



Women's Empowerment and Entrepreneurship in the Transition to Low-Carbon Economies

Women's Empowerment in Development (WED) Lab Seminar Series





International Development Research Centre Centre de recherches pour le développement international





Panelists











Bipasha Baruah, University of Western Ontario (Facilitator) Françoise Nduwimana (Global Affairs Canada) Laurent Jodoin (Econoler)

Joanne Lebert (IMPACT) Patience Singo (IMPACT)





Seminar/Webinar Format



- Opening presentation by facilitator
- Audience Q&A

Break

- Expert panel discussion
- Audience Q&A

Participants on Zoom can email questions to: <u>kathleen.grantham@mcgill.ca</u>





Dr. Bipasha Baruah (Facilitator)



Professor and Canada Research Chair in Global Women's Issues





Women's Empowerment and Entrepreneurship in the Transition to Low-Carbon Economies



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Number of jobs created for every \$1 million invested



Where do you want Canada to invest?

*Blue Green Canada. (2012, November 22). More Bang For Our Buck: How Canada can create more jobs and less pollution.

OIL & GAS



INSTITUTE FOR THE STUDY OF INTERNATIONAL DEVELOPMEN INSTITUT D'ÉTUDE DU DÉVELOPPEMENT INTERNATIONA







Source: IRENA jobs database.

Note: Another 7600 jobs, not shown separately here, cannot readily be broken down by individual renewable energy technology.









IRENA Global Survey 2018





respondents to the **IRENA** Gender Survey



responses from individuals



responses from organisations



countries represented in the responses



Figure 1.1 Geographical distribution of survey respondents



Note: Baseline map data ©2018 Google, overlaid with data points from the survey.





Figure 1.2 Distribution of survey respondents by region

Percentages do not add up to 100 due to rounding.

Figure 2.2 Share of female full-time workforce in renewable energy and oil and gas



Sources: IRENA online gender survey, 2018; Rick *et al.* (2017).





Figure 2.5 Shares of women in STEM, non-STEM and administrative jobs

Source: IRENA online gender survey, 2018.

Notes: STEM = science, technology, engineering and mathematics.

The vertical line indicates the average share of women in renewable energy jobs among survey participants.







75% 40%

Shares of women and men who perceive that women face barriers.

69%

of survey participants were women



60% 29%

shares of men (left) and women (right) in sample who believe the genders are paid equally



Source: IRENA online gender survey, 2018.

Note: IGO = inter-governmental organisation; NGO = non-governmental organisation.

Figure 2.7 Gender composition of board of directors in the renewable energy sector

Figure 2.1 Female board members at 200 of the world's largest utilities, 2016





Publicly traded energy companies in Canada



Figure 2.4 Barriers to entry for women in modern renewable energy,

Source: IRENA online gender survey, 2018. Note: STEM = science, technology, engineering and mathematics.





Figure 3.2 Area of work of organisations responding to the energy access

Source: IRENA online gender survey, 2018.

Figure 3.1 Organisational size reported by respondents to the energy access survey



Source: IRENA online gender survey, 2018.







Figure 3.4 Regional distribution of responses on barriers to women's participation in the energy access context

Source: IRENA online gender survey, 2018.



Figure 2.9 Suggested measures in support of women in modern renewable energy, by respondents region

of respondents highlighted that access to training and skills development should be a top priority Figure ES.4 Measures to improve women's engagement in deploying renewables for energy access
Access to training and skills development programmes
71%
Integrating gender perspective in energy access programmes
62%
Enhancing access to financing for women
56%

 Mainstreaming gender in energy policies

 54%

 Awareness raising

 38%

 0%
 20%
 40%
 60%
 80%

Source: IRENA online gender survey, 2018.

Note: The respondents were asked to select three key measures to improve women's engagement in deploying renewables for energy access. The percentages represent the share of respondents who selected a specific measure as one of their top three.





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- Among 44% of households, an SHS also unlocked more time for people to work, and 24% of households use the energy generated directly in a business or other income-generating activity.
- Direct or indirect formal jobs are the tip of the iceberg of the DRE sector's employment impact. In emerging economies, the informal sector is a major driver of the economy. *In India, 88.2% of the employed population are informal workers, 82.7% in Kenya and 92.9% in Nigeria.*











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- Access to finance is another binding constraint women face in setting up SMEs.
- Mentoring programs enable women to overcome hesitations and barriers associated with traditional socio-cultural perceptions and stereotypes.





Factors inhibiting access to financing for women include lack of assets and collateral, limited awareness of financial schemes, lack of bankers' knowledge of RE and confidence in renewables and/or women-owned enterprises and confidence issues among rural women to conduct financial transactions.

There is a need for **inclusive financing channels** that are accessible by women-led enterprises.

Various solutions are emerging, including **dedicated credit lines**, **crowdfunding and local community organizations** and **cooperatives.** Despite some success, inadequate access to affordable financing remains a major impediment for women setting up small businesses in the energy access context.




Women's Entrepreneurship in RE: Key Findings





LACK OF SKILLS IS ALSO A KEY BARRIER. WITH A DEMAND FOR MORE THAN TWO-THIRDS OF ITS WORKFORCE SKILLED, THE DRE WORKFORCE IS FACING A SKILLS GAP THAT IS NO LONGER A FUTURE THREAT BUT A CHALLENGE TODAY.

SKILLS: **TECHNICAL** (INSTALLATION, O&M, PRODUCTS STANDARDS, QUALITY CONTROL) TO **BUSINESS-RELATED** (ACCOUNTING, BOOKKEEPING, PRODUCT DESIGN, PRICING, BUSINESS PLAN DESIGN).

В



MARKETING SKILLS

ARE ESPECIALLY

NEEDED FOR RE

TECHNOLOGIES

SUCH AS SHS AND

SOLAR LANTERNS

THAT ARE SOLD TO

HOUSEHOLDS.



NON-ENERGY-RELATED SKILLS, SUCH AS **LEADERSHIP TRAINING** AND **DIGITAL LITERACY**.



TRAINING THAT COMBINES FINANCE AND BUSINESS TRAINING IS MORE EFFECTIVE THAN EITHER FINANCE OR BUSINESS TRAINING ALONE.















• Entrepreneurship is **not a realistic livelihood strategy** for many women. Even wellintentioned and well-designed interventions may fail to convince them to become entrepreneurs.



ENVIROFIT







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- More countries in the Global South are transitioning toward developing welfare systems.











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- Efforts to promote entrepreneurship must be complemented with efforts to **expand social security and protection.**
- More countries in the Global South are transitioning toward developing welfare systems.
- Basic income schemes, cash transfer programs (conditional and unconditional) that enable women to make priority decisions for themselves and their dependents are being tested and expanded in African, Asian and Latin American countries.











Audience Q&A

Participants on Zoom can email questions to: kathleen.grantham@mcgill.ca





5 minute break





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1. Describe your experience working with/implementing gender and WEE programs, and the ways in which the imperative to transition to low-carbon (green) economies has affected your work. What are some of the challenges and opportunities green economies (and technologies) present for WEE programs?











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Women's Empowerment in Artisanal Cobalt Mining in the Democratic Republic of Congo

Joanne Lebert and Patience Singo IMPACT





Introducing: IMPACT

Formerly Partnership Africa Canada (PAC) - Established in 1986

MISSION

We transform how **natural resources** are managed in areas **where security and human rights are at risk**. We investigate and develop approaches for natural resources to improve security, development, and equality. We are an **independent non-profit**, collaborating **with local partners** for **lasting change**.

VISION

We envision a world where **resources contribute to equitable peace and development**, and where **communities are empowered** to decide how their natural resources are managed.







GrOW Research

- One of the most comprehensive research studies Africa
- 3 years of research
- Mixed methods including:

878 surveys from 7 artisanal mine sites across 3 countries and involving 3 commodities
60 focus groups with 400 women and men



Gender and Artisanal and Small-Scale Mining in Central and East Africa: Barriers and Benefits

By Doris Buss, Blair Rutherford, Jennifer Hinton and Jennifer Stewart (Carleton University); Joanne Lebert and Gisèle Eva Côté (Partnership Africa Canada); Abby Sebina-Zziwa, Richard Kibombo and Frederick Kisekka (Development Research and Policy Analysis Center)



GrOW Working Paper Series GWP-2017-02 – Research Contribution Paper

with support from McGill University and the International Development Research Centre (IDRC). Working papers are in draft form and distributed fo rposes of comment and discussion only. The observations and views expressed in this working paper are the sole responsibility of the author(s).





Artisanal Mining: What is it?

OFTEN CHARACTERIZED BY:

- Disorganized or informally organized
- Subsistence mining
- Rights often severely limited mostly unlicensed
- Harsh working and living conditions
- Low yields and low income
- Informality / 'illegality' = Vulnerability to predatory actors
 - armed groups, criminal networks, extortion, predatory lending, sexual violence, etc.
- Poverty driven AND poverty alleviating
- Often along side large-scale industrial mining





Artisanal and Small-Scale Mining: Key figures

40.5 million people working in ASM

90% of the global mining **workforce** works in ASM

150 Million depend on ASM across **80 countries** in the global South

40-50 % of the ASM workforce in Africa are **women**





Cobalt and Low Carbon Technologies

- Cobalt is used in lithium-ion batteries we are all consumers of cobalt
- The rise of green technology movement and electric mobility has had a direct impact on cobalt demand: electric car batteries, renewable energy storage, smart phone batteries, etc.
- It is a key metal in the transition to a low carbon economy







Rob Lavinsky, iRocks.com, Creative Commons

COBALT: Democratic Republic of Congo

- Most of the global cobalt reserves are located in DRC
- Estimated that the DRC produces 60-70% of the world's cobalt
- ASM accounts for 20-30% of DRC's cobalt production
- Artisanal cobalt mining is one of the most important sources of income for local people





COBALT: Security, Human Rights, & Environment

While contributing to Low Carbon Economy, ASM cobalt mining is **informal and lacks regulation** or adequate safety standards

- Dangerous working conditions for men and women miners
- Exposure to toxic metal contamination
- Poor mine safety and sanitation
- Low income, much lower for women miners
- Poor environmental management
 - Water and air pollution increased exposure for women in cobalt processing







How we use research and data to mainstream WEE in ASM Cobalt programming?





Average monthly income by gender



- Women income is 60% less than men (not only in cobalt but in gold and other minerals)
- Women working in low paying areas (waste screening), have none to limited equipment capacity.
- We provide mining equipment to women to increase productivity.
- Train the women in equipment maintenance and management.
- Support women led mining cooperatives to access mining areas and have own mining pits.





Technical Skills and Monitoring Capacity

- Women miners have less technical skills but most environmentally exposed.
- Women washing cobalt are exposed to toxic heavy metals with significant health impacts.
- Similar findings in gold mining and mercury exposure. Greatest impact on women.
- Technical training to women miners and provision of protective equipment.
- Training on environmental monitoring. The project plans to purchase hand held devices to enable women test contamination water and air contamination.





Access to credit



Non Oui

- ASM access to credit is poor but for women miners, it is 50% less than men.
- In gold sector IMPACT implemented Artisanal Mining Women's Empowerment Credit and Savings (AFECCOR) project supporting women in artisanal mining communities to safely access savings and credit.
- In Mongolia, a women loan fund was established to fund women miners equipment and economic empowerment projects.





A lot needs to be done on WEE-Financial Inclusion

Bank Account ownership



Non, aucun compte
 Oui, un compte conjoint
 Oui, un compte personnel





Traditional Vs Non traditional financial systems

- Could Mobile Banking be an opportunity for increased financial inclusion for Women miners?
- Mobile Banking







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2. Are there new tools, technologies, methodologies or approaches you have adopted to adapt WEE programs to green economies? Are financial tools and market-based instruments (Corporate Social Responsibility, social and gender lens investing, carbon pricing, green bonds, green microfinance, for example) useful for WEE programs?











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The **Just Gold Project** in Democratic Republic of Congo



An incentive-based approach to **traceability & due diligence** for conflictfree and **legal artisanal gold from mine site to market** in alignment with regional/international standards applicable to conflict-affected and highrisk areas.



Democratic Republic of Congo's Ituri Province •





INSTITUTE FOR THE STUDY OF INTERNATIONAL DEVELOPMENT INSTITUT D'ÉTUDE DU DÉVELOPPEMENT INTERNATIONAL









Our Focus on the SDGs: (Cobalt) Project Scorecard

DEMOCRATIC REPUBLIC OF CONGO			Co	Cobalt for Development Impact Dimensions 2019 Baseline Assessment			
Peace and Security	49.3			Social protection	42.28		
	Baseline value	National benchmar	¢		Baseline value	Nationa benchma	
	49.33	64.67			38.90	35.77	
Inclusion	0.22	0.46	•	Basic Human Needs	0.369	0.376	
Justice	0.38	0.77	•	Foundation of well-being	0.414	0.399	
Security	0.88	0.71	•	Opportunity	0.384	0.298	
					45.67	42.00	
				Safe working environment	0.24	NA	
Environmental Protection	Baseline value	National	(Adequate earnings and productive work	0.13	0.11	
	15.45	24.36		Work that should be abolished	1	0.73	
Water and Sanitation	19.2	10	•				
Heavy metals	NA	40.5	7				
Air Quality	11.7	22.57	•				

cial protection	42.28		
	Baseline value	National benchmark	
	38.90	35.77	\bigcirc
sic Human Needs	0.369	0.376	•
undation of well-being	0.414	0.399	0
portunity	0.384	0.298	0
	45.67	42.00	\bigcirc
fe working environment	0.24	NA	-
equate earnings and productive work	0.13	0.11	_

			_
/ork that should be abolished	1	0.73	0

Surpassing the national avera	\odot
Equaling the national avera	\bigcirc
Below the National avera	

Gender Equity 67.10 Baseline National benchmark value 67.08 XX 0.42 Production Assets 0.98 0.75 Income Leadership 0.64 Reproductive 0.56 -- --. .

Equitable Livelihoods	48.40	
	Baseline value	National benchmark
	48.40	XX
Vulnerability context	0.65	
Livelihood assets	0.35	
Transforming structures and processes	0.34	
Livelihood strategies	0.39	
Livelihood Outcomes	0.69	

Project Score/Value

51.8 /100 53.33 National level Equivalent





Examples of Actionable Data as relates to Women's Economic Empowerment



Actionable Data to

- Go beyond risk monitoring & risk mitigation
- Go beyond DOING NO HARM to DOING GOOD





Learn more at: www.impacttransform.org





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3. Can you identify areas of future research that would be useful for WEE programs in the context of a global transition to green economies?





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For a recording of this seminar and related resources visit the WED Lab website:

http://womensempowerment.lab.mcgill.ca







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