little over a quarter of extractive activity
- Diamond mining and oil & gas extraction account for 2% each

Gender differences in extractive employment

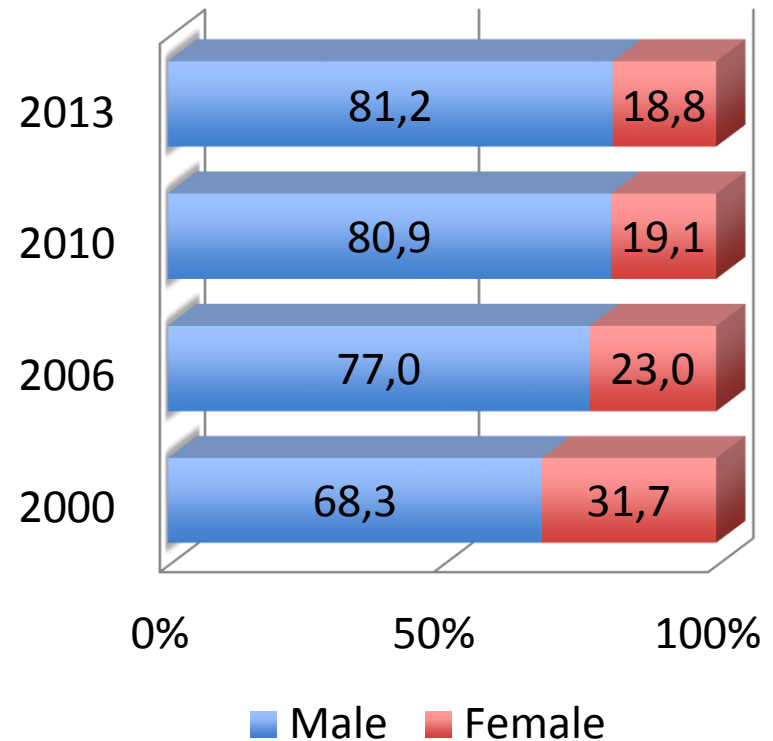
- Extractive activities are less labor intensives accounting for 1.6% of **total employment** (or about 250,000) in 2013
- Very low female representation (1.0%) compared to males (2.8%) than 1% of females in 2013
- Gender composition is thus skewed in favor of men and declining (evidence on next slide)

Gender differences in Employment in Extractives, 2000-2013

Male-female representation in Extractives (%)



Sex Composition of employment in extractives (%)



Different extractive activities, 2013

- Female composition is highest in quarrying where technology usage and education requirement is very low
- Petroleum and gas has only 8% women composition with mining reporting 14%

Extractives	Male	Female
Mining	85.9	14.1
Gold	85.6	14.4
Diamond	87.5	12.5
Quarrying	55.7	44.3
Petroleum & Gas	92.3	7.7
Crude petroleum	75.0	25.0
Natural gas	100.0	0.0
Support activities	100.0	0.0
Others		
Salt extraction	80.0	20.0

Why lower women participation than men - Fieldwork

- Small scale mining is tedious and women cannot withstand the condition.
- 35.9% of men and 47.0% of women claims its dangerous for women to work in extractives
- Perception about masculinity of mining activity; As the adage say “barima beko Tarkwa” is a clear evidence
- 61.5% agrees that some tasks are physically demanding and must not be given to women
- 92.9% indicates that men are preferred in the hiring process to women in extractives

Why lower women participation than men - Fieldwork

- The “isolated” nature of mining sites (mostly out of town) tends to discourage particularly women from engaging in mining for a longer period.
- Engagement in mining competes with time for family which women find it difficult to cope
- Some discouraging comments about women involvement in mining as “work for men” is a factor

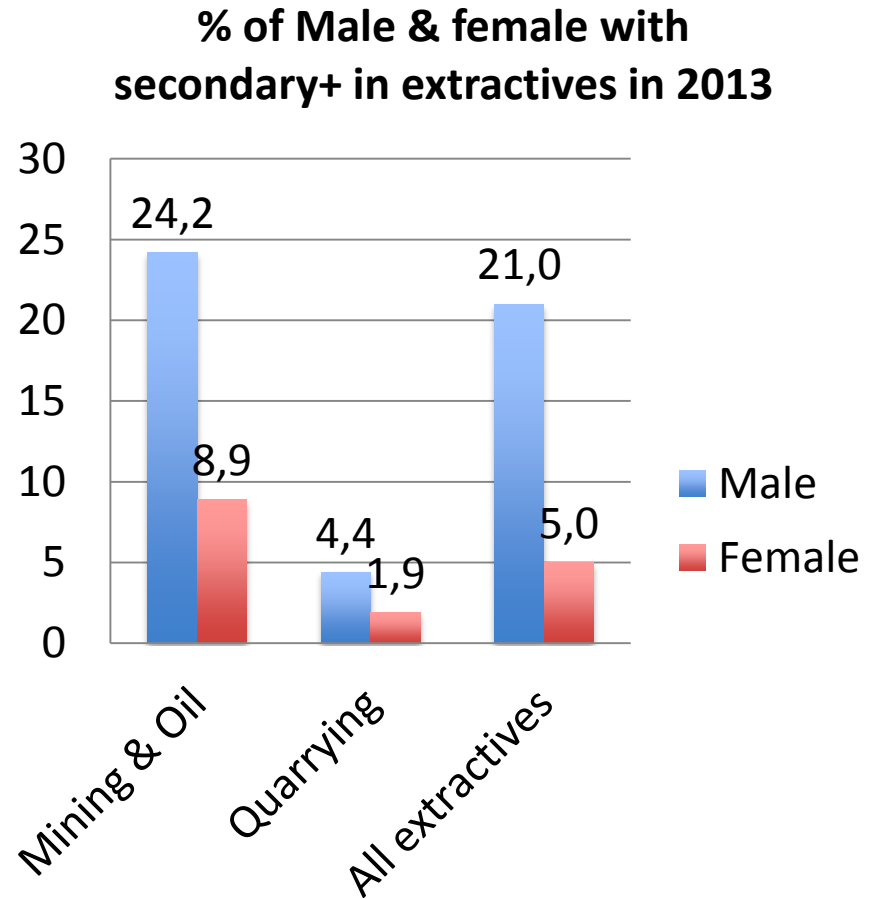
Job position in extractives

Status on the Job	Mining & Petroleum		Quarrying		All extractives	
	Male	Female	Male	Female	Male	Female
High Skilled	11.4	8.9	4.4	0.0	9.9	4.0
Semi-skilled	3.2	2.2	0.0	1.8	2.6	3.0
Production	41.3	28.9	22.1	20.4	37.4	24.0
Elementary	41.6	60.0	70.6	72.2	47.6	66.0
Other	2.6	0.0	2.9	5.6	2.6	3.0
Total	100.0	100.0	100.0	100.0	100.0	100.0

- ◆ Lower education of women than men
- ◆ Women are underrepresented in science, math & engineering
- ◆ Non-exposure of girls in school to prospects in mining related disciplines
- ◆ Cultural barrier play a part as women are often seen as better in the kitchen

Education of workforce in extractives

- Education of women in extractives is far lower than males
- It is worse in mining and petroleum extraction than quarrying
- This explains the lower job status of women than men



Segregation

- Segregation concerns the tendency for men and women to be engaged in different occupations across the entire spectrum of occupations.
- In spite of women underrepresentation in extractives, they are highly represented in elementary jobs (e.g. cleaners, cooks, labourers, refuse workers etc.);
- But are highly underrepresented in high skilled and better-remunerated jobs such as managers, supervisors, engineers;

Segregation

Index occupational segregation of extractives and the entire labour market

Segregation Index	2006		2013	
	Extractives Sector	All workers in the LM	Extractives Sector	All workers in the LM
Duncan dissimilarity index	0.414	0.183	0.258	0.212
Karmel and Maclachlan index	0.169	0.091	0.106	0.085
Size-standardized dissimilarity	0.513	0.401	0.426	0.314

Source: Computed by Authors from the GLSS V of 2005/06 and GLSS VI of 2012/13

- **Why segregation?**
 - Women are not allowed to get closer to the machine or the operating area because of the possibility of being in their menstrual period
 - Women are mostly confined to elementary activities such as cooking
 - Patriarchy and intimidating behavior of some men

Analysis of earnings differences

- We apply quantile decomposition to nationally representative household survey of 2013

$$\ln \bar{E}_i^m - \ln \bar{E}_i^w = (\bar{X}_i^m - \bar{X}_i^w) b_j^m + (b_j^m - b_j^w) \bar{X}_i^w$$

- Observed characteristics used include age, marital status, effort (i.e. hours of work), education, location, skills or job status
- Adopt Heckman two-stage correction method is used to correct potential selectivity bias.

Analysis of earnings differences

Table 5: Decomposition of gender differences of earnings in the Extractives WITH SELECTION CORRECTION using Quantile decomposition

Differences & Source	Quantile		
	0.25	0.5	0.75
Overall Difference	-1.0369***	-0.8182***	-0.9861***
<i>Source</i>			
Explained/Characteristics	-0.9263*** (-89.33%)	-0.8035*** (-98.20%)	-0.8436*** (85.55%)
<i>Education</i>	<i>-0.1791*** (-17.27%)</i>	<i>-0.1533** (-18.72%)</i>	<i>-0.1631*** (-16.54%)</i>
Unexplained/Coefficient/	0.1106 (10.67%)	-0.0147 (-1.80%)	-0.1425*** (14.45%)
<i>No. of Observations</i>			
Male	260	260	260
Female	73	73	73

***p<1% **p<5% *p<10%

Growth & Economic Opportunities for
Women: Policy Forum - Abidjan

Source: Estimated from GLSS VI of 2013

Analysis of earnings differences

- Gender differences in favour of men is quite strong at lower levels of earnings than mean and upper level in Ghana's extractives sector
- Evidence of discrimination exists at upper (75th quantile).
- Lower education and skills of women relative to men accounts for significant gender earnings differences in Ghana extractive sector.

Some qualitative explanation

- In the field survey, 80.3% finds men and women earn the same wages for similar job holdings
- BUT 49.4% claims major differences in roles assigned to male and female and differences in education explains differences in job status and earnings
- Cultural beliefs particularly among small-scale miners also prevent women from engaging in the actual extraction.
- Women used to carry the sand and do washing but the excavators have taken over that task

Policy Thoughts

- Promotion of women education
- More science education and role model issue
- Addressing cultural beliefs
- Flexibility in the work of mining and providing access to education closer to the mining site
- Regulation to prevent “hidden” intimidation.

Thanks for your attention