

Promoting Gender Diversity and Inclusion in the Oil, Gas and Mining Extractive Industries

A Women's Human Rights Report
January 2019



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The Advocates for Human Rights
Minneapolis, Minnesota USA



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The mission of The Advocates for Human Rights is to implement international human rights standards in order to promote civil society and reinforce the rule of law. By involving volunteers in research, education, and advocacy, we build broad constituencies in the United States and select global communities. The Advocates has produced more than 80 reports documenting human rights practices in more than 25 countries, and works with partners overseas and in the United States to restore and protect human rights. The Advocates for Human Rights holds Special Consultative Status with the United Nations.

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Introduction

Research shows that women are highly under-represented in most extractive industries. The U.S. Department of Labor defines a male-dominated sector as one where women constitute less than one-fourth of the total workforce.¹ Extractive industries, such as oil, gas and mining, have traditionally fallen within this definition. In general, women remain underrepresented in these industries across most levels, but especially at senior ones.² According to Catalyst, a non-profit organization that focuses on gender diversity in the workplace, women constituted only 7.9 percent of board positions in the top 500 mining companies in 2016; of those among the top 100 companies, 94 percent of women represented were in non-executive positions.³ In Australia, women made up only 13.3 percent of the oil, gas and mining workforces in 2009 but by 2015, the number had increased slightly to 14.3.⁴ In 2015, women comprised 19.4 percent of the Canadian mining, quarrying, and oil and gas extraction labor force.⁵

Despite these rates, there is great potential to draw upon the increasing numbers of women with the requisite qualifications as more women are graduating with engineering and other technical degrees. For example, women earned only 2 percent of undergraduate engineering degrees conferred in the United States in 1995. Today, women hold around 18 percent of these degrees. As the sector becomes more mechanized and less reliant on heavy manual labor, traditional arguments for a male-dominated sector that relied on stereotypical reasoning are becoming even more obsolete.⁶

Shifting the status quo requires identifying the parties responsible for bringing about change and how they can do it. The first step to ensuring that women have equal opportunities in extractive industries is to ensure that discriminatory laws and sex-based protective legislation are repealed. Governments are not meeting their international legal obligations, nor are they utilizing their full workforce when they ban women from certain jobs and activities. Under international law, governments are also responsible to shift traditional gender norms and to eradicate harmful cultural practices that interfere with a woman's right to work. Companies in extractive industries are also subject to international norms that address equal opportunity and workforce diversity. Companies are not complying with the international standards for multi-national corporations nor are they getting the best and most diverse workforce they can when they fail to remove barriers that do not support, retain and advance women. As Caroline Kersten of Leverage HR states:

¹ *Quick Facts on Non-Traditional Occupations for Women*, U.S. DEP'T OF LABOR (Apr. 2009), <https://www.dol.gov/wb/factsheets/nontra2008.htm>.

² The exception to this can be found in artisanal and small-scale mining (ASM), where women are estimated to fill approximately half of these jobs. See MYLÈNE CODERRE-PROULX, BONNIE CAMPBELL & ISSIAKA MANDÉ, INT'L LABOUR OFFICE, *INTERNATIONAL MIGRANT WORKERS IN THE MINING SECTOR* 6 (2016). In addition, women historically filled the labor force of mines in many countries; for example, women comprised 48 percent of the work force in India's coal mines at the turn of the last century. Skype interview with Kuntala Lahiri-Dutt (Sept. 7, 2018).

³ *Women in Energy: Gas, Mining, & Oil*, CATALYST (Nov. 21, 2016), <https://www.catalyst.org/knowledge/women-energy-gas-mining-oil>.

⁴ *Id.*

⁵ *Id.*

⁶ Mark Crawford, *Engineering Still Needs More Women*, AM. SOC'Y MECHANICAL ENGINEERS (Sept. 2012), <https://www.asme.org/career-education/articles/undergraduate-students/engineering-still-needs-more-women>.

“[Women] are often the minority in the room, and this has impact on confidence, communication, and networking. Second, they are rarely being looked at as a strategic and visionary leader. And the third challenge is dealing with societal expectations, such as: men are the breadwinners and women take on most of family and household tasks. This often leads working women to feel guilty, as they want to be the best in all areas, and of course, that is impossible.”

At the request of the UN Group of Experts on Coal Mining Methane, The Advocates undertook research to investigate female inclusion in traditionally male-dominated, extractive sectors.⁸ The Advocates undertook desk research and interviews with experts to understand these issues. This report sets forth its findings in four sections: 1) benefits of women’s participation in these industries; 2) government obligations in terms of legal and social barriers, 3) corporate roles and responsibilities, and 4) considerations for women in the broader and surrounding communities.

This report first sets forth the positive benefits of a diverse workforce including greater female diversity. In addition to a larger pool of talent and workforce supply, studies show greater female participation can promote profitability, boost more accurate and objective thinking, enhance decision-making, and foster greater innovation.⁹

Second, this report examines the international legal obligations of governments to ensure equal employment opportunities for women. Governments are obligated to uphold and protect human rights for all persons, which span a number of economic, social, and cultural rights associated with employment. For example, the principles of equal treatment and non-discrimination are clearly set forth in international law. Yet, governments not only fail to meet these obligations, but many have placed restrictions—and in some cases, blanket prohibitions—on women’s choice of and ability to access employment.

Governments are also required under the Convention on the Elimination of Discrimination against Women (CEDAW) to modify social and cultural patterns of women with a view toward eliminating stereotypes and prejudices against women. Yet, social norms and expectations of traditional gender roles persist in many countries, creating obstacles to women’s full participation in extractive industries. For example, one study found that 20 percent of individuals surveyed in the oil and gas industry, who strongly agreed that gender-based discrimination was present in the industry, identified social expectations and familial responsibilities as hindrances to women’s participation.¹⁰

⁷Ruth Palombo Weiss, *Wanted: Global Women Leadership Pipeline*, ASS’N FOR TALENT DEV. (Sept. 9, 2015), <https://www.td.org/insights/wanted-global-women-leadership-pipeline> (last visited Dec. 18, 2018); Telephone interview with Mining Company Employee (Oct. 4, 2018).

⁸The Advocates for Human Rights would like to thank the following volunteers and interns for their support: Claire Bentley, Dechert LLP; Cynthia Capota; Jenn Cilingin, Dechert LLP; Henry Defriez, Dechert LLP; Carissa Fitzlaff; Heather Flanagan, Fish & Richardson PC.; Susan Grafton, Dechert LLP; Sarah Musgraves; Jayme Partridge, Fish & Richardson PC.; Gregory Reith, Dechert LLP; Albert Tse, Dechert LLP; Suzanne Turner, Dechert LLP; and Anna Veit-Carter, Soule & Stull, LLC. The Advocates would also like to thank the many individuals who shared their expertise and time through interviews.

⁹David Rock & Heidi Grant, *Why Diverse Teams Are Smarter*, HARV. BUS. REV. (Nov. 4, 2016), <https://hbr.org/2016/11/why-diverse-teams-are-smarter>.

¹⁰RIGZONE & BP, GLOBAL DIVERSITY AND INCLUSION REPORT 4 (2013).

Third, international norms and best practice standards require companies to support and include women. This report examines company practices that can create barriers to or support women's participation. It also explores the various factors that hinder female participation in these industries, including: bias, unsupportive corporate culture, sexism, wage discrimination, fewer promotions, a lack of mentors or female role models, a lack of flexible work arrangements (FWA) and visible support for their usage, insufficient assistance in re-entering the workforce, and infrastructure that does not meet women's needs. Along those lines, the greater mobility men tend to have is also a key factor. In Papua New Guinea, the international mining industry tended to fill senior positions with men who had greater flexibility to transfer between projects and countries.¹¹

Fourth, this report provides considerations to the harms posed to communities of extractive sites, and their disparate impact on women. Finally, this report concludes with recommendations to the extractive industry.

Any international approach to female diversity requires governments and companies to take into account that countries have different laws, cultural contexts, industry practices, and expectations. As stated by the Guyana Women Miners Organization, "you realize that every country has its own mechanisms and the reality for women in mining is different in every country."¹² For example, in Colombia, women can own land and work in the mines without legal limitations. But because of the FARC rebels and security issues, not all women have gone to the mines. Instead, they have paid their male counterparts to do the extractive labor for them, and the women do the crushing work.¹³ Readers should take considerations set forth in this report as general principles that need to be adapted to local context to be truly effective and relevant.

¹¹Martha Macintyre, *Modernity, Gender and Mining: Experiences from Papua New Guinea*, in *GENDERING THE FIELD: TOWARDS SUSTAINABLE LIVELIHOODS FOR MINING COMMUNITIES* 24 (Kuntala Lahiri-Dutt ed., 2011).

¹²Skype interview with Guyana Women Miners Organization (Aug. 31, 2018).

¹³*Id.*

Benefits of Female Inclusion and Diversity In The Extractives Industry

The business case for greater gender diversity in the extractives industry is compelling. A growing body of research shows that greater female inclusion provides a larger pool to meet the high demand for laborers, higher retention of key talent, increased profitability, better performance, improved safety records, higher standards of government behavior, and benefits to women and the broader community. As a non-profit organization working with women in mining reports, with women there is better “safety, innovation, and . . . creativity.”¹⁴

Larger Talent Pool for Recruitment

Companies that limit or focus their hiring on men restrict themselves to a smaller talent pool than those companies that seek to ensure gender neutrality or promote greater diversity in hiring decisions and processes.¹⁵ Actively recruiting and retaining women can help meet the demand for what is a limited supply of workers. In recent years, the oil industry eliminated more than 400,000 jobs globally.¹⁶ Many of these laborers have since moved on to other jobs, and it is harder for companies to find replacements. After the shale industry laid off approximately 60 percent of its labor force needed to frack wells,¹⁷ it took one firm several months to completely fill its fracking crews.¹⁸

On top of the current shortage, reports have highlighted the aging workforce in the oil and gas sectors and the need to replace these employees as they retire, which can be an expensive process.¹⁹ The National Research Council states that “virtually every major technical society across the energy spectrum has conducted workforce studies, and they have expressed concerns about the aging petroleum workforce and the lack of qualified personnel to replace them.”²⁰

¹²Skype interview with Barbara Dischinger, Camila Reed, & Deborah Craig, International Women in Mining (Sept. 10, 2018); see also Zoom interview with Pink Petro (Sept. 14, 2018).

¹³*Id.*

¹⁴Skype interview with Barbara Dischinger, Camila Reed, & Deborah Craig, International Women in Mining (Sept. 10, 2018); see also Zoom interview with Pink Petro (Sept. 14, 2018).

¹⁵KATHARINA RICK, IVÁN MARTÍN, & ULRIKE VON LONSKI, BOS. CONSULTING GROUP & WORLD PETROLEUM COUNCIL, UNTAPPED RESERVES: PROMOTING GENDER BALANCE IN OIL AND GAS 4 (2017) [hereinafter UNTAPPED RESERVES].

¹⁶Nick Cunningham, *The Labor Shortage in the Shale Boom*, OILPRICE (Jan. 15, 2018), <https://oilprice.com/Energy/Energy-General/The-Labor-Shortage-In-The-Shale-Boom.html> [hereinafter Cunningham, *Shale Boom*]; Nick Cunningham, *The Oil Industry Is Facing a Massive Shortage of Workers*, BUS. INSIDER (July 11, 2016), <https://www.businessinsider.com/oil-industry-facing-massive-worker-shortage-2016-7> [hereinafter Cunningham, *Massive Shortage of Workers*].

¹⁷Cunningham, *Massive Shortage of Workers*, *supra* note 16.

¹⁸Ryan Maye Handy, *Labor Shortage in West Texas Getting Worse*, HOUS. CHRONICLE (Mar. 28, 2018), <https://www.houstonchronicle.com/business/article/Labor-shortages-in-West-Texas-getting-worse-12790619.php>.

¹⁹See Zoom interview with Pink Petro (Sept. 14, 2018); Skype interview with Barbara Dischinger, Camila Reed, & Deborah Craig, International Women in Mining (Sept. 10, 2018).

²⁰NAT'L RESEARCH COUNCIL OF THE NAT'L ACADS., EMERGING WORKFORCE TRENDS IN THE U.S. ENERGY AND MINING INDUSTRIES: A CALL TO ACTION 35 (2013).

During the 1980s' oil bust, corporations shuttered their doors and laid off workers. Consequently, the low job vacancy rates in the industry deterred much of an entire generation of workers from entering the oil and gas industry until 2000. Today, the existing labor force is nearing retirement, setting up the industry for another labor shortage. Between 2015 and 2035, estimates project 585,097 job opportunities to open up due to replacement needs in the oil, gas, and petrochemical sectors.²¹ This breaks down to hiring approximately 30,000 new employees every year over 20 years to fill positions left vacant by retiring staff.²² As summarized by one reporter, “[t]here are too few experienced professionals to replace retiring workers.”²³

Labor shortages impact productivity and cause delays.²⁴ While drilling has escalated in the Permian Basin in the United States, the labor shortage means 2,400 wells remained untapped as of September 2017.²⁵ Labor shortages also affect profitability. A senior operator at Byrd Oilfield Service estimated a daily loss of U.S. \$7,000 because it lacks enough delivery truck drivers.²⁶ Costs of production rise, as employers lure new workers from the short supply with higher salaries, housing allowances, temporary housing arrangements, and signing bonuses.²⁷ In short, increasing labor costs in an economy with low unemployment and a small labor pool affects the bottom line.²⁸

In the midst of this shortfall of workers, women represent an under-tapped and qualified resource. One study states that women account for only 10 percent of the mining industry's workforce, but that, in 2010, women accounted for 54 percent of total graduates.²⁹ In the U.S., women hold 30 percent of STEM degrees, but constitute only 14.5 percent of the labor force in oil and gas.³⁰ As summarized by a representative of International Women in Mining, “[i]f you're excluding half the population from your recruitment process, you're simply not hiring from the best talent pool available.”³¹ Hiring more women can help ease labor shortages, expand the talent pool, and enable companies to recruit more locally. They can also feed into senior level positions as older employees retire. Forty percent of women polled in one survey are in their first four years in oil and gas—constituting a potential pool to fill the demand for senior-level positions.³²

²¹IHS GLOBAL INC., MINORITY AND FEMALE EMPLOYMENT IN THE OIL & NATURAL GAS AND PETROCHEMICAL INDUSTRIES, 2015–2035 35 (2016).

²²*Id.*; see also Nick Cunningham, *Oil Industry Faces Huge Worker Shortage*, OILPRICE (July 10, 2016), <https://oilprice.com/Energy/Energy-General/Oil-Industry-Faces-Huge-Worker-Shortage.html> [hereinafter Cunningham, *Huge Worker Shortage*].

²³Cunningham, *Huge Worker Shortage*, *supra* note 22.

²⁴Avi Salzman, *The Great Labor Crunch*, BARRON'S (Mar. 9, 2018), <https://www.barrons.com/articles/the-great-labor-crunch-1520655014>.

²⁵Collin Eaton, *Labor Shortage Weighs on Oil Industry Recovery*, HOUS. CHRONICLE, (Oct. 20, 2017), <https://www.houstonchronicle.com/business/article/Labor-shortage-weighs-on-oil-industry-recovery-12295475.php>.

²⁶*Id.*

²⁷Salzman, *supra* note 24; Cunningham, *Shale Boom*, *supra* note 16; Eaton, *supra* note 25.

²⁸Eaton, *supra* note 25.

²⁹WOMEN IN MINING (UK) & PRICEWATERHOUSECOOPERS, MINING FOR TALENT: A STUDY OF WOMEN ON BOARDS IN THE MINING INDUSTRY 17 (Jan. 2013) [hereinafter MINING FOR TALENT 2013].

³⁰RYAN NOONAN, U.S. DEP'T OF COMMERCE, ECON. & STAT. ADMIN, WOMEN IN STEM: 2017 UPDATE 1 (2017); Lydia DePilis, *Oil and Gas Efforts to Recruit Women Aren't Working*, HOUS. CHRONICLE (July 25, 2017), <https://www.chron.com/business/energy/article/Oil-and-gas-efforts-to-recruit-women-not-working-11306581.php>.

³¹Barbara Dischinger, Int'l Women in Mining, Powerpoint presentation, (on file with authors).

³²*Women in Oil & Gas*, HAYS, <http://www.hays.co.uk/job/energy-oil-gas-jobs/women-in-oil-gas-1569474> (last visited Dec. 20, 2018).

Greater Profitability

Equal opportunity and treatment for women boosts the global economy. According to the McKinsey Global Institute, if all countries were to close their gender gaps so that they at least match the fastest-improving country in their region, worldwide GDP would increase by U.S. \$12 trillion by 2025.³³

Research shows that female inclusion also boosts company profits. In its 2015 report, *Diversity Matters*, McKinsey found that companies ranking in the top 25 percent for gender diversity are 15 percent more likely to have “financial returns” higher than the national industry medians.³⁴ Studies have found that profit margins are higher and social success is greater for companies with female directors on their boards and women in senior positions.³⁵ In the mining industry, the top 100 companies have more female directors and women on their boards, while the top 100 to 500 mining companies have more women senior executives than companies falling outside the top 500.³⁶

At the senior management level, gender diversity has been shown to improve financial performance. Increased gender diversity in senior management is associated with improvements in sales revenue, customers, market share, return on equity, operating profits, and share price—particularly in developed countries.³⁷ From 2007–2009, the American Chamber of Commerce in France found that companies with greater numbers of women in senior management “outperformed those with no women by 41 percent in terms of return on equity (22 percent vs. 15 percent), and by 56 percent in terms of operating results (17 percent vs. 11 percent).”³⁸

At the board level, the financial benefits of greater female representation are also well-documented. Catalyst found that among a broad range of companies, those with female board members have the highest returns on equity, sales, and invested capital.³⁹ In terms of representation on corporate boards, companies with greater gender representation on boards have shown at least a 53 percent higher return on equity compared to those at the bottom of the rankings.⁴⁰ Gender diversity on boards shows a stark impact on investment returns depending on the gender constitution. PWC found that “on average, for every £1 invested in [business related to mining], those with all male boards have a loss of 2% on their investment and those with two or more women make a return of 6% on their investment.”⁴¹

³³MCKINSEY GLOBAL INST., *THE POWER OF PARITY: HOW ADVANCING WOMEN'S EQUALITY CAN ADD \$12 TRILLION TO GLOBAL GROWTH* 25 (Sept. 2015).

³⁴VIVIAN HUNT, DENNIS LAYTON, & SARA PRINCE, MCKINSEY & COMPANY, *WHY DIVERSITY MATTERS* 3 (2015).

³⁵MINING FOR TALENT 2013, *supra* note 29, at 11. See also CATALYST, INC., *THE BOTTOM LINE: CORPORATE PERFORMANCE AND WOMEN'S REPRESENTATION ON BOARDS* (2007) (showing that having women directors results in companies having higher returns on sales, higher returns on invested capital and higher returns on equity) [hereinafter CATALYST, *THE BOTTOM LINE*].

³⁶MINING FOR TALENT 2013, *supra* note 29, at 6. See also CREDIT SUISSE INST. RESEARCH REP., *THE CS GENDER 3000: THE REWARD FOR CHANGE* 25–26 (2016) (“[C]ompanies with 25% female participation [in senior management] had a 22.8% annualized average return over 5 years, those with over 33% had a 25.6% annualized average return and those with more than 50%, a 29.7% annualized average return.”).

³⁷See *generally* HUNT ET AL., *DIVERSITY MATTERS*, *supra* note 34.

³⁸AM. CHAMBER OF COMMERCE IN FRA. & BUS. AND INDUS. ADVISORY COMM. TO THE OECD, *PUTTING ALL OUR MINDS TO WORK: HARNESSING THE GENDER DIVIDEND* 8 (2012) [hereinafter *PUTTING ALL OUR MINDS TO WORK*].

³⁹DELOITTE, *TOWARDS GENDER PARITY: WOMEN ON BOARDS INITIATIVE* 14 (2016) (citing CATALYST, *THE BOTTOM LINE*).

⁴⁰*PUTTING ALL OUR MINDS TO WORK*, *supra* note 38.

⁴¹WOMEN IN MINING & PRICewaterhouseCOOPERS, *MINING FOR TALENT 2014: A REVIEW OF WOMEN ON BOARDS IN THE MINING INDUSTRY* 13 (2014).

When companies implement supportive policies for women, it impacts retention and costs of recruitment. When employees leave, replacing them with new hires is costly.⁴² Employers must cover advertising, recruiters' fees, travel expenses, sign-on bonuses, and relocation expenses.⁴³ For example, in the professional or manufacturing sector, the financial expenses of hiring a new staff person can reach more than U.S. \$5,000.⁴⁴ When there is investment in women, it increases their reasons to stay with the company.⁴⁵

Better Able to Meet Public and Investor Demand

Research indicates that greater female representation at the board level also produces better standards of governance behavior that investors, consumers, and clients are beginning to seek. When boards have greater gender diversity and inclusion, they demonstrate greater accountability, increased and improved governance, and improved collaboration.⁴⁶ Increased gender diversity on boards also promotes compliance with national and international conventions and regulations, as well as strengthens corporate accountability before the public.⁴⁷

Studies also show that investor confidence rises with gender diversity. Global investors increasingly are requiring companies to be more transparent in showing their efforts to build gender-diverse boards and disclosing gender-related information. For example, IFC's Performance Standard 2 outlines requirements for non-discrimination and equal opportunity employment for men and women. The U.S Securities and Exchange Commission now requires companies to disclose whether and how the nominating committee "considers diversity in identifying nominees" for directorships.⁴⁸ In other fields, clients and consumers are driving the demand for more diversity and equity in their teams.⁴⁹ For example, in the legal sector, corporate clients are demanding to know diversity levels on their legal teams by asking who is billing time, who is receiving the billing credit, what proportion are women or people of color, and who is securing the choice opportunities on a case.⁵⁰

⁴²Skype interview with Barbara Dischinger, Camila Reed, & Deborah Craig, International Women in Mining (Sept. 10, 2018).

⁴³*The Cost of Hiring New Employees (Infographic)*, RECRUITERBOX, <https://recruiterbox.com/blog/the-cost-of-hiring-new-employees-infographic> (last visited Dec. 21, 2018).

⁴⁴*Id.*

⁴⁵Skype interview with Barbara Dischinger, Camila Reed, & Deborah Craig, International Women in Mining (Sept. 10, 2018).

⁴⁶Rebecca Walberg, *How to Improve Boardroom Diversity without Resorting to Quotas of Tokenism?*, FIN. POST (October 6, 2014), <https://business.financialpost.com/executive/leadership/how-to-improve-board-diversity-without-resorting-to-quotas-and-tokenism>; WORKPLACE GENDER EQUAL. AGENCY, THE BUSINESS CASE FOR GENDER EQUALITY (2013).

⁴⁷GLOBAL REPORTING INITIATIVE & INT'L FIN. CORP., EMBEDDING GENDER IN SUSTAINABILITY REPORTING: A PRACTITIONER'S GUIDE 5 (2009).

⁴⁸WILLEM ADEMA, ENHANCING WOMEN'S ECONOMIC EMPOWERMENT THROUGH ENTREPRENEURSHIP AND BUSINESS LEADERSHIP IN OECD COUNTRIES 26 (2014).

⁴⁹Telephone interview with Twin Cities Diversity in Practice (Sept. 13, 2018).

⁵⁰*Id.*

Finally, women are key consumers in today's economy. One estimate places women's control of global spending at more than U.S. \$20 trillion.⁵¹ In the jewelry industry, women "drive demand for more than 90 percent of the world's jewelry."⁵² The artisanal and small-scale mining industry has approximately 100 million people who work for and are dependent on it.⁵³ In locations where mines are less regulated or even illegal, however, it can foster human trafficking, labor exploitation, and environmental damage. Women's perspectives as buyers and consumers are important.⁵⁵ Increasingly, consumer women, especially among the younger generation, care about the sourcing of their goods and the impact on people within the supply chain.⁵⁶

Improved Performance

Research shows that companies with more women employees and gender-diverse teams have better teamwork, communication, and greater creativity in solving business and technical problems than homogenous work forces.⁵⁷ For example, studies show that while men tend to prefer working with other men, women are more likely to use teamwork and cooperative approaches that draw on the skills and resources of a broader network.⁵⁸ Well-managed, broadly diverse teams tend to outperform homogenous teams, including on metrics such as fostering greater innovation.⁵⁹ And in locations where socio-economic opportunities are limited for women, female workers show strong respect for their jobs.⁶⁰

With more women comes diversity of perspectives.⁶¹ Teams with diverse members process information more carefully and objectively than homogenous teams. They are more inclined to re-examine facts and scrutinize each other's decisions and behavior. As a result, research indicates that diverse teams are better at making decisions than non-diverse teams.⁶² Having different people in the room brings in perspectives to spot new issues.⁶³ For example, women's lenses can pick out sensitivities of job descriptions and performance indicators. Multiple sources have highlighted how women can identify the gender bias in job descriptions that would deter females, such as the use of "he" as a pronoun, or terms that connote traditional notions of masculinity, such as the use of "ninja," "rock star," and "dominate."⁶⁴

⁵¹Statistics on the Purchasing Power of Women, GIRLPOWER MARKETING, <https://girlpowermarketing.com/statistics-purchasing-power-women/> (last visited Dec. 21, 2018).

⁵²BSR, WOMEN IN THE JEWELRY SUPPLY CHAIN 4 (2018).

⁵³*Id.* at 17.

⁵⁴*Id.*

⁵⁵Telephone interview with Corporate Executive, Fortune 500 Company (Sept. 7, 2018).

⁵⁶BSR, *supra* note 52, at 6.

⁵⁷Skype interview with Gladys Smith, International Women in Mining (Sept. 6, 2018); UNTAPPED RESERVES, *supra* note 15; PUTTING ALL OUR MINDS TO WORK, *supra* note 38, at 8.

⁵⁸ORG. FOR ECON. COOP. & DEV., BACKGROUND REPORT CONFERENCE ON IMPROVING WOMEN'S ACCESS TO LEADERSHIP 28 (2016).

⁵⁹See, e.g., PUTTING ALL OUR MINDS TO WORK, *supra* note 38, at 8.

⁶⁰Skype interview with Gladys Smith, International Women in Mining (Sept. 6, 2018).

⁶¹UNTAPPED RESERVES, *supra* note 15, at 4.

⁶²Rock & Grant, *supra* note 9.

⁶³Telephone interview Corporate Executive, Fortune 500 Corporation (Sept. 7, 2018).

⁶⁴*Id.* Carmen Nobel, *How to Take Gender Bias Out of Your Job Ads*, FORBES (Dec. 14, 2016), <https://www.forbes.com/sites/hbsworkingknowledge/2016/12/14/how-to-take-gender-bias-out-of-your-job-ads/#e34ce011024c>; Maxwell Huppert, *5 Must-Do's for Writing Inclusive Job Descriptions*, LINKEDIN TALENT BLOG (Apr. 9, 2018), <https://business.linkedin.com/talent-solutions/blog/job-descriptions/2018/5-must-dos-for-writing-inclusive-job-descriptions>.

Effects of Gender-diverse Boards

Research shows that boards of directors with at least three women demonstrate improved communications, greater adherence to codes of conduct, and better criteria for managing strategy and monitoring its implementation. Boards with more women directors are also more apt to focus on gender diversity, employee satisfaction, and corporate social responsibility.⁶⁵ More gender-diverse boards may also impact how members hold each other accountable due to the different ways men versus women arrive onto boards.⁶⁶ Men may often come on boards through social networks, in contrast to women who may lack the same level of access to these connections. As a result, women may have fewer reservations to hold colleagues accountable or confront them on performance issues.⁶⁷

Effects of Women in Senior Management

When women are found in senior management, studies show a positive effect on motivation, teamwork, and cooperation. Specifically, companies with three or more women in senior management ranked more highly on a range of organizational metrics, including capability, leadership, external orientation, accountability, motivation, coordination and control, innovation, and work environment, which are positively associated with higher operating margins.⁶⁸ In addition to the financial benefits, women in senior management bring top-down positive benefits, including a positive effect on managers of both sexes and as strong role models to motivate female middle managers.⁶⁹ Another advantage is diversity of leadership styles because women typically display more forward-looking and consensus-building skills than men.⁷⁰

Better Safety Records

Companies with more women demonstrate better safety records than companies with few or no women.⁷¹ Numerous studies show that female employees are more likely to follow safety protocols, treat equipment responsibly, and operate safely.⁷² As a result, women-operated equipment requires less maintenance and repair.⁷³ For example, a mining expert described how women tend to be more careful drivers than men and take turns more slowly. As a result, during a tire shortage, employers realized it was financially better to employ women drivers, because they would not wear out tires as quickly as men.⁷⁴

⁶⁵THE CONFERENCE BOARD OF CANADA, WOMEN ON BOARDS: NOT JUST THE RIGHT THING ... BUT THE "BRIGHT" THING 5, 13 (2002).

⁶⁶Walberg, *supra* note 46.

⁶⁷*Id.*

⁶⁸Georges Desvaux, Sandrine Devillard-Hoellinger, & Mary C. Meane, *A Business Case for Women*, FORBES, Oct. 3, 2008, https://www.forbes.com/2008/10/03/business-women-economics-lead-cx_1003mckinsey.html#610357b2d5d3.

⁶⁹INT'L FIN. CORP., SHEWORKS: PUTTING GENDER SMART COMMITMENTS INTO PRACTICE 15 (2016) (describing a study that examined 15 years of results from S&P 500 firms).

⁷⁰McKINSEY & Co., WOMEN MATTER 2010: WOMEN AT THE TOP OF CORPORATIONS MAKING IT HAPPEN 7 (2011).

⁷¹*Are Women the Mining Industry's Most Underdeveloped Resource*, MINES MAGAZINE, <http://minesmagazine.com/8749> (last visited Dec. 21, 2018) [hereinafter *Underdeveloped Resource*].

⁷²INT'L FIN. CORP., INVESTING IN WOMEN'S EMPLOYMENT: GOOD FOR BUSINESS, GOOD FOR DEVELOPMENT 20, 2013.

⁷³WOMEN IN MINING CANADA, WELCOMING WOMEN: AN ACTION PLAN FOR CANADA'S MINING EMPLOYERS 7 (2016).

⁷⁴Telephone interview with Academic Expert (Sept. 4, 2018).

Women operators are increasingly in demand not only because their behavior yields better safety outcomes but also fosters a more safety-conscious operating environment.⁷⁵ In Queensland, Downer EDI Mining sought an exemption from anti-discrimination laws to advertise for female-only entry-level operators. Among its other goals of promoting a gender inclusive culture, it explained before the Queensland Civil and Administrative Tribunal that men were more likely to take risks and a larger female on-site workforce would cultivate a safer culture.⁷⁶

Yet, experts cautioned against reinforcing gender stereotypes when recognizing women as “safe.” This reflects biases found in research that attribute women’s strong performance to factors such as luck or putting in long hours, instead of their actual skills and capabilities.⁷⁷ To one mining expert, praising women as “safe” engenders and narrows their capabilities while overlooking the overall skills they bring and their technical expertise. Safety should not be the only narrative describing women miners; instead, the narrative should be “safer and...” to highlight the full range of skills they bring to the job.⁷⁸ Interviewees also cautioned against hiring based on the stereotype that women are more docile and therefore make for safer workers. One expert shared an example where foreign multinational companies sought to hire women for largescale mines in Indonesia, because women were perceived as less reckless than men.⁷⁹ She suggested the actual and underlying reason for preferred women hires was because they were seen as docile workers, particularly when coupled with a Southeast Asian body language custom of bowing down and not looking directly at a superior’s face.⁸⁰

Economic Empowerment to Women and Communities

Mining jobs often pay higher wages than other jobs, as well as offering benefits.⁸¹ New financial opportunities opened when women were allowed to work in Colombia’s emerald mining. Mining for gemstones is unpredictable and can overburden miners with debt, as described below. Women who attain managerial positions, however, have potential to earn far greater income than what they were otherwise earning. One Colombian woman who became a security supervisor at a mine tripled her monthly salary that she received in Bogotá.⁸² In South Africa, which produces coal, diamond, gold and platinum and where unemployment rates are more than 26 percent, mining provides jobs in an otherwise challenging employment environment.⁸³ A former hairstylist in Queensland reported that she earns six-figures annually by working

⁷⁵WOMEN IN MINING CANADA, WELCOMING WOMEN: AN ACTION PLAN FOR CANADA’S MINING EMPLOYERS 7 (2016).

⁷⁶Kay Dibben, *Mining Contractor Wins Right to Advertise for Female Truck Drivers Because They ‘Improve a Safety Culture’*, COURIER MAIL (Nov. 14, 2013), <https://www.couriermail.com.au/news/queensland/mining-contractor-wins-right-to-advertise-for-female-truck-drivers-because-they-improve-a-safety-culture/news-story/ff2c9fc8e71f777fe890545a64830ff5>.

⁷⁷Paola Cecchi-Dimeglio, *How Gender Bias Corrupts Performance Reviews, and What to Do about It*, HARV. BUS. REV. (Apr. 12, 2017), <https://hbr.org/2017/04/how-gender-bias-corrupts-performance-reviews-and-what-to-do-about-it>.

⁷⁸Telephone interview with Academic Expert (Sept. 4, 2018).

⁷⁹Skype interview with Kuntala Lahiri-Dutt (Sept. 7, 2018).

⁸⁰*Id.* Furthermore, this preference boxes women as a risk-averse population, when in fact, women often assume many different risks throughout their lives. *Id.*

⁸¹Zoom interview with Pink Petro (Sept. 14, 2018); Andrew Green, *Surviving the “Underground” Economy: Women Miners in South Africa*, WOMEN ACROSS FRONTIERS, <https://wafmag.org/2017/03/surviving-underground-economy-women-miners-south-africa/> (last visited Dec. 20, 2018) [hereinafter Green, *Surviving the “Underground” Economy*]

⁸²AFP, *Women of Colombia’s Emerald Mines Shine after Smashing Taboo*, NEW VISION (Jan. 14, 2018), https://www.newvision.co.ug/new_vision/news/1468974/women-colombias-emerald-mines-shine-smashing-taboo.

⁸³Green, *Surviving the “Underground” Economy*, *supra* note 81.

10.5-hour shifts, five days per week.⁸⁴ In parts of the U.S., where the supply of licensed truck drivers cannot meet the demand, women can make up to U.S. \$200,000 per year.⁸⁵ Based on annual wage data, the average pay for careers in oil and gas is almost U.S. \$50,000 higher than the U.S. average.⁸⁶ Especially for blue collar workers without college degrees, women, including single mothers, can comfortably support their families on extractive industry wages.⁸⁷ Opening up these economic opportunities to women empowers women to provide for themselves and their families.

The impact of employing women also has repercussions throughout the broader community. When greater income equality is distributed across women and men, poverty diminishes over the generations. For every U.S. \$1 a man earns, he invests around 30 cents back into his family. For every U.S. \$1 a woman earns, she invests 80 cents into her family.⁸⁸ When women hold assets or gain income, that money is more likely to be spent on their family's nutrition, medicines, education, and housing. As a result, children are healthier and communities do better. In addition, research indicates companies that include women have heightened social and environmental stewardship. Examples of such benefits range from lower water usage to returning a greater share of the company's profits to the community through various forms of community engagement.⁸⁹

⁸⁴Dibben, *Mining Contractor Wins Right to Advertise for Female Truck Drivers Because They Improve a Safety Culture*, *supra* note 76.

⁸⁵Eaton, *Labor Shortage Weighs on Oil Industry Recovery*, *supra* note 25.

⁸⁶Zoom interview with Pink Petro (Sept. 14, 2018).

⁸⁷Telephone interview with Academic Expert (Sept. 4, 2018).

⁸⁸*Economic Empowerment*, HALF THE SKY MOVEMENT, <http://www.halftheskymovement.org/issues/economic-empowerment.html> (last visited Dec. 21, 2018).

⁸⁹*Underdeveloped Resource*, *supra* note 71.

Governments' Legal Obligations Regarding Women's Participation

Women continue to experience widespread discrimination and inequality in employment. In most parts of the world, women often: work in undervalued and low-paid jobs; lack access to education, training, and recruitment opportunities; have limited bargaining and decision-making power; and still shoulder responsibility for most unpaid family care work. Governments, however, have international legal obligations to enact laws and policies to promote equal treatment and opportunity for women, on the basis of equality with men, to participate in the economic, social, and civil life of society.⁹⁰ Enacting policies that provide for equal treatment and opportunity can help bring governments toward compliance with international human rights standards.

International law, including CEDAW, International Covenant on Economic, Social and Cultural Rights (“ICESCR”), and the International Labor Organization (“ILO”) Conventions, recognize relevant human rights that affect women’s ability to enjoy the right to work. Both CEDAW and ICESCR guarantee women the same employment rights, opportunities, choices, and benefits as men. Both affirm the existence of a woman’s right to work and set forth a comprehensive set of government obligations to ensure full and effective enjoyment by women of the right.⁹¹ Governments must abolish laws, regulations, and cultural practices that restrict the types of work in which women can engage, that limit women’s freedom of movement, and that permit gender-based workplace discrimination or harassment. In other words, governments are obligated to ensure women can exercise their right to work on a basis equal to that of men.⁹² Importantly, CEDAW, along with ICESCR and ILO Convention Nos. 100 and 111, mandate the right to equal pay for equal work without distinction, and the guarantee that conditions of work for women must not be inferior to those enjoyed by men.⁹³ This includes not just the right to safe and healthy working conditions but also equal opportunity to be promoted based on competence and seniority, and to obtain the education, training, and mentoring necessary to achieve employment and promotion.⁹⁴ ILO Convention No. 156 also encourages governments to make national policies that enable persons with family responsibilities to exercise their right to work without conflict between their employment and family responsibilities.⁹⁵ CEDAW likewise encourages governments to provide social supports, such as childcare and family services, to allow parents to meet both family and work responsibilities.⁹⁶

⁹⁰See CEDAW art. 1–2, Dec. 18, 1979, 1249 U.N.T.S. 13 [hereinafter CEDAW]; International Covenant on Economic, Social and Cultural Rights art. 2(2), Dec. 16, 1966, 993 U.N.T.S. 3 [hereinafter ICESCR]; International Covenant on Civil and Political Rights art. 2(2), Dec. 16, 1966, 999 U.N.T.S. 171 [hereinafter ICCPR].

⁹¹CEDAW, *supra* note 90, art. 11; ICESCR, *supra* note 90, art. 6(1).

⁹²UN Committee on Economic, Social and Cultural Rights (CESCR), *General Comment No. 1: Reporting by States Parties*, U.N. Doc. E/1989/22 (July 27, 1981); U.N. Committee on the Elimination of Discrimination Against Women, *General Recommendation No. 19: Violence against women*, ¶¶ 17–18, 1992 (discussing how equality in employment can be seriously impaired when women are subjected to gender specific violations or harassment in the workplace).

⁹³CEDAW, *supra* note 90, art. 11(1)(d), (f); U.N. Committee on the Elimination of Discrimination Against Women, *General Recommendation No. 13: Equal remuneration for work of equal value*, 1989; ICESCR, *supra* note 90, art. 7(a)(1), (b); International Labour Organization, *Equal Remuneration Convention*, June 29, 1951, No. 100; International Labour Organization, *Discrimination (Employment and Occupation) Convention* art 2., June 25, 1958, No. 111 [hereinafter *Discrimination (Employment and Occupation) Convention*].

⁹⁴ICESCR, *supra* note 90, art. 7(b), (c); *Discrimination (Employment and Occupation) Convention*, *supra* note 93, art. 3.

⁹⁵International Labour Organization, *Workers with Family Responsibilities Convention* art 3(1), June 23, 1981, No. 156 [hereinafter *Workers with Family Responsibilities Convention*].

⁹⁶CEDAW, *supra* note 90, art. 11(2)(c); see also *Workers with Family Responsibilities Convention*, *supra* note 95, art. 5(b).

Moreover, the ILO mandates that governments adopt appropriate measure to safeguard pregnant or breastfeeding workers from work conditions that are prejudicial to the health of the mother or child.⁹⁷ This includes providing maternity leave and medical benefits⁹⁸ as well as employment protection during pregnancy and maternity leave.⁹⁹

Fundamental to women's right to work on an equal basis with men are the rights to self-determination and equality before the law. The ICESCR and ICCPR state explicitly that all people, both men and women, have the right of self-determination and may pursue, among other things, their own economic development. This right is frequently described as a necessary precondition and means to the realization of all other human rights.¹⁰⁰ Article 15 of CEDAW obligates governments to ensure women's legal autonomy by guaranteeing them equality with men before the law. It also guarantees women equal legal capacity in civil matters, including to enter contracts, to own and deal with property, to access credit and engage in financial matters, and to represent their interests in courts or tribunals.¹⁰¹ It further requires equality in the law relating to freedom of movement and choice of residence.¹⁰² Any restriction on a woman's right to freely move about or to choose the family residence on the same basis as a man's may prevent her from accessing employment on a basis equal to men, which violates CEDAW Art. 15.¹⁰³

Laws That Discriminate Against Women

Governments are obligated to ensure that laws protect and promote the human rights of all people without distinction. Many discriminatory laws, however, still exist, prohibiting women's entry and inclusion into these industries. More than 2.7 billion women around the world face legal restrictions in industries from so-called protective legislation, which purports to protect women from dangerous work, but in practice, discriminates based on harmful stereotypes.¹⁰⁴ In discussing exclusions from specific jobs, the Committee of Experts on the Application of Conventions and Recommendations stated that "[w]omen should have the right to pursue freely any job or profession and the Committee points out that the exclusions or preferences in respect of a particular job . . . should be determined objectively without reliance on stereotypes and negative prejudices about men's and women's roles."¹⁰⁵

⁹⁷International Labour Organization, Maternity Protection Convention art 3, June 15, 2000, No. 183 [hereinafter Maternity Protection Convention].

⁹⁸Id. at art. 4, 6(7); CEDAW, *supra* note 90, art. 11(2)(b); ICESCR, *supra* note 90, art. 10(2).

⁹⁹Maternity Protection Convention, *supra* note 97, art. 8.

¹⁰⁰ICESCR, *supra* note 90, art. 1(1); ICCPR, *supra* note 90, art. 1; UN Human Rights Committee, *General Comment No. 12: Article 1 (Right to Self-determination), The Right to Self-determination of Peoples* ¶ 1, Mar. 13, 1984.

¹⁰¹CEDAW, *supra* note 90, art. 15(1), (2); UN Committee on the Elimination of Discrimination Against Women, *General Recommendation No. 21: Equality in Marriage and Family Relations*, ¶¶ 7–8 (1994) (a woman is denied legal autonomy when she cannot enter into a contract, access financial credit or own property) [hereinafter No. 21: *Equality in Marriage and Family Relations*].

¹⁰²CEDAW, *supra* note 90, art. 15(4).

¹⁰³No. 21: *Equality in Marriage and Family Relations*, *supra* note 101, art. 8–9.

¹⁰⁴WORLD BANK GROUP, *WOMEN, BUSINESS AND THE LAW* 1 (2018).

¹⁰⁵International Labour Conference, *Giving Globalization a Human Face*, ¶ 788, ILO Doc. ILC.101/III/1B (2012).

In some cases, protective legislation that discriminates based on sex can promote gender equality by taking into account women's reproductive and parental capacities. Article 10(2) of ICESCR states "Special protection should be accorded to mothers during a reasonable period before and after childbirth. During such period working mothers should be accorded paid leave or leave with adequate social security benefits."¹⁰⁶ CEDAW explicitly requires States Parties to ensure special protection to pregnant women engaged in work that is harmful to them, safeguard functions related to reproduction, and prohibit dismissal based on pregnancy or maternity leave.¹⁰⁷ For example, these measures may include provisions of maternity leave, accommodations for breastfeeding, or limiting exposure to hazards harmful to the fetus or a pregnant/nursing woman.¹⁰⁸

But in other cases, countries' laws perpetuate discrimination and harmful stereotypes. Some countries have laws that require women to obey their husbands, restrict a woman's ability to travel outside her home or country, or distinguish between a woman's legal capacity to secure a job or pursue a trade and that of a man.¹⁰⁹ For example, Cameroon, which has mineral resources as well as petroleum, has discriminatory civil laws and ordinances. As of 2014, Article 223 of the Civil Code and Article 74 of Ordinance 81/02 of 29 June 1981 permit a husband to object to his wife's pursuit of a separate trade or profession. Article 7 of the Commercial Code authorizes a husband to put an end to his wife's economic activity simply by notifying the Registrar of the Commercial Court of his objection.¹¹⁰ In addition, men may restrict their wives' freedom of movement.¹¹¹

Protective legislation is not new and its negative impact on women has been well-documented.¹¹² In line with early reasoning founded on misperceptions about women's capacities and roles, the International Labour Organization (ILO) adopted two early treaties that prohibited women from specific types of work. ILO Convention No. 45 "Underground Work (Women) Convention" (C. 45) prohibits all females from underground work in any mine.¹¹³ ILO Convention 89 "Night Work (Women) Convention (Revised)" prohibited women from working night hours in "industrial undertakings," defined to include, inter alia, "mines, quarries, and other works for the extraction of minerals from the earth."¹¹⁴

¹⁰⁶ICESCR, *supra* note 90, art 10(2).

¹⁰⁷CEDAW, *supra* note 90, art. 11(1)(f), 2, 2(d).

¹⁰⁸International Labor Conference, *Report of the Committee of Experts on the Application of Conventions and Recommendations*, ¶ 6 (2001).

¹⁰⁹WORLD BANK GROUP, *supra* note 104, at 3.

¹¹⁰THE ADVOCATES FOR HUMAN RIGHTS, SUBMISSION ON THE RIGHTS OF WOMEN IN THE REPUBLIC OF CAMEROON TO CEDAW, 57TH SESS., ¶ 11 (Jan. 24, 2014).

¹¹¹Ngala Killian Chimtom, *Keeping the Veil on Women's Electoral Participation*, INTER PRESS SERVICE (Nov. 7, 2012), <http://www.ipsnews.net/2012/11/keeping-the-veil-on-womens-electoral-participation/>.

¹¹²For example, early domestic legislation, including that adopted by England, Switzerland, New Zealand, Austria, the Netherlands, and France in the 19th century, sought to safeguard women's security, morality, health, and the welfare of the family by banning women from night work. International Labor Conference, *Report of the Committee of Experts on the Application of Conventions and Recommendations*, ¶ 3 (2001). Yet, such legal measures were based on perceptions of women's physical strength relative to men, their perceived vulnerabilities, and their traditional role as homemakers. *Id.* at ¶¶ 3–4.

¹¹³International Labour Organization, *Underground Work (Women) Convention*, June 21, 1935, No. 45.

¹¹⁴International Labour Organization, *Night Work (Women) Convention (Revised)* art. 1(a), 2, 3 July 9, 1948, No. 89 Other "industrial undertakings" include: "(b) undertakings in which articles are manufactured, altered, cleaned, repaired, ornamented, finished, adapted for sale, broken up or demolished, or in which materials are transformed, including undertakings engaged in ship-building or in the generation, transformation or transmission of electricity or motive power of any kind; (c) undertakings engaged in building and civil engineering work, including constructional, repair, maintenance, alteration and demolition work." *Id.* art. 1.

The ILO and countries have since recognized the discriminatory impact of such prohibitions.¹¹⁵ C. 45, prohibiting females from underground work in mines, is recognized to be incompatible with principles of non-discrimination and equality of opportunity and treatment. Specifically, occupational and safety health approaches must seek to protect all workers, regardless of sex.¹¹⁶ In 2005, the European Court of Justice determined that the ban on women in mining, as well as the requirements set forth in C. 45, violates the European Directive's prohibition of discrimination based on sex for access to jobs.¹¹⁷ Several states, such as Bulgaria, Kiribati, and Poland, have taken steps to repeal such bans.¹¹⁸ In 2015, Colombia repealed restrictions on employing women in mines and hazardous or arduous jobs.¹¹⁹

Furthermore, when such laws ban women from working in certain jobs with the purported intention of protecting them, it can actually heighten their risks and vulnerabilities. Before Colombia lifted its ban on underground work for women, unemployment compelled many women to work illegally in mines, thus removing them from formal oversight and increasing their vulnerabilities to trafficking and dangerous conditions.¹²⁰ Even with the repeal, many women still work as independent laborers with informal working arrangements with owners of the mines. A non-profit worker described how women arrive at verbal agreements with employers to conduct selective mineral mining, and use what other miners have rejected to collect small pieces of gold. With the exception of Colombia, which has policies in place, and Peru, where policies are under development, there are no regulations for this type of mining activity in most countries.¹²¹ In such informal sectors, when miners are injured or become sick, they lack insurance to cover their health care needs.¹²²

Nevertheless, despite recognition by international and regional bodies, many states still retain discriminatory laws that ban women from certain professions. Nine states in the former Soviet Union (FSU) retain a remnant of the Soviet-era and continue to ban women from hundreds of jobs, like driving trucks weighing more than 2.5 tons on inter-city trips, extinguishing fires, working on heights of more than 10 meters—including assembly on drilling rigs and towers—and working on ocean-based cranes and drilling rigs.¹²³ Kazakhstan is the tenth largest coal-producing country and bans women from 287 professions.

¹¹⁵Discussions by the Governing Body in 1996 and 1999 proffered denunciation of C. 45 as an option for States parties. In 2018, the Standards Review Mechanisms Tripartite Working Group (SRM TWG) discussed whether to classify C. 45 as outdated. See International Labour Organization, Technical Note 1.1: Instruments concerning occupational safety and health in mining 5–6 (Aug. 10, 2018) [hereinafter Technical Note 1.1]. In reviewing Conventions No. 176 and 183 providing protections to both men and women in mining, the Governing Body determined C. 45 to be an interim instrument. International Labour Office, The Standards Initiative: Report of the fourth meeting of the Standards Review Mechanism Tripartite Working Group ¶ 3, GB.334/LILS/3 (Oct. 31, 2018).

¹¹⁶Technical Note 1.1, *supra* note 115, at 5–6, 12–14 (stating C45 should be classified as outdated but delayed withdrawal of the convention until States parties ratify C176).

¹¹⁷Case C-203/03, *Comm'n of the European Communities v. Austria*, 2005 E.C.R. I-00935, at ¶ 65 (opinion). Of the 68 ratifications, 30 member states have since denounced C45. See Technical Note 1.1, *supra* note 115, at 10, 12. Several States Parties have also denounced C89, with the majority explaining that it constituted an “inadmissible discrimination against working women and that the concern for protection which originally inspired the Convention was no longer relevant.” International Labor Conference, *Report of the Committee of Experts on the Application of Conventions and Recommendations*, *supra* note 108, at ¶ 18.

¹¹⁸*Never Done: Labour Laws in 104 Countries Reserve Some Jobs for Men Only*, *ECONOMIST* (May 26, 2018), <https://www.economist.com/finance-and-economics/2018/05/26/labour-laws-in-104-countries-reserve-some-jobs-for-men-only>.

¹¹⁹WORLD BANK GROUP, *supra* note 104, at 37.

¹²⁰*Women at Work in Global Supply Chains*, VERITE, <https://www.verite.org/women-work-global-supply-chains/> (last visited Dec. 26, 2018).

¹²¹Skype interview with Ander Arcos, Alonso, Alliance for Responsible Mining (Colombia) (Sept. 14, 2018).

¹²²*Id.*

¹²³ADC MEMORIA, ALL JOBS FOR ALL WOMEN: GENDER DISCRIMINATION - JOBS BANNED FOR WOMEN 12 (2018).

Russia is the sixth largest coal-producing country and a top oil and gas producer.¹²⁴ Russia protects women against discrimination in the workforce under its Labor Code.¹²⁵ Yet, Article 253 of Russia's Labor Law bans women from 456 professions.¹²⁶ Specifically, Russia's current Labor Code forbids "labor of females on hard, dangerous and/or unhealthy trades as well as working . . ." ¹²⁷ The bar includes prohibiting women from certain mining, welding, drilling, butchering, and diving professions, including repair technician on engineering structures; cleaner of pipes, furnaces and gas conduits; gas rescue teams; offshore crane operators; as well as professional categories such as carpentry, plumbing, and transportation. Despite numerous challenges,¹²⁸ the law remains on the books today.

Iran is another example where *de jure* restrictions limit women's access to employment. Iran has extensive natural resources, ranking first for natural gas reserves and third for oil reserves.¹²⁹ Women in Iran face numerous discriminatory laws and regulations that limit their participation in the job market and in traditionally male-dominated industries. The World Economic Forum's 2015 Global Gender Gap Report ranked Iran 141 out of 145 countries for gender equality.¹³⁰ For instance, Iran's Labor Code prohibits employers from hiring women to "perform dangerous, arduous or harmful work or to carry, manually and without mechanical means, loads heavier than the authorized maximum."¹³¹ Many of the jobs in traditionally male-dominated industries qualify as such. Iran's Civil Code dictates that a husband is the head of the household, and gives husbands control over their wives' economic choices, including her choice of whether or not to work and what types of work to pursue. A man can ban his wife from working if he believes her doing so would be incompatible with the interests of the family.¹³² Under Iran's Passport Law, husbands are also able to control their wives' ability to obtain a passport, which may prevent women from accessing jobs that require travel abroad.¹³³ This is particularly restrictive in the oil and gas industry, where travel to other parts of the region or to offshore oil rigs frequently necessitates having a passport. In addition to the aforementioned laws, there are numerous other laws that prevent women from obtaining certain

¹²⁴Akanksha Gupta, *Coal Giants: The World's Biggest Coal Producing Countries*, MINING TECH. (Mar. 3, 2014), <https://www.mining-technology.com/features/featurecoal-giants-the-worlds-biggest-coal-producing-countries-4186363/>.

¹²⁵*Labor Code of the Russian Federation of 31 December 2001*, NATLEX, <https://www.ilo.org/dyn/natlex/docs/WEBTEXT/60535/65252/E01RUS01> (last accessed Dec. 20, 2018) translating TRUDOVOI KODEKS ROSSIISKOI FEDERATSII [TK RF] [Labor Code] art. 3 (Russ.) ("Everyone shall have equal opportunities to realize his/her labor rights. No one can be constrained in his/her labor rights and freedoms or get any advantages irrespective of sex, race, color of skin, nationality, language, origins, property, social or position status, age, domicile, religious beliefs, political convictions, affiliation or non-affiliation with public associations as well as other factors not relevant to professional qualities of the employee.").

¹²⁶ADC MEMORIAL, ALL JOBS FOR ALL WOMEN, *supra* note 123, at 5.

¹²⁷*Labor Code of the Russian Federation of 31 December 2001*, NATLEX, <https://www.ilo.org/dyn/natlex/docs/WEBTEXT/60535/65252/E01RUS01> (last accessed Dec. 20, 2018) translating TRUDOVOI KODEKS ROSSIISKOI FEDERATSII [TK RF] [Labor Code] art. 253 (Russ.).

¹²⁸A panel from the Committee on the Elimination of Discrimination against Women (CEDAW) reviewed the Labor Code while considering a complaint from a Russian woman who was denied a job working at the helm of a boat. CEDAW found that the Code violated the woman's rights and the panel recommended that Russia review and amend Article 253. See *Russia's List of Banned Jobs for Women Violated Woman's Rights, Needs Amending—UN Experts*, OHCHR (Mar. 15, 2016), <https://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=17226&LangID=E>; see also T. Balmforth, *Barred from Hundreds of Occupations in Russia, a Few Women Fight Back*, RADIO FREE EUROPE RADIO LIBERTY (Apr. 17 2016) <https://www.rferl.org/a/russia-womens-occupations-limited-soviet-law/27680005.html>.

¹²⁹Iran, GAS EXPORTING COUNTRIES FORUM, <https://www.gecf.org/countries/iran> (last accessed Dec. 20, 2018).

¹³⁰WORLD ECONOMIC FORUM, THE GLOBAL GENDER GAP REPORT 2015 9 (2015).

¹³¹*Islamic Republic of Iran: Labour Code*, NATLEX, <https://www.ilo.org/dyn/natlex/docs/WEBTEXT/21843/64830/E90IRN01.htm> (last visited Dec. 20, 2018), translating RUZNAMEHI RASMI JUMHURI ISLAMI IRAN [THE OFFICIAL GAZETTE OF THE ISLAMIC REPUBLIC OF IRAN], Labour Law of 20 Nov. 1990, No. 13387, § 75.

¹³²QUANUNI MADANI [CIVIL CODE] Tehran 1928, art. 1117 (Iran) ("The husband can prevent his wife from occupations or technical work which is incompatible with the family interests or the dignity of himself or his wife.").

¹³³Passport Law of 1973, art. 18 (Iran).

jobs, both directly and indirectly.¹³⁴ Although laws protect women from discrimination in the workplace, they do not apply to hiring or promotions. Many jobs specify gender preferences, especially for technical and managerial jobs.¹³⁵ Between the period of March 2016 and March 2017, only 14.9 percent of Iranian women were in the workforce—compared to 64.1 percent of men—despite the fact that women comprise over 50 percent of university graduates.¹³⁶ A Human Rights Watch report published in 2017 urged the Iranian Government to “immediately adopt comprehensive anti-discrimination laws, eliminate discriminatory provisions in the current legal system, and extend equal protections to women who participate in the job market.”¹³⁷

Despite the international recognition that such laws violate principles of discrimination and equality, states are slow to change their laws. In some of the FSU countries, states have not only retained the Soviet-era prohibitions but taken the additional step of re-organizing them.¹³⁸ Kazakhstan did not repeal the list of prohibited jobs for women, which includes mining, metalwork, construction, despite discussions by ministerial and national commissions to amend or revoke the list.¹³⁹ As of June 2017, however, the government of Kazakhstan indicated it would revise the list.¹⁴⁰ In the case of Russia, it has failed to repeal or review the list of banned jobs even after it was found to violate principles of equality and non-discrimination by the Committee on the Elimination of Discrimination against Women (CEDAW).¹⁴¹

And even when laws are in place to prohibit discrimination against women, how effectively those laws operate depends on implementation. For example, in Peru, a country with a rapidly growing oil industry and large mining industry, laws provide for equality between women and men and prohibit workplace discrimination. Nevertheless, reports show that women's rates of participation in senior levels of employment are low, they are paid less than their male counterparts on average, and discrimination in the workplace, including termination of pregnant women, is common.¹⁴²

Private companies in the extractives industries can change these laws. For example, the women's group at the largest copper producer in Chile has been working hard to be heard by government officials on laws that restrict or hinder women's ability to work in the industry.¹⁴³

¹³⁴Tara Sephri Far, “It’s a Men’s Club”: *Discrimination Against Women in Iran’s Job Market*, HUMAN RIGHTS WATCH (May 25, 2017), <https://www.hrw.org/report/2017/05/25/its-mens-club/discrimination-against-women-irans-job-market>.

¹³⁵*Id.*

¹³⁶*Iran: Women Face Bias in the Workplace*, HUMAN RIGHTS WATCH (May 25, 2017), <https://www.hrw.org/news/2017/05/25/iran-women-face-bias-workplace>.

¹³⁷*Id.*

¹³⁸Uzbekistan, Kyrgyzstan, and Belarus have adapted the list of prohibited jobs by reclassifying them or grouping them in gradations of prohibition levels. ADC MEMORIAL, ALL JOBS FOR ALL WOMEN, *supra* note 123, at 13–15.

¹³⁹*Id.* at 31; Prime Minister of Kazakhstan, *Kazakhstan Will Revise the List of Banned Professions for Women*, PRIME MINISTER OF KAZAKHSTAN (June 13, 2017) <https://primeminister.kz/en/news/all/v-kazahstane-peresmotryat-spisok-zapreshchennih-dlya-zhenshchin-professii-14774>.

¹⁴⁰*Kazakhstan Will Revise the List of Banned Professions for Women*, *supra* note 139.

¹⁴¹Comm. on the Elimination of Disc. against Women, *Views of the Committee on the Elimination of Discrimination against Women under article 7 (3) of the Optional Protocol to the Convention on the Elimination of All Forms of Discrimination against Women (sixty-third session)*, U.N. Doc. CEDAW/C/63/D/60/2013 (March 21, 2016); see also ADC MEMORIAL, ALL JOBS FOR ALL WOMEN, *supra* note 123, at 6-8.

¹⁴²See generally, MINING INDUSTRY HUMAN RESOURCES COUNCIL, *EXPLORING GENDER INCLUSION* (2016); *Women in Energy: Gas, Mining, and Oil*, CATALYST (Nov. 21, 2016), <https://www.catalyst.org/knowledge/women-energy-gas-mining-oil>.

¹⁴³Skype interview with Gladys Smith, International Women in Mining (Sept. 6, 2018); Skype interview with Ander Arcos, Alonso, Alliance for Responsible Mining (Colombia) (Sept. 14, 2018).

Social and Cultural Patterns of Conduct That Discriminate Against Women

While laws are a first place to begin, achieving gender equality depends on more than elimination of legal barriers to participation. Women’s participation in the workplace is a reflection of the laws, attitudes, and norms about women’s role in society. There is a direct correlation between gender equality in society and gender equality in work.¹⁴⁴ Governments hold an obligation to address gender equality and social norms that discriminate against women. Article 5 of CEDAW states that “States Parties shall take all appropriate measures: (a) To modify the social and cultural patterns of conduct of men and women, with a view to achieving the elimination of prejudices and customary and all other practices which are based on the idea of the inferiority or the superiority of either of the sexes or on stereotyped roles for men and women.”¹⁴⁵

At times, harmful customs or superstitions may impede women’s access to the workplace. In South America, superstitions held that if a woman neared the mines, the mine would go dry. In this case, it required targeted outreach to educate the men to open the door to women.¹⁴⁶ In Colombia, women were prevented from working in the emerald mines both because of (now-repealed) legal prohibitions and machismo views that women brought misfortune in the mines.¹⁴⁷

The injection of money and modernization into local communities can lead to social impacts that negatively affect women, such as increasing incidents of domestic violence, trafficking and sexual exploitation, and aggravating gender inequities.¹⁴⁸ Married women who work night shifts with other men or travel for training may encounter resistance and jealousy by spouses.¹⁴⁹ Altered gender roles, where women become the breadwinner, newly independent, or the higher earner, can be difficult for men to accept and aggravate rates of domestic violence.¹⁵⁰

A case study of Papua New Guinea illustrates how cultural norms, land ownership customs, and industry practices perpetuate de facto barriers that prevent women from seeking employment in the oil and gas industry.¹⁵¹ As a small country rich in resources, Papua New Guinea has a dual economy where oil, gas and mining account for almost two-thirds of exports, while a majority of the population depends on subsistence farming. The electoral system is weak, allowing resource companies to take a de facto

¹⁴⁴McKinsey & Co., *WOMEN MATTER: TIME TO ACCELERATE: TEN YEARS OF INSIGHT INTO GENDER DIVERSITY* 37 (2017).

¹⁴⁵CEDAW, *supra* note 90, art. 5.

¹⁴⁶Skype interview with Gladys Smith, International Women in Mining (Sept. 6, 2018).

¹⁴⁷AFR *Women of Colombia’s Emerald Mines Shine after Smashing Taboo*, NEW VISION (Jan. 14, 2018), https://www.newvision.co.ug/new_vision/news/1468974/women-colombias-emerald-mines-shine-smashing-taboo.

¹⁴⁸INT’L FIN. CORP., IPIECA, & U.N. DEV. PROGRAM, *MAPPING THE OIL AND GAS INDUSTRY TO THE SUSTAINABLE DEVELOPMENT GOALS: AN ATLAS* 29 (2017).

¹⁴⁹Macintyre, *supra* note 11, at 30; Joni Parmenter, *Experiences of Indigenous Women in the Australian Mining Industry*, in *GENDERING THE FIELD: TOWARDS SUSTAINABLE LIVELIHOODS FOR MINING COMMUNITIES* 78 (Kuntala Lahiri-Dutt ed., 2011).

¹⁵⁰See THE ADVOCATES FOR HUMAN RIGHTS, *A HOUSE WITH TWO ROOMS: FINAL REPORT OF THE TRUTH AND RECONCILIATION COMMISSION OF LIBERIA DIASPORA PROJECT* 350 (2007).

¹⁵¹Such cultural norms have resulted in what anthropologists refer to as “big man” culture, in which power is not passed down hereditarily but instead is passed from man to man (and never to a woman) as part of a greater power struggle. This “big man” culture has resulted in a lack of women in positions of power; for instance, fewer than ten women have served in Papua New Guinea’s parliament since independence in 1975. *Ridding Papua New Guinea of ‘Big Man’ Culture Will Take Time, Change of Mindsets, Delegate Says, Presenting First Report to Women’s Anti-Discrimination Committee*, UNITED NATIONS (July 22, 2010), <https://www.un.org/press/en/2010/wom1815.doc.htm>; Grant Wyeth, *Big Men, No Women: Politics in Papua New Guinea*, DIPLOMAT (Aug. 11, 2017), <https://thediplomat.com/2017/08/big-men-no-women-politics-in-papua-new-guinea/>.

government role, providing services, jobs, and infrastructure to locals. Cultural norms have created barriers to women assuming roles as decision-makers and have perpetuated the stereotype that women are ineffective leaders.¹⁵² Coupled with the country's land ownership, women face multiple barriers to participation in the oil and gas industry. Ninety-nine percent of land is under customary ownership, which recognizes land rights based on kinship groups, meaning land is owned only by male clan leaders. Pursuant to the Oil and Gas Act, a company must identify the rightful landowning clans in the area where they want to obtain a development license. Once the landowners are identified, representatives of such plans participate in a development forum, where companies commit to provide infrastructure and services to landowners. The Oil and Gas Act also requires that 40 percent of project royalties and equity dividends be paid to the male landowners. Once a development project is established, the companies and government organize meetings and negotiations in the villages, which only men are allowed to attend. Despite their promise to relay women's concerns to the oil companies, male landowners seldom report back on the meeting discussions. As noted above, women are effectively shut out at all levels from interacting with oil and gas industries. Because of this exclusion, there is little opportunity to learn about, let alone apply for, jobs in the oil and gas industry in the country. These examples, in conjunction with low levels of education in the region, result in significant barriers to women entering into the oil and gas industry.¹⁵³

In addition, barriers to women's full and equal participation can be found beyond the workplace and in the community and home. Women do more unpaid work—housework and caretaking—than men. McKinsey Global Institute found that women do three times more uncompensated work than men, which hinders women from reaching their full potential.¹⁵⁴ The proportion of women doing unpaid labor compared to men correlates with both their participation in the workforce and positioning in leadership or management levels.¹⁵⁵ Experts also cite to the “double burden” that many women employees are expected to work between the formal labor sector and unpaid work. In addition to working their regular job, they are often expected to come home and perform housework, agricultural work, or be the primary caretaker of elders or children.¹⁵⁶ As Lahiri-Dutt explains, when women have children, the “gender roles do not change at home.”¹⁵⁷ Social norms often dictate that men can work the night shift and return home to sleep, whereas women work the night shift, come home, and take care of the children.¹⁵⁸

Vulnerabilities of Marginalized Populations

Barriers to women's participation in these industries are also complicated by intersectional discrimination that brings in factors such as race, ethnicity, or immigrant status. One scholar cited a historical example during the 20th century in Japanese mines. Lower-paid jobs on the surface were assigned to Korean women, while

¹⁵²Ridding Papua New Guinea of 'Big Man' Culture, *supra* note 151.

¹⁵³JEN SCOTT ET AL, WORLD BANK, EXTRACTING LESSONS ON GENDER IN THE OIL AND GAS SECTOR: A SURVEY AND ANALYSIS OF THE GENDERED IMPACTS OF ONSHORE OIL AND GAS PRODUCTION IN THREE DEVELOPING COUNTRIES 100–05 (2013).

¹⁵⁴McKinsey & Co., WOMEN MATTER, *supra* note 144, at 38.

¹⁵⁵*Id.*

¹⁵⁶Macintyre, *supra* note 11, at 28; Telephone interview with Kuntala Lahiri-Dutt (Sept. 7, 2018); Bolormaa Purevjav, *Artisanal and Small-Scale Mining: Gender and Sustainable Livelihoods in Mongolia*, in GENDERING THE FIELD: TOWARDS SUSTAINABLE LIVELIHOODS FOR MINING COMMUNITIES 207 (Kuntala Lahiri-Dutt ed., 2011).

¹⁵⁷Telephone interview with Kuntala Lahiri-Dutt (Sept. 7, 2018).

¹⁵⁸*Id.*

underground, higher-paying jobs were distributed to Japanese women.¹⁵⁹ Today, these intersectional complexities persist. In India, indigenous persons dominated the lower-ranking jobs. In South Africa, women holding professional mining jobs tend to be white, while women doing unskilled mining work tend to be black.¹⁶⁰ Industries that strive to address female or other diversity must exercise caution to avoid falling into the “double blind” trap, where policies that include a gender dimension fail to address the needs of other diverse populations or policies that address other diversity fail to include factors aimed at female inclusion.¹⁶¹

Where largescale mining has negative effects on communities, indigenous women tend to experience them more so than indigenous men.¹⁶² For example, research in Australia indicates that common barriers all women may experience based on their sex are exacerbated for indigenous women when they have more caretaking duties for extended family, may have children at an earlier age, may be coming from difficult socio-economic circumstances, and of course, face an additional barrier of racism.¹⁶³ On mining sites in Australia, indigenous women described the displays of unconscious bias levied at them as women minorities, such as heightened scrutiny for performance, provocations directed to them by men, and getting overlooked for promotions in favor of men or non-indigenous women.¹⁶⁴

Similarly, in the Philippines, aggressive mining activities have had negative impacts on indigenous communities, particularly affecting indigenous women in rural areas. As caregivers, local women may experience difficulty gathering food and water for families as a result of displacement from their ancestral lands caused by deforestation and flattening of mountains conducted to make way for mining activities.¹⁶⁵ As homemakers, they may also experience the effects of social disruptions, such as increased incidents of domestic violence, alcohol and drug addiction, gambling, infidelity, and prostitution.¹⁶⁶ While women in these areas may be accustomed to having their own earnings from agriculture, they may find themselves economically displaced with their land used by mining companies.¹⁶⁷ The health of indigenous peoples may also be impacted by contamination of soils and rivers caused by mining accidents, which poses a reproductive health risk to women, such as spontaneous abortion and malformed infants.¹⁶⁸ In particular, the Diwalwal area has been beset by social and environmental problems since the discovery of gold in the early 1980s. While women account for approximately 60 percent of the entire population in the Diwalwal area and are involved in the local mining industry as tunnel owners, entrepreneurs, workers in mines and processing plants, and providers of goods and services, there are no female officials in the field of local governance.¹⁶⁹ Women assemblies established in preparation for the Diwalwal Direct State Development Project have expressed a number of socio-economic, environmental,

¹⁵⁹*Id.*

¹⁶⁰Parmenter, *supra* note 149, at 70 (internal citations omitted).

¹⁶¹See e.g., *id.* at 80.

¹⁶²*Id.* at 67.

¹⁶³*Id.* at 76.

¹⁶⁴*Id.* at 76–77.

¹⁶⁵Farah Sevilla, *Mining and Indigenous Women in the Philippines*, WORLD RAINFOREST MOVEMENT BULLETIN 167 (2011), <https://wrm.org.uy/articles-from-the-wrm-bulletin/section1/mining-and-indigenous-women-in-the-philippines/>.

¹⁶⁶*Id.*

¹⁶⁷JUDY A. PASIMIO, LILAK, *MINING AND VIOLENCE AGAINST RURAL AND INDIGENOUS WOMEN IN THE PHILIPPINES* 8 (2013).

¹⁶⁸Sevilla, *supra* note 165.

¹⁶⁹MARIA LUISA L. JACINTO, WORLD BANK, *WOMEN IN MINING: THE DIWALWAL DIRECT STATE DEVELOPMENT PROJECT* 4, <http://siteresources.worldbank.org/INTOGMC/Resources/336099-1163605893612/jacintodwalwal.pdf> (last visited Dec. 20, 2018).

health and education concerns stemming from mining in the community, including inadequate housing built on slopes and ravines, unsafe working conditions of miners, prevalence of drug addiction, lack of local hospitals, and disinterest in education in favor of livelihood and survival.¹⁷⁰

In meeting the specific needs of indigenous women, mining companies' responses at times aggregate all women together. In Australia's zinc Century Mine, local customs prohibit indigenous women from handling hematite. At the request of local indigenous communities, and with the support of indigenous women, Century Mine developed policies in which women do not touch, come into close contact with, or haul hematite. Where open pits hold vast quantities of hematite, women are relegated to tasks like painting tires or relocated to harder, slower jobs where the ore is being mined. While the mine has made efforts to meet the needs of indigenous women, who appear to support these exclusionary policies, these rules apply to all women, indigenous or not. As a result, non-indigenous women expressed grievances at being subject to policies on customs that do not apply to them.¹⁷¹

The experiences of international migrant female workers working in the mining industry are less-researched.¹⁷² Yet, the vulnerabilities of migrant female workers in general are well-documented. Migration impacts women and men differently; it may fortify stereotypes that restrict women's agency, decision-making power, and aggravate vulnerabilities.¹⁷³ Women migrant workers are at risk of labor exploitation and discrimination in employment; they may face restricted access to health and other services, obstacles to accessing justice, and limited ability to collectively organize.¹⁷⁴ Even in cases where migrant workers can access social services and enjoy social rights, local trade unions do not commonly take into account their needs.¹⁷⁵

Women migrants are generally more likely to move for family-related than labor-related motives; in the mining sector, women are more likely to migrate with their husbands and provide services to male mine workers or the local community than work in a foreign mining industry themselves.¹⁷⁶ Despite being no less skilled than male migrants in OECD countries, women are often relegated to low-status sectors such as domestic and sex industries and are often unable to receive recognition of their skills in sectors where the male workforce is over-represented, such as engineering or mining.¹⁷⁷ One extractive industry that sees female migration for work is in the small-scale and artisanal mining sector, where women often move to mining areas for periods of time, leaving their children in the care of relatives. In such cases, factors, such as change in diet, stress associated with leaving traditional lands, and breaking of social ties, has been linked to negative impacts on women. In Mashonaland, Zimbabwe, a study of effects of rural economic development on women's blood pressure revealed notably elevated levels in mining areas in comparison to areas where large scale agriculture and traditional economic activities took place.¹⁷⁸

¹⁷⁰*Id.* at 5-6.

¹⁷¹Parmenter, *supra* note 149, at 75.

¹⁷²MYLÈNE CODERRE-PROULX, BONNIE CAMPBELL, & ISSIAKA MANDE, INT'L LABOUR OFFICE, INTERNATIONAL MIGRANT WORKERS IN THE MINING SECTOR 12, 16 (2016).

¹⁷³U.N. WOMEN, WOMEN MIGRANT WORKERS' HUMAN RIGHTS 2 (2016).

¹⁷⁴*Id.* at 5.

¹⁷⁵CODERRE-PROULX ET AL, *supra* note 172, at 57.

¹⁷⁶*Id.* at 11.

¹⁷⁷*Id.*

¹⁷⁸JENNIFER J. HINTON ET AL, WORLD BANK, WOMEN IN ARTISANAL MINING: GENDER ROLES AND THE ROAD AHEAD 12 (2003).

Companies Roles and Responsibilities on Female Inclusion

The UN sets forth standards for businesses to exercise due diligence to respect human rights in all their operations. The 2011 UN Guiding Principles on Business and Human Rights present how states and corporations can respect and protect human rights, as well as provide access to remedies. The Guiding Principles clarify that they should implement the principles in a non-discriminatory way “with due regard to the different risks that may be faced by women and men.”¹⁷⁹

All companies, irrespective of “size, sector, location, ownership and structure,” have a responsibility to respect all recognized human rights. The principles clarify that this responsibility is a “global standard of expected conduct” for businesses irrespective of their operational location or states’ implementation of their own human rights obligations.¹⁸⁰ These include the rights enumerated in the various ILO Conventions, ICESCR, and CEDAW related to labor rights, nondiscrimination, health and security of person, food and water safety, cultural rights of indigenous peoples, and the like.¹⁸¹ Guiding Principle 13 outlines a company’s responsibility to respect human rights and to avoid, through its own activities causing or contributing to adverse human rights impacts and to address such impact when they occur.¹⁸² For example, if a mine pollutes the water source of the surrounding communities so that people don’t have safe water for drinking or agriculture, the company has violated the community’s right to safe water and must take steps to address the violation.¹⁸³ Similarly, exposure of mine or rig workers to hazardous working conditions without adequate safety equipment violates the employees’ rights to health and security of person, and remediation and compensation may be required.¹⁸⁴

To accomplish this, the Guiding Principles provide that companies should undertake, and track on an ongoing basis, human rights due diligence to assess actual and potential human rights impacts of their business.¹⁸⁵ Companies also should have in place policies and processes regarding their responsibility to respect human rights, including a specific process to identify, prevent, mitigate, and address impacts of their operations on human rights.¹⁸⁶ These policies should come from the highest senior executive level and should be publicly communicated, both internally and externally.¹⁸⁷ When a company finds it has caused or contributed to a human rights violation, it should provide for or cooperate in an appropriate remediation process.¹⁸⁸ This includes providing for a grievance process at the operations level for employees and members of affected communities to raise concerns about human rights impacts and to seek remedies.¹⁸⁹

¹⁷⁹OHCHR, GUIDING PRINCIPLES ON BUSINESS AND HUMAN RIGHTS: IMPLEMENTING THE UNITED NATIONS “PROTECT, RESPECT, AND REMEDY FRAMEWORK” 1 (2011) [hereinafter GUIDING PRINCIPLES].

¹⁸⁰*Id.* at 13. The Guiding Principles recognize the “role of business enterprises as specialized organs of society performing specialized functions, required to comply with all applicable laws and to respect human rights.” *Id.* at 1.

¹⁸¹OHCHR, THE CORPORATE RESPONSIBILITY TO RESPECT HUMAN RIGHTS: AN INTERPRETIVE GUIDE 13 (2012) [hereinafter CORPORATE RESPONSIBILITY].

¹⁸²OHCHR, GUIDING PRINCIPLES, *supra* note 179, at 14.

¹⁸³OHCHR, CORPORATE RESPONSIBILITY, *supra* note 181, at 13.

¹⁸⁴*Id.* at 17.

¹⁸⁵GUIDING PRINCIPLES, *supra* note 179, at 17–18.

¹⁸⁶*Id.*, at 15–16.

¹⁸⁷CORPORATE RESPONSIBILITY, *supra* note 181, at 26–30.

¹⁸⁸GUIDING PRINCIPLES, *supra* note 179, at 24–25.

¹⁸⁹CORPORATE RESPONSIBILITY, *supra* note 181, 67–69.

The Guiding Principles highlight the importance of gender throughout the instrument. They are explicit in their expectation that businesses assess any adverse impacts as a result of their activities, bearing in mind the “different risks that may be faced by women and men.”¹⁹⁰ As summarized by the UN Working Group on Business and Human Rights:

“the commentary to Principle 3 of the UNGPs provides that States should provide appropriate guidance to businesses on “how to consider effectively issues of gender, vulnerability and/or marginalization,”¹⁹¹ while Principle 7 underlines that States should provide adequate assistance to business enterprises operating in conflict affected areas “to assess and address the heightened risks of abuses, paying special attention to both gender-based and sexual violence.”¹⁹² The commentary to Principle 12 of the UNGPs reads: “Depending on circumstances, business enterprises may need to consider additional standards.”¹⁹³

Corporate investment in effective diversity programs can not only ensure laws are effectively implemented, but also impact retention and morale. When women find there are other women in mining groups, there are role models, a career path, and people who will support them, it increases the reasons for women to stay.¹⁹⁴ As illustrated by International Women in Mining representatives, “in groups, women have a voice, and it no longer feels lonely to put up a hand.”¹⁹⁵ With greater female diversity, women do not feel as isolated.¹⁹⁶

Unconscious Bias

Along the spectrum of women’s participation in the workforce—from recruitment to retention to advancement—corporations have the opportunity to remove barriers and put in place supportive policies. Throughout every stage, attention to unconscious bias is imperative.

Unconscious bias hinders women’s advancement but is challenging to both identify and prevent.¹⁹⁷ The ILO defines unconscious gender bias as “unintentional and automatic mental associations based on gender, stemming from traditions, norms, values, culture and/or experience.”¹⁹⁸ Indeed, the ILO found the second most common barrier to women’s leadership in business to be social gender roles.¹⁹⁹

¹⁹⁰GUIDING PRINCIPLES, *supra* note 179, at 1.

¹⁹¹*Id.* at 5.

¹⁹²*Id.* at 9.

¹⁹³*Id.* at 4.

¹⁹⁴Telephone interview with Mining Industry Employee (Oct. 4, 2018); Skype interview with Barbara Dischinger, Camila Reed, & Deborah Craig, International Women in Mining (Sept. 10, 2018).

¹⁹⁵Skype interview with Gladys Smith, International Women in Mining (Sept.6, 2018).

¹⁹⁶*Id.*

¹⁹⁷INT’L LABOUR ORG., *BREAKING BARRIERS: UNCONSCIOUS GENDER BIAS IN THE WORKPLACE* (2017) [hereinafter ILO, *BREAKING BARRIERS*].

¹⁹⁸*Id.* at 3.

¹⁹⁹*Id.*

Furthermore, working mothers face double bias based on their sex and motherhood. Other colleagues may view working mothers as not as dedicated to their careers.²⁰⁰ One worker from the oil rigs described how she worked as an operator before having a child. After giving birth, she stated, “I felt that I had to work twice as hard to prove I deserved the job when I got back.”²⁰¹ One mining expert affirmed this misperception, observing that some companies do not hire women of a certain age because they think she will get married, have children, and stop working.²⁰² This stereotype can negatively affect women’s earnings; one study found that when working mothers were recommended for employment, their starting salaries were lower than equally qualified childless women by U.S. \$11,000.²⁰³

Pre-recruitment

Despite various initiatives, a lack of female representation in the fields of science, technology, engineering, and mathematics (STEM) persists.²⁰⁴ Women remain a minority in the STEM fields despite trends that should be propelling more women into the field.²⁰⁵ In the U.S., for example, women account for approximately 35 percent of undergraduate degrees in STEM subjects, a number that has remained unchanged for the past decade, even though they account for almost 60 percent of college graduates.²⁰⁶ In some STEM fields—physics, engineering, and computer science in particular—women are earning only 20 percent of undergraduate degrees, and women’s representation in science and engineering declining further at the graduate level and yet again in the transition to the workplace.²⁰⁷ According to the latest U.S. census, only one in seven women with a degree in STEM actually works in that area, a statistic that holds true for most countries.²⁰⁸

Studies suggest that girls are at a disadvantage in STEM as a result of the interaction of multiple factors embedded in both socialization and learning processes. These factors include social, cultural, and gender norms, which influence the way girls and boys are brought up, learn, and interact with parents, family, friends, teachers, and the wider community. These factors shape their identity, beliefs, behavior, and choices, including the idea that STEM are “masculine” topics and that female ability in this field is innately inferior to that of males.²⁰⁹ Such factors can be broadly categorized into three key areas: (i) aspirations that are molded by social norms and parental expectations; (ii) information failures that

²⁰⁰McKinsey & Co., *WOMEN MATTER*, *supra* note 144, at 39.

²⁰¹Zoom interview with Pink Petro (Sept. 14, 2018).

²⁰²Skype interview with Gladys Smith (Sept. 6, 2018); Shelly J. Correll, Stephen Benard, & In Paik, *Getting a Job: Is There a Motherhood Penalty?*, 112 *Am. J. Soc.* 1297 (2007).

²⁰³Correll, *supra* note 202.

²⁰⁴Adriana Kugler, Catherine Tinsley, & Olga Ukhaneva, *Why There Aren’t More Women in STEM Fields*, VoxEU (Nov. 2, 2017), <https://voxeu.org/article/why-there-arent-more-women-stem-fields>.

²⁰⁵Ana Maria Munoz-Boudet, *STEM Fields Still Have a Gender Imbalance. Here’s What We Can Do About It*, WORLD ECON. FORUM (Mar. 16, 2017), <https://www.weforum.org/agenda/2017/03/women-are-still-under-represented-in-science-maths-and-engineering-heres-what-we-can-do>. At least in developed countries, as many girls as boys are completing secondary level education, and more women graduate from university worldwide than men. *Id.*

²⁰⁶*Id.*

²⁰⁷CATHERINE HILL, CHRISTIANNE CORBET, & ANDRESSE ST. ROSE, *AM. ASS’N UNIVERSITY WOMEN, WHY SO FEW? WOMEN IN SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS*, at xvi (Feb. 2010).

²⁰⁸Munoz-Boudet, *supra* note 205.

²⁰⁹UNESCO, *CRACKING THE CODE: GIRLS’ EDUCATION IN SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS (STEM): REPORT OF THE UNESCO INTERNATIONAL SYMPOSIUM AND POLICY FORUM 8 (2017)* [hereinafter UNESCO, *CRACKING THE CODE*].

affect the decision to enter and stay in a STEM field; and (iii) institutional factors that constrain women's ability to enter a STEM job.²¹⁰ Positive change requires holistic and integrated responses to such issues at the individual, family, school, and societal levels, and it demands engagement from stakeholders at each of these levels.²¹¹ For example, at the school level, teaching quality, female STEM teachers for female students, equal expectations of female and male students, gender balanced curricula that take account of girls' interests, hands-on activities and real-world learning opportunities, non-gender biased methods of assessment, and supportive learning environments and mentorship programs have all been shown to have a positive influence on girls' interest, confidence, and self-efficacy in STEM subjects.²¹²

Initiatives are in place in many countries to encourage women and girls to consider STEM careers. For example, in Ghana, the Soronko Foundation's Tech Needs Girls program focuses on the importance of mentorship in encouraging girls to lead and innovate in the field of technology and has trained 4,500 girls by matching them with 200 computer scientist and engineer mentors and role models.²¹³ In the extractive industries, Shell has sought to address the endemic gender imbalance in the United Kingdom with its experimental Girls in Energy program, aimed at girls aged between 14–16, which endeavors to break down common pre-conceived ideas of oil and gas industry jobs by providing participants with real-life experience of working in the energy industry.²¹⁴ While such initiatives are a positive first step, their impact on increasing numbers of women in STEM-related industries at the highest levels remains to be seen.

Recruitment

Recruitment of all candidates should be based on objective and transparent processes that do not discriminate against women.²¹⁵ Companies should scrutinize their processes of recruitment for unconscious bias, beginning with job descriptions. How job descriptions are worded and what they require can underscore stereotypes and perpetuate gender bias.²¹⁶ A talent acquisition leader cautioned against the tendency to impose job requirements that are modeled not after the job's requirements but the person who has held the job and who is likely to have been male. She explained:

“A lot of companies been around for long time, and the leadership are male, because that is who was working when business started. And if you promote from them and within, which is historically how companies do it, then all you do is get the same men getting promoted from within. So you don't have the women to infuse women at different levels to question the logic as to how they are.”²¹⁷

²¹⁰Munoz-Boudet, *supra* note 205.

²¹¹UNESCO, *CRACKING THE CODE*, *supra* note 209.

²¹²*Id.*

²¹³Tech Needs Girls, SORONKO FOUNDATION, <http://www.soronkosolutions.com/tng.html> (last visited Dec. 26, 2018).

²¹⁴*Encouraging More Women into the Energy Industry*, SHELL, <https://www.shell.co.uk/about-us/latest-news-and-features/2015-news-and-features/encouraging-more-women-into-the-energy-industry.html> (last visited Dec. 26, 2018).

²¹⁵Skype interview with Ander Arcos, Alonso, Alliance for Responsible Mining (Colombia) (Sept. 14, 2018).

²¹⁶ILO, *BREAKING BARRIERS*, *supra* note 197, at 6; Telephone interview with Corporate Executive, Fortune 500 Corporation (Sept. 7, 2018).

²¹⁷Telephone interview with Corporate Executive, Fortune 500 Corporation (Sept. 7, 2018).

As a result, companies may unintentionally exclude women because they have historically been filled with and promoted men, thus injecting a male dimension into job descriptions.²¹⁸ How a job is worded can encourage or discourage women applicants. For example, limiting the list of mandatory job requirements may encourage female candidates, as research shows that women are less likely than men to apply unless they meet all job requirements.²¹⁹ As Pink Petro states, the industry should focus beyond simply recruitment, but on messaging a positive employee experience and the benefits their work brings to the world.²²⁰ Additionally, a company needs to be deliberate and recruit women for STEM jobs. As a retired oil company manager stated, a company needs “to get its female engineers and tech people to schools, conferences, and fairs as recruiters to target potential female employees—it shows you care.”²²¹

Diversity on selection and hiring panels is important and helps address in-group favoritism.²²² When hiring, people tend to look for someone who is relatable, who they like, who they could have coffee with—which often means that people tend to recruit people like themselves.²²³ In addition, unconscious bias and assumptions about a woman’s plans to have children or to place household responsibilities ahead of career are more apt to result in non-diverse hiring when selection or hiring panels themselves are not diverse.²²⁴ Without diversity on hiring panels or in the selection process, companies will risk ending up with the same—more men.²²⁵

Quotas

Some states and private companies use quotas to increase female participation. For example, South Africa introduced quotas to promote female inclusion in the mining industry. In its Broad-Based Socio-Economic Empowerment Charter, it set a 10 percent female participation rate in the mining sector within five years of the 2002 charter.²²⁶ In Chile, the government with the assistance of UNDP has developed a procedure where the government sets the standards in the community fields and establishes the expectation for women to be in the workforce.²²⁷ Many women often see quotas for boards as a positive step.²²⁸ Indeed, quotas can be a potential solution when mandating female inclusion from the lower levels on up to the decision-making level compels companies to onboard.²²⁹

²¹⁸*Id.*

²¹⁹Carmen Nobel, *How to Take Gender Bias Out of Your Job Ads*, FORBES, Dec. 14, 2016, <https://www.forbes.com/sites/hbsworkingknowledge/2016/12/14/how-to-take-gender-bias-out-of-your-job-ads/#e34ce011024c>; Maxwell Huppert, *5 Must-Do's for Writing Inclusive Job Descriptions*, LINKEDIN TALENT BLOG (Apr. 9, 2018), <https://business.linkedin.com/talent-solutions/blog/job-descriptions/2018/5-must-dos-for-writing-inclusive-job-descriptions>.

²²⁰Zoom interview with Pink Petro (Sept. 14, 2018).

²²¹Telephone interview with retired oil services company manager (Oct. 15, 2018).

²²²See HUNT ET AL, *DIVERSITY MATTERS*, *supra* note 34, at 15.

²²³Telephone interview with Corporate Executive, Fortune 500 Corporation (Sept. 7, 2018).

²²⁴Zoom interview with Pink Petro (Sept. 14, 2018).

²²⁵Telephone interview with Corporate Executive, Fortune 500 Corporation (Sept. 7, 2018).

²²⁶Broad-Based Socio-Economic Empowerment Charter for the South African Mining Industry, Oct. 10, 2002. It did not meet this goal, instead achieving 10.5 percent participation in 2014. See Green, *supra* note 81.

²²⁷Skype interview with Guyana Women Miners Organization (Aug. 31, 2018).

²²⁸Skype interview with Barbara Dischinger, Camila Reed, & Deborah Craig, International Women in Mining (Sept. 10, 2018).

²²⁹Skype interview with Guyana Women Miners Organization (Aug. 31, 2018).

Some considerations should be taken into account, however, when using quotas. Some women harbor concerns about the potential for tokenism.²³⁰ For example, a talent management and acquisition leader at a global agricultural company explained that mandatory quotas may convey a message that “we are going to lower our standards to hire a woman.”²³¹

It is important that the industry recognize that mandatory quotas alone are not sufficient to support women. Quotas can also result in a rote check-the-box approach, where companies aim to meet the numerical goal but little else.²³² One mining non-profit organization noted how women had representation on boards, but their participation was limited to an observer role.²³³ It can also provide a false sense of achievement toward gender equality merely by the presence of women, thus stoppering other initiatives to undo gender bias and discrimination.²³⁴ Lahiri-Dutt explains further that simply meeting quota hire goals is not enough but requires efforts to support and advance women after they are in the front door. She observed female mining engineers who joined operations departments in mining companies, but later moved laterally to environmental departments or elsewhere.²³⁵ She surmised that women transfer to so-called softer departments because they see their career prospects as limited in operations department where men dominate the decision-making positions.²³⁶

Imaging, Norms, and Effects on Recruitment

As a mining company employee stated, the mining industry, like the technology industry, is perceived by up and coming college students as a “male industry.”²³⁷ The oil and gas industry likewise is perceived as “requiring long hours, being dirty, and being a man’s job.”²³⁸ The entire extractive industries sector continues to be widely regarded as male-dominated, both in workforce and in industry culture. Gender-biased corporate recruitment and employment policies continue to hinge on outdated gender stereotypes that women are unsuitable for the work. With the increase in technology and automated operations, however, the traditional argument that women lack the physical skill to do the work is not always relevant. Companies thus should examine the images and messaging they convey to the public. New recruits are not only looking at people on-the-ground but in the board room and at senior levels. Research shows a positive correlation between the number of women at the board level and how appealing women find that industry.²³⁹ In contrast, male-dominated senior positions and boards convey a message of male-manager thinking,²⁴⁰ which may deter potential female candidates. As a retired oil

²³⁰Skype interview with non-profit women’s mining organization (Sept. 10, 2018) (citing women who have shared concerns about quotas with them).

²³¹Phone interview with Corporate Executive, Fortune 500 Company (Sept. 7, 2018).

²³²See Green, *supra* note 81.

²³³Skype interview with Guyana Women Miners Organization (Aug. 31, 2018).

²³⁴ILO, *BREAKING BARRIERS*, *supra* note 197, at 5.

²³⁵Skype interview with Kuntala Lahiri Dutt (Sept. 7, 2018).

²³⁶*Id.*

²³⁷Telephone interview with Mining Company Employee (Oct. 4, 2018).

²³⁸Telephone interview with retired oil services company manager (Oct. 15, 2018).

²³⁹CENTER FOR WOMEN IN POLITICS AND PUBLIC LEADERSHIP, CARLTON UNIVERSITY, *THE PATHWAY FORWARD: CREATING GENDER INCLUSIVE LEADERSHIP IN MINING AND RESOURCES* 30 (2012).

²⁴⁰ILO, *BREAKING BARRIERS*, *supra* note 197, at 5.

company manager stated, although she was recruited out of engineering school for a job serving oil rigs where she was the only woman on the rig, she saw senior women in the corporate headquarters and she knew those women would have her back.²⁴¹

Celebrating women's achievements through diversity messaging is important. With strong female role models, more women may be encouraged to join the industry, thereby increasing the pipeline to management and strengthening the talent pool, while reinforcing the positive role of diversity through the company.²⁴² Company photos, quotes, and the people who appear on internet searches are now accessible to and influence would-be applicants.²⁴³ According to an executive director of a diversity organization, "representation matters, but it has to be meaningful."²⁴⁴ When championing female role models, companies should also include guidance for women to develop their personal brand and connect to professional networks and opportunities. They should also strive to profile diversity within female role models.²⁴⁵ Instead of using token stock images to show diversity, the executive director recommends highlighting people who are both diverse and actual champions.²⁴⁶ For example, the National Diversity Council highlights the 50 most powerful women in oil and gas each year. Using a set of standards, the council seeks candidates who are top leaders, contributors to business growth or strategic directions, have a record of achievements in areas of expertise, are inspiring role models and mentors to other women, demonstrate integrity and ethical behavior, and have a commitment to corporate citizenship.²⁴⁷ A retired oil company manager emphasized that the industry needs to let females know that there are female role models in their companies and that they won't be the only female on the rig or in the office.²⁴⁸ The Guyana Women Miners Organization described their efforts to celebrate the journeys of women in mining to help normalize the concept. They will highlight different women in mining through their bimonthly newspaper feature of women in mining, and in doing so, "start to humanize it and ensure that persons understand that success is not just limited to those going in suits and ties."²⁴⁹ The International Women in Mining's (IWIM) Photo Competition seeks to create an online photo gallery of women working in mining to provide role models, demonstrate the spectrum of jobs women hold in the sector, illustrate the increased rates of female participation, and help shift the culture of a male-dominated sector.²⁵⁰

A diversity director stressed the importance of authentic and honest representations; to her, when women of color are more candid about the positive and challenging aspects of their work environment, it resonates with other women who are more likely to believe them and believe these women leaders will be supportive of them.²⁵¹

²⁴¹Telephone interview with retired oil services company manager (Oct. 15, 2018).

²⁴²WOMEN IN MINING (UK) & PRICEWATERHOUSECOOPERS, MINING FOR TALENT 2015: A REVIEW OF WOMEN ON BOARDS IN THE MINING INDUSTRY 2012–2014 29 (2015) [hereinafter MINING FOR TALENT 2015].

²⁴³Telephone interview with Corporate Executive, Fortune 500 Corporation (Sept. 7, 2018).

²⁴⁴Telephone interview with Twin Cities Diversity in Practice, (Sept. 12, 2018).

²⁴⁵PRICEWATERHOUSECOOPERS, ADVANCING WOMEN IN MINING AND RESOURCES IN SINGAPORE 20 (June 2016).

²⁴⁶Telephone interview with Twin Cities Diversity in Practice (Sept. 12, 2018).

²⁴⁷50 Most Powerful Women in Oil and Gas, OIL & GAS DIVERSITY COUNCIL, <http://oilgasdiversitycouncil.org/what-we-do/recognition/top50/> (last visited Dec. 20, 2018).

²⁴⁸Telephone interview with retired oil services company manager (Oct. 15, 2018).

²⁴⁹Skype interview with Guyana Women Miners Organization (Aug. 31, 2018).

²⁵⁰See *IWIM Photo Campaign*, INTERNATIONAL WOMEN IN MINING, http://internationalwim.org/_media/iwim-photo-gallery/ (last visited Dec. 20, 2018).

²⁵¹Telephone interview with Twin Cities Diversity in Practice (Sept. 12, 2018).

Diversity Policies

Companies should consider setting their own gender diversity targets for dissemination to educate employees on the benefits of diversity, raise awareness levels, and ensure that diversity is one of the considerations when considering appointments, policies, and strategies.²⁵² To achieve such targets, companies may consider facilitating a workplace culture that takes into account domestic responsibilities of employees, facilitating training to staff who are from diverse backgrounds, recruiting from a diverse pool of candidates for all positions (including senior management and board appointments), and reviewing succession plans to ensure an appropriate focus on diversity.²⁵³ To further improve effectiveness, such self-imposed regulation should also be coupled with meaningful tracking and accountability in order for the changes needed and the results to be achieved.²⁵⁴ For instance, companies may consider creating a remuneration and nomination committee on the boards to develop and implement measurable objectives and strategies to execute the diversity policy, as well as monitor and report on progress. Companies may also consider including such measureable objectives in annual performance indicators for senior management. In addition, the remuneration and nomination committee should also conduct board appointment processes in a manner that promotes gender diversity, including establishing a structured approach for identifying a pool of candidates, using external experts where necessary.²⁵⁵

Board evaluation reviews

When completed properly, board evaluations can identify areas of strengths and weakness, fostering changes that positively impact performance and shareholder value. They can also provide independent and impartial advice, objectivity and rigor, particularly when those boards are open to external reviews.²⁵⁶ In particular, such evaluations should be a continuous and ongoing process that meets the needs of the individual company and its circumstances. Evaluations should assess the composition and diversity of the board, and include the assessment of both the committees and individual board members.²⁵⁷

Broadening perspectives on educational backgrounds

The assumption that mining-related degrees are necessary for success in the extractive industry is often ill-conceived. Although this is arguably true in the fields of mining, engineering, geophysics, geochemistry, metallurgy, and other technical subjects, a large proportion of people working in the mining industry at all levels do not have a technical background. Non-technical expertise can also be of key importance to management positions, including the following business areas: strategy, legal, business development, investor relations, accounts, marketing, and communications.²⁵⁸ Generally, competency-based, rather than industry-based, recruitment (which focuses on how well a candidate can execute a role), should comprise a basis for hiring. For boards, recruiting should be conducted outside traditional mining networks on the basis of board criteria and not solely on board and CEO experience within the mining sector.²⁵⁹

²⁵²MINING FOR TALENT 2013, *supra* note 29, at 22.

²⁵³*Diversity Policy*, DRAGON MINING, http://www.dragonmining.com/static/files/11/dra_diversity_policy_final_dec_2010-2.pdf (last visited Dec. 20, 2018).

²⁵⁴MINING FOR TALENT 2013, *supra* note 29, at 22.

²⁵⁵*Diversity Policy*, DRAGON MINING, *supra* note 253.

²⁵⁶MINING FOR TALENT 2013, *supra* note 29, at 22.

²⁵⁷OECD, BOARD EVALUATION: OVERVIEW OF INTERNATIONAL PRACTICES 6–7 (2018).

²⁵⁸MINING FOR TALENT 2013, *supra* note 29, at 23.

²⁵⁹MINING FOR TALENT 2015, *supra* note 242 at 30.

Retention

Inclusive career development programs and networks

Companies should consider implementing development programs and networks that can help women identify a career path in the company early on. Gender inclusive networks that see women gaining equal access to traditionally male-focused networking activities should also be considered, with the aim of reducing the “male networks” from which women may be excluded. In addition, gender responsive mentoring programs can help candidates define their career goals, while being sensitive to the different long term career paths of women.²⁶⁰

A transparent promotion system can clearly communicate to women the necessary steps to progress to the next level. When new to the sector, companies must provide women with information of all possible jobs they could be performing, the required criteria to get those jobs, and the steps they can undertake, with or without the company’s support, to meet these criteria.²⁶¹

Establishing systems for work-life balance

Establishing systems that promote a work-life balance is important to sectors, where female directors or CEOs may be under-represented. Work-life balance can encourage employee productivity and support employees’ management of their work and home responsibilities. Research shows that women often struggle with work-life balance, creating a barrier for them to achieve higher positions. Studies show that working environments that suit employees’ personal working styles can lead to more energized, motivated, and productive employees. Such programs should be balanced and monitored, however, to ensure it is meeting the needs of the companies.²⁶²

Advancement

Performance Evaluations

Companies should scrutinize their performance evaluations for potential bias that favors one sex over the other. Performance indicators may unintentionally reflect masculine traits of leadership or male bias. For example, McKinsey found that whereas men are typically evaluated for their future potential, women are typically scrutinized based on their past achievements.²⁶³ One analysis of individual performance reviews found that women were 1.4 times more likely to receive negative and subjective feedback than men.²⁶⁴ Unconscious biases can feed into reviews, modifying the perceptions of how women and men behave in the same situation. For example, women may be seen as stuck in “analysis paralysis” versus a man in the same scenario who is viewed as a careful thinker.²⁶⁵

²⁶⁰*Id.* at 29.

²⁶¹LONMIN PLC. & INT’L FIN. CORP., *WOMEN IN MINING: A GUIDE TO INTEGRATING WOMEN INTO THE WORKFORCE* 32 (2009).

²⁶²MINING FOR TALENT 2015, *supra* note 242, at 30.

²⁶³McKINSEY & Co., *WOMEN MATTER*, *supra* note 144, at 39.

²⁶⁴Paola Cecchi-Dimeglio, *How Gender Bias Corrupts Performance Reviews, and What to Do about It*, HARV. BUS. REV. (Apr. 12, 2017), <https://hbr.org/2017/04/how-gender-bias-corrupts-performance-reviews-and-what-to-do-about-it>.

²⁶⁵*Id.*

Companies should also evaluate expectations that favor men’s traditional roles and lifestyles over women. The corporate “anytime, anywhere” model places disproportionate burdens on women who labor under the double burden.²⁶⁶ The expectation that strong performance requires availability and mobility at any time burdens women who already shoulder housework and caretaking.²⁶⁷ For example, one company used “unfailing availability and total geographical mobility” as a leadership indicator.²⁶⁸ Yet, “fly in/fly out” formats tend to attract single men or married men with a spouse who can care for the family back home.²⁶⁹ In effect, it marginalizes women who bear unpaid work responsibilities outside of the workplace.²⁷⁰ In contexts where women already face inequities, rewards and promotions may go to those employees who benefit from socio-economic or other advantages over women and other minority figures.²⁷¹

Project Assignments

Supervisors and senior managers should also evaluate how they allocate highly desired assignments. Women engineers are 20 percent less likely than white men to secure sought-after projects. When coupled with race, their chances diminish further. Female minority engineers are 35 percent less likely than white men to get such assignments.²⁷² Instead, women are relegated to projects that are more invisible or unlinked to revenue.

Women do not enjoy the same access to highly desired assignments for a number of reasons. Misperceptions and stereotypes about gender roles may influence how managers distribute projects. When supervisors do not know their employees or their staff lack the training or experience, then they may assign projects based on assumptions instead of actual skills.²⁷³ Assigning based on skill sets, however, can help promote women’s inclusion. For example, BHP in its new Brisbane logistics control centre, recruited people based on matched skills instead of mining experience alone. Women now make up 53 percent of that workforce.²⁷⁴

Women may also be misperceived as not wanting the high-profile projects even when they do desire them.²⁷⁵ Stereotypes set expectations that women are “modest, helpful, and communal” and often volunteer for the less desirable and undervalued tasks.²⁷⁶ At times, employers assign women certain projects based on perceptions that women are better at tasks like organizing or event planning.²⁷⁷ Doing so creates the expectation that women should accept and thrive with such projects while men’s time is

²⁶⁶McKINSEY & Co., WOMEN MATTER, *supra* note 144, at 39; see also Telephone interview with retired oil services company manager (Oct. 15, 2018).

²⁶⁷McKINSEY & Co., WOMEN MATTER, *supra* note 144, at 39.

²⁶⁸McKINSEY & Co., WOMEN MATTER: GENDER DIVERSITY, A CORPORATE PERFORMANCE DRIVER 7 (2007).

²⁶⁹Macintyre, *supra* note 11, at 24; Telephone interview with Mining Company Employee (Oct. 4, 2018).

²⁷⁰ILO, BREAKING BARRIERS, *supra* note 197, at 4.

²⁷¹*Id.*

²⁷²Joan C. Williams & Marina Multhaupt, *For Women and Minorities to Get Ahead, Managers Must Assign Work Fairly*, HARV. BUS. REV. (Mar. 5, 2018), <https://hbr.org/2018/03/for-women-and-minorities-to-get-ahead-managers-must-assign-work-fairly>.

²⁷³ILO, BREAKING BARRIERS, *supra* note 197, at 4.

²⁷⁴Andrew Mackenzie, *No Silver Bullet But Great Progress on Gender Balance*, PROSPECTS (Sept. 18, 2017),

<https://www.bhp.com/media-and-insights/prospects/2017/09/no-silver-bullet-but-great-progress-on-gender-balance>.

²⁷⁵Williams & Multhaupt, *For Women and Minorities to Get Ahead*, *supra* note 272.

²⁷⁶*Id.*

²⁷⁷Telephone interview with former oil services company manager (Oct. 15, 2018) (discussing how getting “promoted” to catalogue all available information and converting it to computer was a “girl job,” similar to being a “librarian” that she was selected for because of her perceived attention to detail).

saved for “more remunerative work.”²⁷⁸ Furthermore, working mothers face an additional barrier when the workplace assumes their commitment has changed and redistributes their work or clients during their maternity leave, leaving women to struggle to recover their work gains made prior to their leave.²⁷⁹

Leadership Pipeline

Companies should be aware of obstacles to career advancement for women. Women and men identify different barriers to leadership for women. On the one hand, women see inadequate support and overlooking of female candidates as impeding their path to leadership. On the other hand, men cited the insufficient pool of women candidates and women’s lack of flexibility.²⁸⁰

Leadership development programs specifically directed at women are under some debate. Some see that women’s unique barriers require a gender-specific approach. Others argue that women-centered leadership trainings reinforce the concept the female and male leadership are different, overlook the basic traits that good leaders have regardless of sex, and perpetuate the same challenges instead of fostering engagement and learning between women and men.²⁸¹ Regardless if the program is gender-specific or -neutral, the ILO found that women and men do not enjoy equal access to leadership development programs.²⁸² For example, only 27% of men in a North American survey reported never having a substantive interaction with senior leadership, compared to 33 per cent of all women.²⁸³

Training

Education and skills training are critical to providing women with equal opportunities to participate in the artisanal and small-scale mining sector.²⁸⁴ Access to quality childhood education is important in breaking intergenerational poverty cycles, delaying marriage and childbearing, and improving employment opportunities later in life.²⁸⁵ Adult vocational training and life skills development programs are also a component of women’s empowerment.²⁸⁶ Nevertheless, a significant issue, particularly at the local level, is the absence of appropriate education and training to enable anyone to enter the mining sector.²⁸⁷ In Malawi, for example, even when women and men earn degrees in relevant fields, the standard of education they receive is not equivalent to the education obtained in a mature mining country. As a result, jobs at new, large-scale mines are filled by expatriates.²⁸⁸ Gender bias can also create an addition barrier for women; for example, one scholar found that employers in South Africa typically offered training opportunities, as well as employment, only to males.²⁸⁹

²⁷⁸Williams & Multhaupt, *For Women and Minorities to Get Ahead*, *supra* note 272.

²⁷⁹*Id.*

²⁸⁰Lydia DePilis, *Oil and Gas Efforts to Recruit Women Aren’t Working*, *supra* note 30.

²⁸¹U.N. WOMEN, *STATUS OF WOMEN IN THE UNITED NATIONS SYSTEM*, 2016 19 (2016).

²⁸²ILO, *BREAKING BARRIERS*, *supra* note 197, at 5.

²⁸³McKinsey & Co., *WOMEN IN THE WORKPLACE*, 2018 15 (2018).

²⁸⁴INTERGOVERNMENTAL FORUM, *WOMEN IN ARTISANAL AND SMALL-SCALE MINING: CHALLENGES AND OPPORTUNITIES FOR GREATER PARTICIPATION* 5 (Apr. 2018);

ABIGAIL HUNT & EMMA SAMMAN, *WOMEN’S ECONOMIC EMPOWERMENT: NAVIGATING ENABLERS AND CONSTRAINTS* (Sept. 2016).

²⁸⁵HUNT & SAMMAN, *WOMEN’S ECONOMIC EMPOWERMENT*, *supra* note 284, at 12.

²⁸⁶*Id.*

²⁸⁷WOMEN IN MINING: CAN A MINING LAW UNLOCK THE POTENTIAL OF WOMEN 35 (May 2017).

²⁸⁸*Id.* See also BUSISIWE RITA MASHIANE, *TRANSFORMATIONAL BARRIERS AGAINST WOMEN’S ADVANCEMENT IN SOUTH AFRICA PLATINUM MINING COMPANIES* 19 (2009).

²⁸⁹MASHIANE, *TRANSFORMATIONAL BARRIERS AGAINST WOMEN’S ADVANCEMENT IN SOUTH AFRICAN PLATINUM MINING COMPANIES*, *supra* note 288.

Because of the hazards inherent in mining jobs, it is important that all employees, including women, have regular access to job-specific skills' training, such as the correct biomechanics when operating heavy machinery and using heavy and/or vibrating power tools.²⁹⁰ Because women are generally in subordinate positions, they often lack the access and resources to develop their capacity through education and training.²⁹¹

Further, sexual harassment training should be provided to both men and women on an ongoing basis to inform them about sexual harassment in the workplace, what their rights are, who they should contact, and the consequences.²⁹² All employees should be informed of the grievance process in the event of sexual harassment. In addition, trainings on all women-related policies and procedures should be organized for all staff during each induction cycle, with specialized training for line management and/or supervisors assigned to investigate grievance cases.²⁹³

Mentorships and Sponsorships

Some companies are rethinking the traditional mentorship scheme in favor of formalized sponsorships. Informal mentorships run the risk of lacking authenticity and commitment to engage beyond short meetings over lunch.²⁹⁴ As a retired oil company manager explain, informal programs that pair employees who do not work together or know the type of work they do, coupled with infrequent and unplanned meetings, is a recipe for failure.²⁹⁵ Sponsorships, on the other hand, focus on deepening a relationship between a senior-level employee and a junior associate so the sponsor can advocate and fight for them in terms of projects and promotions.²⁹⁶ A Fortune 500 company describes how it uses “forced sponsorships” in its environment where men outnumber the women. The first step presents sponsors with the roster of the top women and diverse talent in the company and ask who they know. Importantly, they never force individuals to sponsor any woman but ensure the sponsor knows the junior-level worker before engaging. Where sponsors do not know any sponsorees, the company sets up both individuals on a path to know each other, so they can circle back later to ask for formal sponsorship. To this executive, their sponsorship is about exposure and relationship-building: putting diverse individuals on the sponsor's radar so the sponsor can get to know the sponsoree, can introduce her to people he or she knows, and eventually put her forward for promotion.²⁹⁷

²⁹⁰Doret Botha & J. Freek Cronjé, *The Physical Ability of Women in Mining: Can They Show Muscle*, 115 J. S. AFR. INST. MINING & METALLURGY 659, 660 (2015).

²⁹¹IMMACULATE JAVIA & PUALINA SIOP, PAPER ON CHALLENGES AND ACHIEVEMENTS ON SMALL SCALE MINING AND GENDER - PAPUA NEW GUINEA, 9 (2010).

²⁹²LONMIN PLC. & INT'L FIN. CORP., *supra* note 261, at 39.

²⁹³*Id.*

²⁹⁴Telephone interview with Mining Company Employee (Oct. 4, 2018).

²⁹⁵Telephone interview with retired oil services company manager (Oct. 15, 2018).

²⁹⁶Telephone interview with Twin Cities Diversity in Practice (Sept. 12, 2018); Skype interview with Barbara Dischinger, Camila Reed, & Deborah Craig, International Women in Mining (Sept. 10, 2018).

²⁹⁷Telephone interview with Corporate Executive, Fortune 500 Corporation (Sept. 7, 2018).

Promising Practice: International Women in Mining (“IWIM”) developed a mentoring program for women in resources to help shape the female mining leaders of tomorrow. This international six-month program focuses on goal setting and leadership via a structured approach. It pairs senior mining leaders (men and women) with women working across mining in all fields, professions and seniority levels across the world. The pairing in this case not only stretches the mentee, but the mentor also. IWIM takes special attention to match mentors with women from a different country or continent, different cultures and or work environments, meaning they also learn, and it gives the program an element of reverse mentoring. IWIM also makes sure both mentees and mentors have shared values and will align on a personal level. More information is available at www.iwrmp.com.²⁹⁸

Retention and Supportive Environments

Flexible Working Arrangements

Companies also can provide environments supportive of women by enhancing flexibility. Flexible Working Arrangements (“FWA”) can include a variety of arrangements including staggered working hours, compressed work scheduled, scheduled breaks for extended learning and training, and telecommuting. Companies have deployed a variety of arrangements to meet employees’ needs. For example, one global company has contracted with Milk Stork, a service to enable traveling mothers to pump, package, and ship their breastmilk home to their infants.²⁹⁹

Greater flexibility is related to better engagement and retention of staff of both genders, whereas staff without such flexibility are more inclined to narrow their career goals or look for working conditions that meet their needs elsewhere.³⁰⁰ FWA can also increase safety and production, lower operating costs, as well as draw and retain a more diverse and talented workforce.³⁰¹ Even if FWA are in place, however, not all staff may feel comfortable using it.³⁰² Factors such as stigma, a lack of clarity on how to use them, or supervisor resistance, can deter employees from availing themselves of workplace flexibility. International Women in Mining highlights the importance of meaningful dialogue to understand what FWA means for everyone, from the people working in the office environment to the labor force on sites, shifts, and with first-in, first-out rosters.³⁰³

²⁹⁸Skype interview with Barbara Dischinger, Camila Reed, & Deborah Craig, International Women in Mining (Sept. 10, 2018); see also Skype interview with Gladys Smith, International Women in Mining (Sept. 6, 2018).

²⁹⁹Telephone interview with Corporate Executive, Fortune 500 Company (Sept. 7, 2018); see also MILK STORK, www.milkstork.com.

³⁰⁰U.N. WOMEN, STATUS OF WOMEN, *supra* note 281, at 26.

³⁰¹Powerpoint, Barbara Dischinger, International Women in Mining (on file with authors); U.N. WOMEN, STATUS OF WOMEN, *supra* note 281, at 26.

³⁰²Telephone interview with former oil services company manager (Oct. 15, 2018) (discussing how in 30 years with the company, she never encountered a man who took paternity leave upon the birth of a child).

³⁰³Powerpoint, Barbara Dischinger, International Women in Mining (on file with authors).

Opportunity to Train and Develop

Women employees at all levels need the same opportunity as men to train for additional skill levels and develop leadership opportunities. As one mining expert stated, “in open-pit mines, the hierarchy for pay and prestige are based on the kind of equipment being operated. Everyone starts at haul truck and then, with training, gets to move up to where they are setting the pace and in charge of the crew.”³⁰⁴ Training requires time off of the job and a person to do the training. If women do not have the same opportunity to train on specific equipment or to develop leadership skills, they cannot advance.³⁰⁵ As a result, they may leave the job. As one mining expert stated, “to keep employees interested [male and female], you have to create added value for staying with the company³⁰⁶ and one way to ensure women stay is to provide equal access to training and leadership development opportunities.”³⁰⁷

Sexual Harassment

Reports of sexual harassment within extractive industries are prevalent. Many of these revolve around the experiences of women miners who often operate underground with men who perpetrate abuse. Miners who work underground often have few sources of light and limited visibility, increasing the risk of sexual harassment. When women are sexually harassed in dimly-lit areas, such as mines, they may not be able to identify their offenders.³⁰⁸ Glen Mpufane, IndustriALL’s Director of Mining, noted that even when women do know their offender’s identity, they do not report “due to fear of reprisals, intimidation and losing their jobs.”³⁰⁹

Additionally, the risk of sexual harassment increases when workers are transported to and from the underground mining sites due to close physical proximity. One female participant in a study of South African mines told researchers that “[i]n the [transport] cage, [men] will push us like this and you can’t even breathe and the man is after you, you can feel his whole body pressing against you. Then they say like ‘what are you doing here at the mine?’, ‘my woman is at home, you are here at the mine.’”³¹⁰

In Chile, the Ministry of Mining conducted a 2016 survey of 603 women. The survey found that 40 percent of women reported hearing “cutting jokes, cat-calling and wolf-whistling,” and that another 20 percent of women reported being groped at work.³¹¹ Further, 7 percent reported receiving proposals to have relations.³¹²

³⁰⁴Telephone interview with Academic Expert (Sept. 4, 2018).

³⁰⁵*Id.*; Telephone interview with Corporate Executive, Fortune 500 Company (Sept. 7, 2018).

³⁰⁶Skype interview with Guyana Women Miners Organization (Aug. 31, 2018).

³⁰⁷Telephone interview with Mining Company Employee (Oct. 4, 2018); see also Telephone interview with retired oil services company manager (Oct. 15, 2018) (stating that one reason she stayed with the company for 30 years was her ability to train and learn new skills in new areas and to develop her leadership skills).

³⁰⁸Zandile Mavuso, *Mining Sector Exceeds 10% Female Employment Target but Sexual Harassment, Other Challenges Linger*, MINING WEEKLY (Dec. 11, 2015), <http://www.miningweekly.com/article/mining-sector-exceeds-10-female-employment-target-but-sexual-harassment-other-challenges-linger-2015-12-11>.

³⁰⁹*Female Mine Workers—Colleagues Not Sex Objects*, INDUSTRIALL (Aug. 13, 2015), <http://www.industriall-union.org/female-mine-workers-colleagues-not-sex-objects>

³¹⁰Doret Botha, *Women in Mining Still Exploited and Sexually Harassed*, 14 S. Afr. J. HUMAN RESOURCE MANAGEMENT 1, 9 (2016).

³¹¹Lauren Millan Lombrana, *Cat Calling, Whistling and Groping Greet Women in Mines of Chile*, BLOOMBERG (Aug. 8, 2018), <https://www.bloomberg.com/news/features/2018-08-08/women-fight-back-against-chile-s-hellish-mining-culture>

³¹²*Id.*

A study of women mineworkers in Tanzania demonstrated sexual harassment in numerous mining industries throughout the country. For example, women miners of volcanic rock reported enduring ongoing threats and demands for sexual favors in order to support their families.³¹³ One Tanzanian woman in cement-related mining reported that the men she supervised harassed her; their disrespect effectively prevented her from doing her job.³¹⁵ The study also looked at multiple instances of sexual harassment in gold mining, but acknowledged efforts to protect women and prevent harassment, such as clarifying and promoting sexual harassment policies, terminating workers who violated those policies, and maintaining a sexual harassment hotline.

Due to the physical nature of mining, sexual harassment may become life-threatening, where it would not in other industries. Former Alaskan gold miner Hanna Hurst told *The New York Times* that, in addition to making sexual remarks about her and circulating pornographic images, her male coworkers tampered with both her drill and walkie-talkie, which put her at risk of death or injury.³¹⁶ Hurst was unable to hear instructions or communicate with coworkers and supervisors, and it prohibited her from completing her work.³¹⁷

Sexual harassment of women in the extractive industries is not limited to the harassment of women working underground. While a majority of the reporting and statistics concern women miners, stories have emerged of sexual harassment of women working in other areas of the extractive industry. One report told the story of Carla Rojas, a risk prevention officer, who was, in part, tasked with examining sexual harassment complaints.³¹⁸ After being randomly selected for a drug test on her first day at a new mine, Rojas was told by a laughing, all-male team of nurses that she had to let them watch her urinate to ensure she did not cheat.³¹⁹ The same report also told the story of safety officer Karen Requena, who daily had to endure thousands of men leering and hitting their utensils against their plates as she tried to find a safe place to sit in the mine cafeteria.³²⁰

Additionally, non-miner women employees also face escalating threats and risk of violence if they discuss or push back against sexual harassment. Susan Lomas, President of Lions Gate Geological Consulting and founder of Me Too Mining Association, was prohibited from going underground when she began working at one mine.³²¹ After a new chief geologist gave her permission to work underground, her male officemates began pasting pornographic images all over the shared office space, which were replaced every time she tried to remove them.³²² When Lomas spoke with her officemates about the

³¹³GLOBAL AFFAIRS CANADA & U.N. WOMEN, MAPPING STUDY ON GENDER AND EXTRACTIVE INDUSTRIES IN MAINLAND TANZANIA 48 (Nov. 2016).

³¹⁴*Id.* at 52.

³¹⁵*Id.* at 44–45

³¹⁶Susan Chira, *We Asked Women in Blue-Collar Workplaces About Harassment. Here Are Their Stories.*, N.Y. TIMES (Dec. 29, 2017), <https://www.nytimes.com/2017/12/29/us/blue-collar-women-harassment.html>.

³¹⁷*Id.*

³¹⁸Lombrana, *supra* note 311.

³¹⁹*Id.*

³²⁰*Id.*

³²¹Tavia Grant & Dawn Calleja, *Us Too: Eight Women Share Their Stories of Sexism, Harassment and Assault at Work*, GLOBE & MAIL (May 23, 2018), <https://www.theglobeandmail.com/business/rob-magazine/article-us-too-eight-women-share-their-stories-of-sexism-harassment-and/>.

³²²*Id.*

images, one man threatened to put her hand in a rock crusher and break all of her fingers.³²³ Stories of sexual harassment within extractive industry executive offices are missing from these reports. The lack of reporting, however, does not necessarily indicate a lack of sexual harassment of women in higher positions. In regard to harassment in mining, Susan Lomas explains: “I’ve seen what I call the cult of personality in a lot of mining companies, where the CEO is very aggressive or a bully and the women just tend to leave. It’s a small industry, and there are already so few women in it. And the mentality is that if you stick your head up, it’s going to get chopped off.”³²⁴ While Lomas was speaking generally about the extractive industry, it seems that if high-level employees permit or perpetuate sexual harassment, it is likely seen at all levels of the industry.

Some organizations and researchers have sought to identify the root causes of sexual harassment against women in mining. One report on sexual harassment in Sub-Saharan Africa mining regions stated that sexual harassment and violence against women was “triggered by the influx of migrant workers, social disruptions, increasing disposable incomes and associated alcoholism, and higher rates of female employment in prostitution.”³²⁵ Phumeza Mgnego, the national secretary of the women’s section of South Africa’s National Union of Mineworkers noted that women miners are often viewed as “sex objects . . . [which] leads to sexual harassment.”³²⁶ Regardless of the reasons specific to mining, feminist scholars agree that sexual harassment in general is not an expression of sexual desire, but rather a means by which men assert power over the women.

Other Barriers Specific to Women in Field

Childcare Facilities

Historically, companies in the industry designed benefits packages for white men who were either single or had a stay-at-home spouse. In today’s environment, these benefits packages need to be rethought and to be made more flexible.³²⁷ Several interviewees identified accessible childcare facilities as the biggest need for women working in extractive industries. Gladys Smith, of International Women in Mining, states, “Companies are not prepared and do not have facilities for a mother to work after she has a child.”³²⁸ Without provision of childcare, corporations are “losing talent. They are losing women who are very talented but can’t go back to work if they don’t have the facilities to care for their children.”³²⁹ An expert observed that many of the women working in U.S. mines were single mothers.³³⁰ These women face a double-edged sword, in that they want to work in the mines to support their children, but the nature of the work makes it difficult for primary caretakers. The work may be long shifts that span 12 hours, may be irregular shifts that switch between day and night shifts, or, in the case of oil and gas, have shifting source sites that require mobility.³³¹

³²³*Id.*

³²⁴*Id.*

³²⁵BSR, WOMEN’S ECONOMIC EMPOWERMENT IN SUB-SAHARAN AFRICA: RECOMMENDATIONS FOR THE MINING SECTOR 11 (2009).

³²⁶*Female Mine Workers—Colleagues Not Sex Objects*, INDUSTRIALL (Aug. 13, 2015), <http://www.industriall-union.org/female-mine-workers-colleagues-not-sex-objects>.

³²⁷Zoom interview with Pink Petro (Sept. 14, 2018); Skype interview with Ander Arcos, Alonso, Alliance for Responsible Mining (Colombia) (Sept. 14, 2018).

³²⁸Skype interview with Gladys Smith, International Women in Mining (Sept. 6, 2018).

³²⁹*Id.*

³³⁰Telephone interview with Academic Expert (Sept. 4, 2018).

³³¹*Id.*

In the absence of accessible and available daycare, women or civil society assume the burden of coming up with a solution themselves. Women in U.S. mines traded child care with other women on the opposite schedule.³³² In Papua New Guinea, where no mines had on-site daycare, mothers pay young female family members to watch infants in a building not equipped for child play.³³³ A non-profit organization, Guyana Women Miners' Organization, assumes responsibility for meeting women's needs or advocating before government agencies. The organization, which supports women miners, provides daycare within their office when clients visit, and also assists with locating childcare for women undergoing training.³³⁴ They leveraged their advocacy potential to get the commission and regulatory agency to provide for school transportation. Because workers go to work at 7:15am but schools do not accept children until 8am, they successfully lobbied for transportation that picks up children at the compounds and drops them off at school so parents do not have to leave their jobs.³³⁵

Critically, childcare facilities must be accessible to mothers. As one expert stated, "I would have a nursery at every mine, in every company, in every city." Another expert stressed that in industries that require longer or night shifts, daycares should be open 24 hours per day.³³⁶ Even when daycares are available, women may not have the financial means to pay for it.³³⁷

Equipment and Bathroom Facilities

Experts have cited how equipment and uniforms are not designed to accommodate women. Equipment and personal protective gear used in the extractives industry, historically, have been designed for the physical attributes of men.³³⁸ Machinery, tools, and other equipment are designed for the male physique and use of these tools and equipment by women can cause greater risk of injury and production stoppage.³³⁹ Poorly-sized personal safety equipment, including safety gloves, glasses or goggles, shoes, earplugs or muffs, hardhats, self-contained self-rescue dust masks, harnesses, overalls, and reflective vests,³⁴⁰ exposes women to health and safety hazards and make them less able to perform their duties efficiently.³⁴¹ One commentator noted that there are huge safety concerns with ill-fitting safety equipment in the oil and gas industry. The dangers include women tripping and falling due to baggy boiler suits and ill-fitting safety boots, impaired vision by loose-fitting safety goggles, and lung damage from ill-fitting dust masks.³⁴²

³³²*Id.*

³³³Macintyre, *supra* note 11, at 28.

³³⁴Telephone interview with Guyana Women Miners' Organization (Aug. 31, 2018).

³³⁵*Id.*

³³⁶Telephone interview with Academic Expert (Sept. 4, 2018).

³³⁷Skype interview with Gladys Smith, International Women in Mining (Sept. 6, 2018).

³³⁸Warren Beech & Refiloe Vengeni, *Personal Protective Equipment for Women Miners*, HOGAN LOVELLS (Nov. 2015), www.hoganlovells.com/en/publications/personal-protective-equipment-for-women-miners.

³³⁹*Are We Doing Enough for the Safety of Female Miners?*, MINING SAFETY, <http://www.miningsafety.co.za/dynamiccontent/124/Are-we-doing-enough-for-the-safety-of-female-miners> (last visited Dec. 26, 2018).

³⁴⁰MINE HEALTH & SAFETY COUNCIL, PERSONAL PROTECTIVE EQUIPMENT FOR WOMEN IN MINING 11 (Aug. 2015).

³⁴¹Beech & Vengeni, *supra* note 338

³⁴²Valerie Jones, *Safety, Not Fashion, is the Main Driver Behind New Women's Gear in Oil and Gas*, RIGZONE (Sept. 17, 2018),

https://www.rigzone.com/news/safety_not_fashion_is_main_driver_behind_new_womens_gear_in_oil_and_gas-17-sep-2018-156946-article/?all=hg2.

Another issue faced by women in the extractives industry is use of toilet facilities. For example, Linda Nakedi, of Women in Mining South Africa, described how mining uniforms are not constructed to enable women to easily go to the bathroom.³⁴³ An academic who worked in and specializes in U.S. coal mines, explained how equipment lacks bathrooms on board and requires re-design. While men can urinate on the side, women must either use a portable toilet or find a way to park their equipment in a way they can create privacy. In cases where this is not possible, some women resort to making jokes to cope with going to the bathroom in front of others. The expert found that women deal with the restroom infrastructure in two ways in open pit mines. First, women limit the water they drink during the workday, which poses a harm to their health. Second, women choose equipment with closer proximity to restroom facilities, such as haul trucks that pass by portable bathrooms. Haul trucks, however, are an entry-level position from which people advance to positions that set the pace and are in charge of crew. Where a woman has risen to the level where she is operating a shovel—the most prestigious position—she is forced to shut down the entire process to go to the bathroom. If she does not have her own truck there, she needs to take an additional step and call someone to transport her to the bathroom. Stopping work and traveling to a restroom facility risks conveying an image that women do “less work” than the men who can “go, go, go” all day.³⁴⁴

³⁴³Green, *Surviving the “Underground” Economy*, *supra* note 81.

³⁴⁴Telephone interview with Academic Expert (Sept. 4, 2018).

Harms to Women in the Communities of Extractive Industries

Women in the communities of extractive industries are directly impacted by the presence of the industry. Many of the impacts of mining can bring about benefits for women and broader communities. For example, women may have greater access to education and travel, enjoy improvements to infrastructure, such as roads, and see economic opportunities.³⁴⁵

Women, however, are often the most affected by the adverse impact of the extractives industry on their communities. Entrance of the industry into the community can create environment degradation such as contaminating the water, thereby requiring women to travel farther to get safe water. It also can destabilize social relations in the community and exacerbate existing gender inequalities.³⁴⁶ Food insecurity also is a concern at extractives industry sites. Traditionally, women are responsible for family food. Mines and oil and gas facilities that impact agricultural land and water directly impact women's ability to grow adequate and safe food for the family. They then must purchase food at inflated prices for consumption. The result is food insecurity in poorer households which tend to be female-headed.³⁴⁷ Food scarcity likewise is a risk factor for transactional sex and communicable diseases.³⁴⁸

At times, women also face numerous barriers to full enjoyment of human rights. One expert stated that it was often difficult to find someone in the community surrounding the mine who was not connected to the mine in some manner, whether they were married to or were children of a miner.³⁴⁹ The expert found that mining was occurring in isolated areas, often where the surrounding community would not exist if not for mining.³⁵⁰ Gladys Smith noted that reaching the women who live and work in the communities surrounding the mines was difficult, but important work as “even if they don't work in mines, they likely supply the mines.”³⁵¹ These women's lives are inevitably shaped by the extractive industry's presence in their communities, and often their human rights are at risk of being compromised as a result.

In addition, the commercial sex industry tends to peak during construction stages when most mine workers are single men on short-term contracts.³⁵² The women who trade or sell sex may be escaping situations of arranged marriages, poor economic situations, abandonment or financial debts by their husbands.³⁵³ Trafficking is common, where women are deceived into believing they are accepting other employment, such as a shopkeeper.³⁵⁴

³⁴⁵Parmenter, *supra* note 149, at 67.

³⁴⁶Int'l Fin. Corp. et al, *supra* note 148, at 29.

³⁴⁷TINYADE KACHIKA, U.N. WOMEN, GENDER ASSESSMENT OF THE EXTRACTIVE INDUSTRY IN MALAWI 48–49 (Dec. 2014).

³⁴⁸OXFAM INT'L, POSITION PAPER ON GENDER JUSTICE AND THE EXTRACTIVES INDUSTRY 6 (Mar. 2017).

³⁴⁹Telephone interview with Academic Expert (Sept. 4, 2018).

³⁵⁰*Id.*

³⁵¹Skype interview with Gladys Smith, International Women in Mining (Sept. 6, 2018).

³⁵²Petra Mahy, *Sex Work and Livelihoods: Beyond the 'Negative Impacts on Women' in Indonesian Mining*, in *GENDERING THE FIELD: TOWARDS SUSTAINABLE LIVELIHOODS FOR MINING COMMUNITIES* 54 (Kuntala Lahiri-Dutt ed., 2011).

³⁵³*Id.* at 56.

³⁵⁴*Id.* at 58.

Exacerbation of Existing Gender Inequity

When the extractive industry enters a community, it becomes a disrupting force with the potential to amplify inequality in a community dominated by a patriarchal social structure. One report found that “the vulnerabilities women already experience frequently exacerbate the (often unconscious) gender blindness of oil project development, which tends to reinforce existing social hierarchies and favors (male) incumbents in positions of power.”³⁵⁵ If a community already abides by gendered labor norms, women generally take on more of the stress associated with environmental, economic, and social changes that occur when the extractive industry establishes a work site.³⁵⁶ Women’s gendered responsibilities—cooking, food production, taking care of children and the elderly, and finding fuel and water³⁵⁷—are devalued when the community becomes more economically complex, moving from a subsistence- to cash-based economy.³⁵⁸ When these roles become less valued and more invisible, women’s status within the community falls.³⁵⁹

The failure to engage women in the planning of an extractives industry site can have negative impact on women’s livelihoods. For example, in Malawi, where men traditionally are the decision-makers at the household levels, mining companies regularly resettle entire villages to make way for a mining site. As part of the resettlement, companies usually offer either to build new homes or compensation. Men, as heads of household, receive the compensation and make all decisions on how it is spent. The men often spend this money, not on building a new home for the family, but on personal matters such as luxury items, alcohol, prostitution or extramarital relationships, thus leaving the family homeless or in lower quality homes. Women are thus faced with the pressure of looking after households and children with no or limited resources, locking them in a state of impoverishment.³⁶⁰

One study found that “this change to a cash economy has been known to change spending patterns among male earners; for example, by increasing the proportion of household income spent on alcohol and sex workers.”³⁶¹ Further, as the devaluation of subsistence work is coupled with the rising importance cash income, women become more economically dependent on the men in their lives.³⁶² Thus, women become more dependent on another’s income and the male income earner is more likely to spend haphazardly rather than investing in the family.

Promising Practice: Guyana Women Miners Organization works with women who are landowners to provide them the opportunities to develop their skills, manage businesses, connect them with investors, and give them specific capacity-building training, such as GPS and map-reading training, so women can complete those tasks instead of spending money to outsource those tasks. The organization has also promoted access to training for women to qualify as laborers ranging from base operators or becoming cooks.³⁶³

³⁵⁵SCOTT ET AL, *supra* note 153, at 9.

³⁵⁶*Id.* at 5.

³⁵⁷*Id.* at 5, 22.

³⁵⁸INT’L FIN. CORP., TOOL SUITE 3: WOMEN AND COMMUNITY ENGAGEMENT 8 (2018) [hereinafter IFC, TOOL SUITE 3].

³⁵⁹SCOTT ET AL, *supra* note 153, at 5.

³⁶⁰KACHIKA, *supra* note 347, at 20–21.

³⁶¹IFC, TOOL SUITE 3, *supra* note 358.

³⁶²*Id.*

³⁶³Skype interview with Guyana Women Miners Organization (Aug. 31, 2018).

Lack of Available Resources

In addition to the devaluation of gendered subsistence work, women often bear the burden of other changes within the community. These include pollution and land loss.³⁶⁴ As women are generally tasked with obtaining food, water, and fuel, they are more directly impacted by the decreased availability of resources.³⁶⁵ Women must walk further to reach water, agricultural land, and wood and other forest products that have not been compromised by pollution or destroyed by the industry's use of land.³⁶⁶ One report found that “although the availability of productive land may diminish, women's responsibilities for feeding their families do not. Women may be primary land users, but men most commonly hold land title and compensation payments therefore do not accrue to the most impacted parties.”³⁶⁷ The scarcity of nearby resources leads to increased local prices for those resources as well as increased prices for transportation to reach those resources that are further away.³⁶⁸ However, as these women may not have access to the influx of capital coming from the extractive industry, they may be unable to afford the nearby resources and may lack access to affordable transportation, requiring them to travel long distances on foot to obtain basics like food and water.³⁶⁹

Barriers to Community Consultation

The introduction of an extractive industry and resulting lack of accessible food, water, and other resources is directly connected to a failure to include women in consultations prior to and during the extractives operation. Often, women face de facto exclusion from conversations and decision making processes regarding the extractive industry.³⁷⁰ Women may be excluded due to cultural factors, such as a lack of women in existing leadership roles or attitudes around women speaking out about their own concerns.³⁷¹ They may also be excluded when conversations are only held with heads of families or property owners.³⁷² Women may be further excluded when those consultations happen only in the larger cities, far away from the actual sites.³⁷³ This exclusion can increase community hostility and dissatisfaction with extractive companies, further dampening potential benefits of development.³⁷⁴

John Strongman, a former Mining Adviser at the World Bank's Oil, Gas, Mining and Chemicals Department, attended a Mining and Community Conference in 1996, where he saw a group of women protesting outside of the conference. When he spoke to the one of the leaders, she told him that women were worried about losing agricultural land to the mining operation and resulting food scarcity. Several years after the experience, Strongman recalled that “the mining company could have addressed this by working with the community on food security issues—but the problem was that no one was listening to the women.”³⁷⁵

³⁶⁴SCOTT ET AL, *supra* note 153, at 5; see also Skype interview with Ander Arcos, Alonso, Alliance for Responsible Mining (Colombia) (Sept. 14, 2018).

³⁶⁵IFC, TOOL SUITE 3, *supra* note 358, at 9.

³⁶⁶*Id.*

³⁶⁷SCOTT ET AL, *supra* note 153, at 21.

³⁶⁸BERNIE WARD ET AL, WORLD BANK, GENDER SENSITIVE APPROACH FOR THE EXTRACTIVES INDUSTRY IN PERU 5 (2011).

³⁶⁹*Id.*

³⁷⁰SCOTT ET AL, *supra* note 153, at 5.

³⁷¹IFC, TOOL SUITE 3, *supra* note 358, at 9.

³⁷²*Id.*

³⁷³Skype interview with Guyana Women Miners Organization (Aug. 31, 2018).

³⁷⁴SCOTT ET AL, *supra* note 153, at 8.

³⁷⁵John Strongman, *Empowering Women through EITI*, EITI (July 27, 2010), <https://eiti.org/blog/empowering-women-through-eiti>.

Even if women are permitted to attend conversations and negotiations, there is a chance that language barriers will prohibit women from meaningful participation. Women are more likely than men to not speak English or other dominant languages. One report noted that “women who were able to attend consultations to participate or (more commonly) to observe reported that companies had previously sent representatives who were not able to communicate in local languages or dialects.”³⁷⁶

Research conducted in conjunction with the World Bank found that “it is vital to understand [women’s] priority needs, including those concerning their hopes and fears about the future, so a company can ensure that it is not going to worsen women’s situation but instead contribute to improving it.”³⁷⁷ Ultimately, when extractive companies do not consult with women, those women face greater environmental, economic, and social harms than men while obtaining fewer benefits from the extractive work.³⁷⁸

Unique Challenges of Women in Artisanal and Small-scale Mining

Women play a larger role in artisanal and small-scale mining, or informal mining that uses less technology or machinery, than in the large scale mining sector.³⁷⁹ Women constitute 30 percent of the global artisanal mining workforce,³⁸⁰ and approximately 40 to 50 percent of that labor force in Africa.³⁸¹

Women in artisanal mining may be more vulnerable to risks, as they typically live in rural or semi-rural areas where socio-economic and environmental conditions may be harsh.³⁸² In addition, risks are exacerbated due to a number of factors, including the transient nature of artisanal mining communities, the presence of many young men, the daily flow of cash, and high rates of alcohol and substance abuse.³⁸³ Artisanal mining is often also characterized by socio-economic problems, including poor camp conditions, resulting in substance abuse and sexual activity, child labor, environmental damage and localized inflation.³⁸⁴ In particular, the incidence of sexual and gender-based violence against women can be higher in artisanal and small-scale mining communities when certain factors are present, such as a weak or non-existent traditional village authority, the limited presence of police and judicial authorities, a workforce consisting of men who are without their families, harmful beliefs that subordinate women, cultural practices that condone sexual and gender-based violence, and the prevalence and acceptance of the commercial sex trade.³⁸⁵ Many artisanal mining regions also experience a high rate of HIV/AIDS.³⁸⁶

³⁷⁶SCOTT ET AL, *supra* note 153, at 54.

³⁷⁷WARD ET AL, *supra* note 368, at 13.

³⁷⁸IFC, TOOL SUITE 3, *supra* note 358, at 7.

³⁷⁹HINTON ET AL, *supra* note 178, at 2. Artisanal and small-scale mining employs 100 million miners and comprises approximately 80 percent of sapphires, 20 percent of gold, and 20 percent of diamond mining. *Artisanal and Small-Scale Mining*, THE WORLD BANK BRIEF (Nov. 21, 2013), <http://www.worldbank.org/en/topic/extractiveindustries/brief/artisanal-and-small-scale-mining>.

³⁸⁰HINTON ET AL, *supra* note 178, at 1.

³⁸¹*Id.*, at 2.

³⁸²Kuntala Lahiri-Dutt, *Gendered Livelihoods in Small Mines and Quarries in India: Living on the Edge* 22–23 (Rajiv Gandhi Inst. for Contemporary Studies & Austl. S. Asia Research Centre Working Paper, 2006); Karen Hayes & Rachel Perks, *Women in the Artisanal and Small-Scale Mining Sector of the Democratic Republic of the Congo*, in *HIGH-VALUE NATURAL RESOURCES AND PEACEBUILDING* 530 (Päivi Lujala & Siri Aas Rustad eds., 2012).

³⁸³Lahiri-Dutt, *supra* note 382, at 27; Hayes & Perks, *supra* note 382, at 534.

³⁸⁴Hayes & Perks, *supra* note 382, at 532.

³⁸⁵*Id.* at 537–38.

³⁸⁶HINTON ET AL, *supra* note 178, at 13.

While artisanal and small-scale mining presents health issues for all involved, there are additional health hazards particular to women.³⁸⁷ Women may transfer risks to their fetuses if exposed to toxins prior to or during their pregnancy, and adverse social behaviors associated with artisanal mining (such as drug abuse, alcoholism, stress) cause further damage to reproductive health.³⁸⁸ These risks can be exacerbated where artisanal mining takes place in remote locations outside the reach of governmental regulation.³⁸⁹ In addition, artisanal and small-scale miners may be exposed to numerous physical hazards due to the basic manual techniques or the lack of governmental oversight or regulation.³⁹⁰

Women are often paid significantly less than men for the same number of working hours.³⁹¹ This is in part because women tend to work at the lower ends of the production chain performing tasks such as washing, sorting, transporting, and are thus excluded from higher-level decision-making processes.³⁹² Women in artisanal mining also face challenges when they lack access, either due to legal prohibitions or traditional norms, to land or the necessary licenses.³⁹³ Such systems allow men to control mining activities and exercise authority over financial matters.³⁹⁴ Because child care is often scarce, women must often bring their children to the mines.³⁹⁵ This affects the children in myriad ways, such as exposure to poor sanitary and environmental conditions or forcing them to forgo their education.³⁹⁶

Finally, discrimination against women in artisanal mining is prevalent and reflects long-standing stereotypes and taboos.³⁹⁷ For example, women may be required to surrender any high-value stones to the male mine owners or may not be permitted to enter the mines for fear they will make the minerals “disappear;” in certain communities, such misperceptions encourage violence against women when harmful beliefs that male miners will be more successful if they take a girl’s virginity persist.³⁹⁸

Efforts to address violations against women in artisanal and small-scale mining can target literacy and/or vocational training, establish village savings banks, and start small businesses.³⁹⁹ Authorities, investors and civil society should lobby local governments to address the hazards faced by women in artisanal mining, while companies can participate either directly or by funding programs.⁴⁰⁰

³⁸⁷KUNTALA LAHIRI-DUTT & CHASOUL INVOUANH, GENDER IN ARTISANAL TIN MINING IN LAO PDR 33–34 (2010); WORLD HEALTH ORGANIZATION, ARTISANAL AND SMALL-SCALE GOLD MINING AND HEALTH 16 (2016) [hereinafter WHO, GOLD MINING AND HEALTH].

³⁸⁸WHO, GOLD MINING AND HEALTH, *supra* note 387; ASIA FOUND., GENDER ASSESSMENT OF SMALL-SCALE MINING IN MONGOLIA 43–44 (2013).

³⁸⁹WHO, GOLD MINING AND HEALTH, *supra* note 387.

³⁹⁰Hayes & Perks, *supra* note 382, at 532.

³⁹¹*Id.* at 534.

³⁹²Dorris Buss et al, *Gender and Artisanal and Small-Scale Mining in Central and East Africa: Barriers and Benefits* 31–34 (Inst. for the Study of Int’l Dev. Working Paper GWP-2017-02, 2017); HINTON ET AL, *supra* note 178, at 2; Hayes & Perks, *supra* note 382, at 534.

³⁹³LAHIRI-DUTT & INVOUANH, *supra* note 387, at 34; INTERGOV. FORUM ON MINING, MINERALS, METALS & SUSTAINABLE DEV., *supra* note 294, 10-14.

³⁹⁴Lahini-Dutt, *supra* note 382, at 15; INTERGOV. FORUM ON MINING, MINERALS, METALS & SUSTAINABLE DEV., *supra* note 393, at 10.

³⁹⁵Hayes & Perks, *supra* note 382, at 535.

³⁹⁶*Id.*

³⁹⁷Buss et al, *supra* note 392, at 28–30; Hayes & Perks, *supra* note 382, at 534; HINTON ET AL, *supra* note, at 15–16.

³⁹⁸Hayes & Perks, *supra* note 382, at 534–535.

³⁹⁹*Id.* at 536.

⁴⁰⁰*Id.* at 540–542.

Violence Against Women

All of the above mentioned social consequences limiting women’s full enjoyment of human rights also increase the risk of family violence and disintegration.⁴⁰¹ The World Bank found that domestic violence can “flourish” after extractive industries come into a community, as “less time is spent together as partners, the husband’s new cash income exacerbates the power inequality in the marriage, and disagreements arise over how new income will be spent.”⁴⁰² The increased risk of violence exists in communities surrounding both industrial and artisanal and small-scale mining operations.⁴⁰³ Researchers have found that as men earn more money, they change their spending habits, spending more money on “alcohol, cigarettes, and other disposable items that do not benefit women and children.”⁴⁰⁴ This serves to make women more vulnerable and increase the risk of domestic violence.⁴⁰⁵ Researchers have also observed an increase in harassment, violence against women, and exposure to HIV.⁴⁰⁶

The safety of women in the communities surrounding mines may be placed at greater risk if the company is unable to communicate with women due to language barriers. This is particularly true for women in rural areas who only speak their native language. An example from the World Bank illustrates this:

“In 2003, in a meeting between a community in the northern part of the jungle and the [extractives industry] company, the community women stated that they held the company responsible for the fact that their husbands hit them. Because the women were talking among themselves in Quechua and the company’s representative did not speak that language, she was not able to understand their complaints. Fortunately, another person who was present translated. It appeared that the women used to collect water from a source close to their homes, but now that source was contaminated (by the company), so they had to walk a longer distance to get water. This meant that the women did not have supper ready for their husbands when they got back from work, and that was why the men had started to hit the women. Consequently, the company built a well, and the immediate problem was resolved.”⁴⁰⁷

While the Quechua-speaking women were fortunate to have someone at the meeting who was able to translate, this example demonstrates companies’ potential inability—rather than unwillingness—to address the needs to the community. If a company’s actions put women’s safety at risk and language barriers prevent the company from understanding the consequences of its actions, the harms against women are exacerbated.

⁴⁰¹WARD ET AL, *supra* note 368, at 2.

⁴⁰²*Id.* at 13.

⁴⁰³BSR, *supra* note 52, at 23.

⁴⁰⁴SCOTT ET AL, *supra* note 153, 22.

⁴⁰⁵*Id.*

⁴⁰⁶BSR, *supra* note 52, at 23.

⁴⁰⁷WARD ET AL, *supra* note 368, at 15.

In addition to increased violence within their communities, women who have to travel long distances to access resources face a greater risk of sexual violence.⁴⁰⁸ Where extractive industries are located in a region facing resource-based conflicts, women are disproportionately put at risk.⁴⁰⁹ Civil society has stepped in to address the gaps and risks of trafficking in persons. The Guyana Women Miners Organization collaborates with 13 diverse NGOs and created a national networking group on trafficking in persons. They liaise with the police to ensure reports and investigations into trafficking occur, execute rescues of victims in the mining districts, and have created a safehome.⁴¹⁰

Sex Trafficking

The emergence of extractive industries in a particular location is often coupled with the socioeconomic phenomenon known as the “Boomtown Effect.” The Boomtown Effect is characterized by rapidly changing population and industry, which leads to a “host of social ills” including “increased rates of crime, drug and alcohol abuse, sexually-transmitted infections (STIs), and domestic violence; [etc.]. . .”⁴¹¹ The large influx of—primarily male—workers has a different impact depending on the size of the pre-extractive community, but can cause upheaval in smaller, rural areas.⁴¹² A troubling feature of this effect is the increased rate of violence against women and girls, particularly increased rates of sex trafficking.

The Bakken region of North Dakota, U.S.A. experienced such an effect in the early 2010s. Researchers found that “[t]he rapid oil development brought an influx of cash and thousands of oil workers living in ‘man camps’ with time and money on their hands. With this, the rates for murders, aggravated assaults and robberies tripled, while the rates for sex crimes, forcible rape, prostitution and sex trafficking, increased by 20.2 per cent.”⁴¹³

Researchers have also identified multiple factors that contribute to the increased rate of sex trafficking in extractive communities. The non-profit organization Verité found that “[w]henver there are large migrations of men to an area for employment (a risk indicator for human trafficking), there is a high demand for sexual services, which often generates sex trafficking. This is exacerbated when workers are living in isolated regions, away from familial and social connections.”⁴¹⁴

⁴⁰⁸JFC, TOOL SUITE 3, *supra* note 358, at 9.

⁴⁰⁹BSR, *supra* note 52, at 23.

⁴¹⁰Skype interview with Guyana Women Miners Organization (Aug. 31, 2018).

⁴¹¹NEW BRUNSWICK DEPARTMENT OF HEALTH, CHIEF MEDICAL OFFICER OF HEALTH’S RECOMMENDATIONS CONCERNING SHALE GAS DEVELOPMENT IN NEW BRUNSWICK 5 (2012).

⁴¹²RICK RUDDELL, OIL, GAS, AND CRIME: THE DARK SIDE OF THE BOOMTOWN 2 (2017).

⁴¹³Rebecca Adamson, *Vulnerabilities of Women in the Extractive Industries*, 2 ANTYAJAA INDIAN J. WOMEN & SOCIAL CHANGE 24, 25 (2017).

⁴¹⁴VERITE, STRENGTHENING PROTECTIONS AGAINST TRAFFICKING IN PERSONS IN FEDERAL AND CORPORATE SUPPLY CHAINS 70 (2015).

Many extractive industries tend to be in remote locations and are dominated by an unaccompanied male workforce, which increases the demand for commercial sex. The lack of surrounding infrastructure further increases a sense of boredom and isolation amongst miners. The “poor, often depressing, conditions” in which some miners live can result in workers “seeking out sexual services from women and girls.”⁴¹⁵ As a result, women and girls from rural and impoverished regions become the vulnerable to sex trafficking.⁴¹⁶ In 2010 in Peru, one NGO estimated that there were approximately 2,000 women working in about 100 brothels surrounding one mining area, and that 60 percent were minors.⁴¹⁷

Traffickers employ a variety of methods to deceive, kidnap, and entrap women and girls.⁴¹⁸ Researchers at Verité discovered that, in Peru, some women are tricked into answering job offers to work as cooks, waitresses, and sales clerks to support the influx of workers. While some of these women ended up working in those roles, they were also forced to provide “sexual services” to the miners.⁴¹⁹ Verité further reported that some women, including those who answered unspecified job offers to work in mining camps were trafficked into brothels “where they were threatened with physical and sexual violence if they tried to flee.”⁴²⁰

Additionally, reports indicate that some men brought their wives or girlfriends to work in the extractive industry also play a role as pimps by selling their partners to their mine co-workers.⁴²¹ For example, “ngoanatsela” in South Africa refers to such pimping of young girls who miners bring from home as their “girlfriends.”⁴²²

⁴¹⁵Sarah Steele, *Human Trafficking, Labor Brokering, and Mining in Southern Africa: Responding to a Decentralized and Hidden Public Health Disaster*, 43 INT’L J. HEALTH SERV. 665, 671.

⁴¹⁶U.N. MIGRATION, REMEDIATION GUIDELINES FOR VICTIMS OF EXPLOITATION IN EXTENDED MINERAL SUPPLY CHAINS 4 (2018).

⁴¹⁷GLOBAL INITIATIVE AGAINST TRANSNAT. ORG. CRIME, ORGANIZED CRIME AND ILLEGALLY MINED GOLD IN LATIN AMERICA 31 (2016).

⁴¹⁸Steele, *supra* note 415, at 666.

⁴¹⁹VERITÉ, *supra* note 414, at 66.

⁴²⁰*Id.* at 70; GLOBAL INITIATIVE AGAINST TRANSNAT. ORG. CRIME, *supra* note 417, at 29.

⁴²¹Steele, *supra* note 415, 666.

⁴²²INT’L ORG. FOR MIGRATION, MINING SECTOR REPORT 11 (2010).

Conclusion

Women are noticeably absent from much of the extractives industry. Highly educated women are pushed out by sexual harassment and lack of child care. State and regional laws and policies prevent women from obtaining well-paying jobs with upward mobility. Women in the communities surrounding extractive sites are left out of consultation. Numerous harms result from this conspicuous lack of women, as it does not exist within a vacuum.

States and extractives companies alike would benefit immensely through female inclusion and diversity in the extractives industry. Likewise, both the women employed by the extractives industry and the non-employee women in the surrounding communities could achieve economic independence and greater social mobility if the industry listens to the particular needs of all impacted women when implementing gender-sensitive reforms.

Recommendations

The following recommendations are directed to governments:

- 1. Repeal or amend laws that discriminate against women in the workplace and in private life.** These include laws that impede women's access to employment, land ownership, inheritance, ability to access credit or loans or enter into contracts, or impose restrictions to travel. Seek to amend laws in line with international legal standards of equality and non-discrimination.
- 2. Ensure that effective laws on violence against women, including domestic violence and trafficking in persons, are in place.** Systems actors charged with implementing these laws should receive training, in consultation with civil society. The implementation of these laws should be adequately funded and regularly monitored for continuing reforms.
- 3. Consult with and support civil society working on women's rights, violence against women, gender equality within the extractive industries, as well as the impacts of these industries on the community.** Ensure that barriers for women to fully and effectively participate in such consultations are removed so they can share their priority needs and concerns.
- 4. Ensure and support services for victims of discrimination and violence against women.** Such services should be led by non-governmental organizations that best understand and serve women victim and survivors' needs. Ensure that services for marginalized populations, including migrant and indigenous female workers, are customized to address their specific needs.
- 5. Take steps to ratify and comply with all relevant human rights treaties,** including but not limited to, relevant International Labor Organization conventions, the Convention on the Elimination of Discrimination Against Women, the International Convention on Economic, Social and Cultural Rights, and the International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families.
- 6. Conduct a regular gender audit that evaluates how gender equality is incorporated into policies, procedures, programs, budgets, and infrastructure of the country's workforce.** The ILO's Manual for Gender Audit Facilitators may serve as a model and practical guide at https://www.ilo.org/gender/informationresources/WCMS_187411/lang-en/index.htm
- 7. Ensure the ongoing collection of accurate workforce and educational data.** Such data should be disaggregated by sex and also gather information on levels of academic achievement and ranking workplace levels.

8. **Ensure that girls and women can enjoy equal access to education.** Use gender-responsive budgeting and initiatives to support education, including STEM programs, for girls and young women.
9. **Undertake public information campaigns to raise awareness** on the benefits of female inclusion in the workforce and how to support gender diversity. In addition, public awareness efforts should seek to overturn harmful stereotypes, unconscious bias, and social norms that discriminate against women and girls.

The following outward-facing recommendations are directed to the extractive industry:

1. **Proactively lobby governments to change laws that discriminate against women.** Focus on those laws that impede women's access to employment, land ownership, inheritance, ability to access credit or loans or enter into contracts, or impose restrictions on travel. Seek to amend laws to be in line with international legal standards of equality and non-discrimination.
2. **Consult with community stakeholders to ensure that actions and funding target what is needed.** Such consultations should be open, informed, and accessible to workers, both male and female. For example, this may mean ensuring that consultations happen in the community where the extractive project is taking place, rather than in the capital or large cities that are difficult or costly for worker and community members to reach.
3. **Ensure that entry-level or professional development training is accessible and located in the same communities as the mining workforce is.** In some countries, private companies provide all training in the capital or other large cities. As a result, workers' capacity to gain professional development is limited by travel, expense, and family commitments.
4. **Foster collaborations with civil society working on women's rights, violence against women, and gender equality within the extractive industries.**
5. **Conduct an assessment to evaluate compliance with international standards.** Include assessment under relevant International Labor Organization conventions, the Convention on the Elimination of Discrimination Against Women, the International Convention on Economic, Social and Cultural Rights, and the International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families.
6. **Develop strategies for the economic empowerment of local women either as workers or entrepreneurs.** Identify strategies for the economic empowerment of local women in the community where the project takes place. Establish requirements for subcontractors to employ local women workers and female owned firms; provide incentives for employing women or women owned firms; and promote joint ventures and alliances that include women owned firms.⁴²³

⁴²³AFRICAN NATURAL RESOURCES CENTER, AFRICAN DEVELOPMENT BANK, WOMEN'S ECONOMIC EMPOWERMENT IN OIL AND GAS INDUSTRIES IN AFRICA 8 (2017).

The following inward-facing recommendations are directed to the extractive industry:

1. **Establish gender diversity as a strategic business imperative at all levels of the organization, visibly led by the CEO and senior leadership.**⁴²⁴ Changing the culture is key; top leadership must be the driving force behind increasing gender diversity as many employees take their lead on the issues from senior leadership.⁴²⁵
2. **Conduct a regular gender audit that evaluates how gender equality is incorporated into policies, procedures, programs, budgets, and infrastructure.** The ILO's Manual for Gender Audit Facilitators may serve as a model and practical guide at https://www.ilo.org/gender/informationresources/WCMS_187411/lang-en/index.htm.
3. **Consult with diversity experts and organizations to build and support effective diversity programs.** Successful diversity programs set forth clear goals, have top-level commitment, have a clear communication system, encourage company-wide involvement, and provide for accountability in meeting goals.⁴²⁶
4. **Set and maintain challenging, but achievable, goals and objectives for gender diversity.**⁴²⁷ Ensure there are diversity goals, metrics and standards for women as a percentage of board members, management, teams, and job levels, to prioritize recruitment and the promotion of qualified women and greater gender diversity. Importantly, female representation should not be limited to observer roles but have explicitly active roles to play.⁴²⁸
5. **Recognize and mitigate unconscious biases in the recruitment, retention, evaluation, remuneration, promotion, and career planning processes.** Such efforts can include training for all management to understand diversity issues and to address personal biases, modifying procedures and infrastructure to diminish bias in decision-making, and understanding behavioral principles to influence ideas and inhibit bias.⁴²⁹
6. **Promote STEM programs for girls and young women.** To deepen the talent pool, develop outreach and partnership programs at the middle school, high school, and university levels to promote STEM for girls to encourage the next generation. Company leaders and mentors must work to encourage girls and young women to choose science and technology as a career path and should sponsor and train talented women in business schools.
7. **Establish clear recruiting targets for women and men in all areas of employment for technology roles.**

⁴²⁴WORLD ECONOMIC FORUM, CLOSING THE GENDER GAP IN OIL & GAS: A CALL TO ACTION FOR THE INDUSTRY 1 (2016).

⁴²⁵THE BOSTON CONSULTING GROUP & WORLD PETROLEUM COUNCIL, UNTAPPED RESERVES 5 (2017).

⁴²⁶McKINSEY & Co., DIVERSITY MATTERS 21 (2015).

⁴²⁷WEF, CLOSING THE GENDER GAP 1 (2016).

⁴²⁸PINK PETRO, A RESPONSE TO WORLD ECONOMIC FORUM CALL TO ACTION IN CLOSING THE GENDER GAP IN OIL & GAS 6 (2016).

⁴²⁹McKINSEY & Co., DIVERSITY MATTERS 16-17 (2015).

- 8. Emphasize the wide range of job types available to women in the industry.** Promote roles in engineering, the sciences, supply chain operations, geological research, environmental science and management, etc. Avoid job descriptions, announcements, advertisements and recruiting materials that use biased or gendered terms like “he/she” or “foreman.”⁴³⁰
- 9. Increase the number and visibility of senior leaders in the industry as role models.**⁴³¹
- 10. After hire, ensure women are offered the same career advancement opportunities as men.** Women should be encouraged to make their career goals clear, to create a career path plan, and to request career opportunities that include greater demands. Companies should ensure women are given equal opportunity to participate in career-relevant training and networking. Companies also should ensure that unstated assumptions about whether women have the skills or flexibility for a position do not influence job or promotion decisions.
- 11. Develop separate and sufficient facilities and accommodations for women working in field roles.**⁴³² Take into consideration women’s preferences, perceptions, and needs when designing work and living space for women in the field, including adequate lighting and toilets, uniforms, and on-site health facilities with at least one female staff member. Design and provide tools and equipment, safety devices, and required clothing that is sized appropriately for women.
- 12. Create and implement work-life policies and offer services that make the company more accommodating for both genders.** These can include paid parental leave upon birth or adoption of a child, flextime, flexible work arrangements, on-site childcare facilities, and transportation for employees working in the field, etc.
- 13. Create clear guidelines for job promotion and pay.** Define promotion criteria and standards fully based on skills and accomplishments and apply equally to women and men.⁴³³ Ensure promotion decisions are objective, taking into consideration only the employee’s qualifications. Develop pay grades for all positions to ensure equal and fair compensation for women and men performing the same work or job.⁴³⁴
- 14. Create a sponsorship and mentoring programs for women employees.** Require senior level employees, both male and female, to sponsor talented younger female employees and provide one-on-one mentoring and leadership coaching.⁴³⁵ Sponsors should provide career guidance and sponsor female employees for career advancement. This is key in the area of technical and expatriate jobs in the field, which often are stepping stones to more senior roles.

⁴³⁰INTERNATIONAL FINANCE CORPORATION, INCREASING GENDER DIVERSITY FROM THE WORKFORCE TO THE BOARD ROOM: A TOOLKIT OF ACTIONS AND STRATEGIES FOR OIL, GAS AND MINING COMPANIES 61 (2018).

⁴³¹BCG & WPC, UNTAPPED RESOURCES 6 (2017).

⁴³²*Id.* at 23.

⁴³³*Id.* at 30.

⁴³⁴PINK PETRO, A RESPONSE TO WORLD ECONOMIC FORUM CALL TO ACTION IN CLOSING THE GENDER GAP IN OIL & GAS 6 (2016).

⁴³⁵TBCG & WPC, UNTAPPED RESOURCES 23 (2017).

- 15. Implement leadership development training programs for women.**⁴³⁶ Develop in-house or use outside programs to promote diversity balance at the senior levels of the company.
- 16. Provide women with opportunity for roles and responsibilities they may not have considered for themselves.** Give them the support and training necessary to achieve success in the roles.⁴³⁷
- 17. Broaden the career paths from which senior-level employees are identified or selected.**⁴³⁸ Traditionally, high potential employees are selected from a small number of career paths that are predominantly male-populated. Alternative career paths must be considered to expand and diversify the pool from which top company officials are promoted.
- 18. Ensure sexual harassment and anti-retaliation policies are in place, including recourse to an effective remedy.**

⁴³⁶Pink Petro, A Response to World Economic Forum Call to Action in Closing the Gender Gap in Oil & Gas 4 (2016).

⁴³⁷BCG & WPC, UNTAPPED RESOURCES 28 (2017).

⁴³⁸*Id.* at 28.



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