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A low-angle photograph of a woman in mining attire, including a hard hat with a headlamp and a dark work jacket with reflective stripes. She is looking upwards with a determined expression. The background shows a blurred industrial structure under a cloudy sky. A large white arrow graphic points from the left towards the text.

▶ Women in mining

Towards gender equality

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Towards gender equality

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Women in mining: Towards gender equality

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Foreword

The International Labour Organization (ILO) is the United Nations specialized agency dedicated to advancing opportunities for women and men to obtain decent and productive work in conditions of freedom, equity, security and human dignity. The ILO Sectoral Policies Department promotes decent work by supporting the Organization's tripartite constituents, namely governments, employers and workers, in seizing opportunities and addressing challenges in 22 different economic and social sectors at the global, regional and national levels.

Large- and small-scale mining is the main livelihood of millions of men and women in mining countries and mining communities across the world, and this has been the case for centuries. Yet women, despite their significant contribution to the extraction of valuable resources and raw materials, have frequently been excluded from underground mining and many other forms of mining, and continue to face discrimination and barriers to decent work in the mining sector today.

In artisanal and small-scale mining in the informal economy, women constitute up to a third of the workforce. Although their work is as hazardous and precarious as that of men, it is usually less valued, and women are generally less protected. In LSM operations, women rarely make up more than 10 per cent of mineworkers, and are most frequently employed in administrative positions. In many countries, women are prohibited by law from working in particular roles and forms of mining, particularly underground mining.

Until recently, this discriminatory practice was reflected in international labour standards, notably in the ILO Underground Work (Women) Convention, 1935 (No. 45), which is still in force in 68 Member States today. Following a comprehensive review of occupational safety and health conventions and recommendations, however, the fourth meeting of the Standards Review Mechanism Tripartite Working Group (held in Geneva from 17 to 21 September 2018) recommended that Convention No. 45 should be classified as outdated. At its 334th Session in October–November 2018, the Governing Body of the International Labour Office approved the recommendation and placed an item concerning the abrogation of the Convention on the agenda of the 113th Session of the International Labour Conference (2024).

The present study is prepared in response to a related recommendation of the Standards Review Mechanism Tripartite Working Group and at the request of the Governing Body so that it may consider “appropriate follow-up action to address any challenges for women workers in the mining sector, including with respect to whether specific technical assistance is necessary”. It is intended to assist governments, employers and workers in mining countries in their work ahead to revise and update outdated legislation, and to formulate and implement an integrated and coherent package of policies and measures to advance gender equality and decent work in mining.

The study is the result of the combined efforts of colleagues across the ILO. It has been prepared by Camila Meireles, Technical Officer, Extractives and Energy, and Casper N. Edmonds, Head of the Extractives, Energy and Manufacturing Unit.

Alette van Leur

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Abbreviations

ASM	artisanal and small-scale mining
CEO	chief executive officer
COVID-19	coronavirus disease
GDP	gross domestic product
ICMM	International Council on Mining and Metals
IFC	International Finance Corporation
IGF	Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development
LSM	large-scale mining
MNE	Declaration Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy
RMI	Responsible Mining Index
SDG	Sustainable Development Goal
SME	small and medium-sized enterprise
STEM	science, technology, engineering and mathematics
UN	United Nations

Introduction



1.

1.1 Purpose

At its 334th Session, which was held from 25 October to 8 November 2018, the Governing Body of the International Labour Office approved the recommendations of the fourth meeting of the Standards Review Mechanism Tripartite Working Group and requested the Office to commence work on a study on gender equality in the mining sector (ILO 2018a, para. 761(d)).¹

The objective of this study is to contribute to a better understanding of the issues faced by women in mining, and the key challenges and opportunities to advance gender equality and decent work in the sector. The purpose is to assist the Governing Body in its consideration of “appropriate follow-up action to address any challenges for women workers in the mining sector, including with respect to whether specific technical assistance is necessary” (ILO 2018b, Annex, para. 11). By applying both a gender lens and the human-centred approach set out in the ILO Centenary Declaration for the Future of Work, 2019, the study has therefore been prepared with a view to inspiring action by the ILO, its constituents and partners at the sectoral, national, regional and global levels to bring about a brighter future of work for women and men in mining operations and communities.

1.2 Methodology

This study draws upon a desk review of existing literature on women who work in the mining sector and their contribution to the development of the global mining industry, as well contributions from key informants and experts:

- The desk review covered a wide range of the most recent reports and studies on challenges and opportunities for women in the mining industry. The review uncovered the existence of a robust body of academic research on the subject.
- The key informants and experts represent leading organizations that are advancing gender equality and decent work in mining. They included, among others, ILO specialists, industry leaders, and representatives of workers’ organizations, governments and Women in Mining (WIM) organizations. The informants and experts were selected on the basis of their experience and knowledge of mining, gender equality and decent work.

¹ The study is prepared within the context of the recurrent discussion on labour protection due to take place at the International Labour Conference in 2022.

The global modelled estimates regarding employment in mining and quarrying were retrieved from the ILOSTAT database. While the situation varies from country to country, there is generally a lack of reliable data on employment, working conditions, safety and health, and other aspects of the decent work agenda in both large-scale mining (LSM), and artisanal and small-scale mining (ASM), particularly gender statistics² and data disaggregated by sex. As noted by the World Bank (2019), which has carried out extensive research on ASM in recent years, “Apart from a series of outdated employment and production estimates in select countries, little is known about the organizational structures of ASM, the backgrounds of those engaged, and the production networks the mineral ores they extract supply.”

1.3 Structure of the paper

This study is organized into five chapters. Chapter 2 depicts the mining sector at a glance, as well as some of the critical challenges it faces. Chapter 3 describes the history and roles of women in the male-dominated mining industry, and the issues and barriers that women continue to face today. Chapter 4 presents both the challenges and opportunities to advance gender equality in the mining sector in terms of the four strategic objectives of the Decent Work Agenda: employment creation, social protection, rights at work and social dialogue. Finally, Chapter 5 sets out suggestions for policies and measures to advance gender equality and decent work in mining.

² According to the United Nations (2016), “gender statistics are defined as statistics that adequately reflect differences and inequalities in the situation of women and men in all areas of life”. They are “defined by the sum of the following characteristics: a) Data are collected and presented by sex as a primary and overall classification; b) Data reflect gender issues; c) Data are based on concepts and definitions that adequately reflect the diversity of women and men and capture all aspects of their lives; d) Data collection methods take into account stereotypes and social and cultural factors that may induce gender bias in the data”.

The mining sector at a glance



2.

Mining is the general term used to describe “the extraction of any naturally occurring mineral substances – solid, liquid, gas – from the earth or other heavenly bodies for utilitarian purposes” (Hartman and Mutmansky 2002). Mining operations exist in almost all countries, and increasingly at sea.

Minerals are basic and essential raw materials in our daily lives, and are vital for economic, social and technological development. They are used in all sectors, from agriculture to electronics, and in food production, energy, construction, transport, manufacturing, information and communication, and technology, to name but a few.

For the purposes of this study, the mining sector is defined as it has been classified in the *International Standard Industrial Classification of All Economic Activities, Revision 4* (UN 2008), where mining activities have been categorized into divisions, groups and classes on the basis of the principal mineral produced. Divisions 05 and 06 are concerned with mining and quarrying of fossil fuels (coal, lignite, petroleum and gas), while divisions 07 and 08 cover metal ores, various minerals and quarry products. Some technical operations, particularly those related to the extraction of hydrocarbons, may also be carried out for third parties by specialized units as an industrial service, which is reflected in division 09.

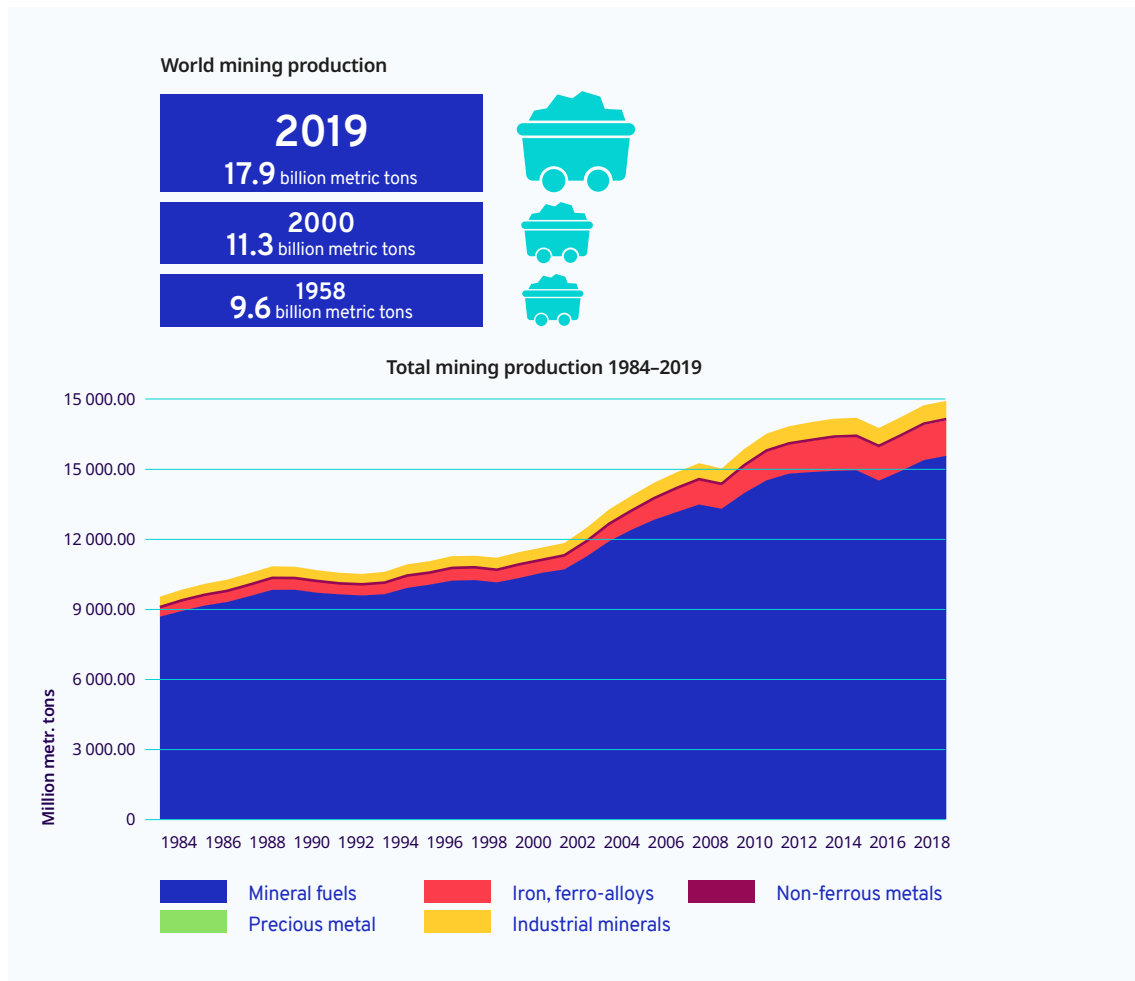
2.1 Production, growth and trade

The importance of mining to global economic development is undisputed. Coal, for instance, was one of the first widely used sources of energy and one of the most important pillars of the First Industrial Revolution of the late eighteenth century. It was also the backbone of industrial progress at the beginning of the twentieth century, and contributed to the enormous growth in wealth in what are today the most industrialized countries.

Since 2000, mining has grown steadily, but with important shifts across continents. There has been a high concentration of production of mineral fuels (steam coal, coking coal, lignite, natural gas, crude petroleum, oil sands, oil shales and uranium), as well as a strong increase in the production of rare earth minerals and key commodities for battery technology, such as lithium and cobalt, in the last ten years (Austria, Federal Ministry of Agriculture, Regions and Tourism 2021).

World mining production reached 17.9 billion metric tonnes in 2019 (see **figure 1**). The numbers show that Asia was responsible for 59 per cent of the world’s total mining production, with China leading in 32 different commodities. China’s economic expansion has contributed to the continued high levels of production of mineral fuels, iron ore and other industrial minerals.

► Figure 1. World mining production



Source: Austria, Federal Ministry of Agriculture, Regions and Tourism 2021.

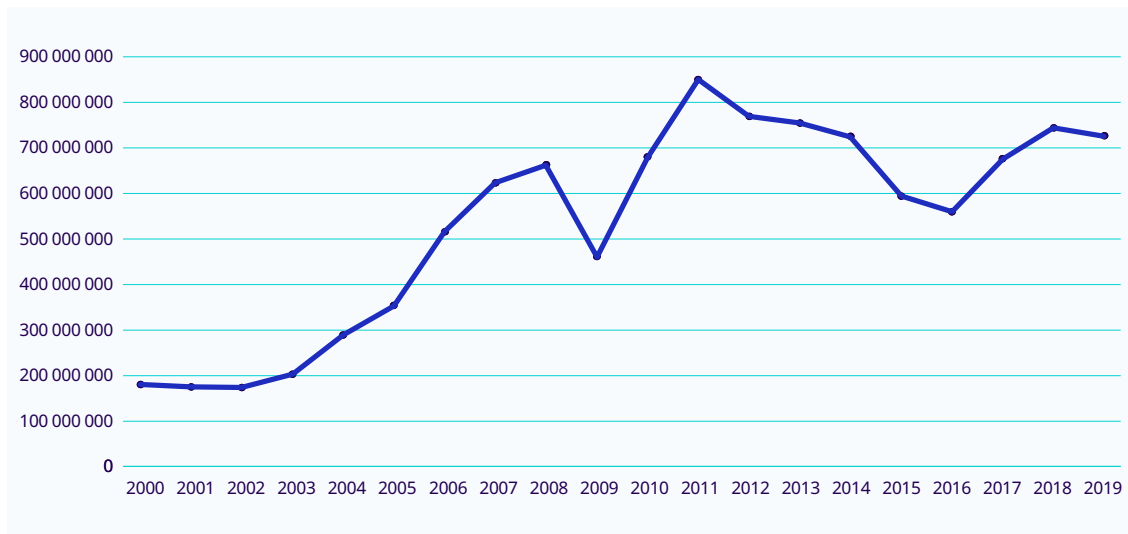
Mining makes a significant contribution to the economic growth of resource-rich countries. In 2017, mineral rents³ amounted to 10.8 per cent of Chile's gross domestic product (GDP), for example, and 12.5 per cent of that of Zambia (World Bank, n.d.-a). Since mines are often located in remote regions with few alternatives for income generation, mining can make an even more important contribution to local mining communities than is captured in official data.

The United Nations Conference on Trade and Development (UNCTAD) reported that worldwide trade in ores and metals⁴ had reached US\$742.8 million in 2018, dropping slightly to US\$724.8 million the following year (see [figure 2](#)).

3 According to the World Bank (n.d.-a), "Mineral rents are the difference between the value of production for a stock of minerals at world prices and their total costs of production. Minerals included in the calculation are tin, gold, lead, zinc, iron, copper, nickel, silver, bauxite, and phosphate."

4 In the [UNCTAD classification](#) (2021), ores and metals comprise the commodities in Standard International Trade Classification sections 27 (crude fertilizers other than division 56, and crude minerals), 28 (metalliferous ores and metal scrap) and 68 (non-ferrous metals).

► **Figure 2. Ores and metals exports in thousands of US dollars, annual**



Source: UNCTAD, n.d.

In 2019, ores and metals exports accounted for 28.5 per cent of merchandise exports from South Africa, 32.8 per cent of Australian exports and 45.5 per cent of Peruvian exports (World Bank, n.d.-b).

2.2 Structure of the mining industry

Through mergers and acquisitions, the mining industry continues to consolidate, and has come to be characterized by a group of very large multinational companies, both private and state-owned. In 2018, the value of announced transactions reached US\$30 billion (PwC 2019). This has since declined, however, due to the impact of the coronavirus (COVID-19) pandemic (PwC 2020) and the divestment by major mining companies of their thermal coal operations (PwC 2021).

These major producers coexist with medium-sized companies, prospectors, exploration juniors and small producers, and with numerous small and medium-sized enterprises (SMEs) in their supply chains, both globally and in local mining communities.

ASM also provides an important source of income for millions of men and women in more than 80 countries, and is estimated to produce more than 80 per cent of global sapphire, 20 per cent of gold and up to 20 per cent of diamonds (World Bank 2013). In some countries, more than 50 per cent of mineral production is mined by ASM. This is the case in Mongolia, for instance, where ASM produced 63 per cent of the gold production sold to the Bank of Mongolia in 2017 (World Bank 2019), and in Nigeria, where ASM is responsible for 90 per cent of solid minerals mined in the country, including gold, barite, cassiterite, limestone, gemstones and gypsum (GEUS 2011).

There is no common definition of ASM, but international organizations have described it as being characterized by a “low level of mechanization, physically demanding work, low levels of safety, health, environment and social security awareness, poor qualifications of employees, low level of productivity, seasonal or periodic operations” (Coderre-Proulx, Campbell, and Mandé 2016). The last time the tripartite constituents of the ILO discussed social and labour issues in small-scale mines at a meeting of experts in 1999, they agreed on wide-ranging conclusions, but these did not include a definition of ASM (Jennings 1999; ILO 1999).

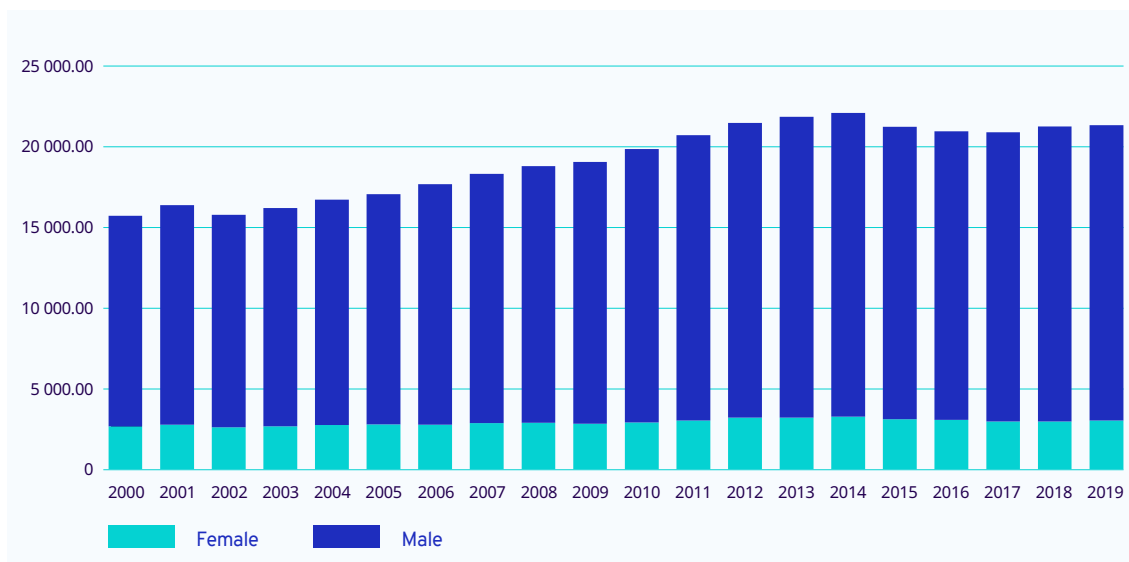
2.3 Mining jobs

According to the International Standard Classification of Occupations (ILO, n.d.-d):

- Miners and quarry workers extract solid minerals from underground or surface mines or quarries. Tasks include -
 - (a) extracting coal, ores and other solid minerals from underground or surface mines;
 - (b) extracting granite, limestone, slate, flint or other kinds of rocks from quarries;
 - (c) setting and operating machines which cut channels or drill blasting holes into the open face of mines or quarries;
 - (d) cutting, fitting and installing wood or steel props, pillars and arches to support walls and roof of underground workings;
 - (e) collecting samples of coal or ore for laboratory analysis;
 - (f) extracting chalk, clay, gravel or sand from open pits;
 - (g) performing related tasks;
 - (h) supervising other workers.

According to ILO modelled estimates (ILO, n.d.-b), some 21.4 million workers were employed in mining and quarrying in 2019, of which an estimated 18.3 million were men and 3.1 million were women. While employment in mining and quarrying has grown over time, the number of women has remained relatively stable and the share of women has remained low (see **figure 3**).

► **Figure 3. Mining employment, by sex (2000–19), thousands**



Note: These estimates are based on data collected by ILO Member States. Given the informal nature of ASM, the data collected are likely to exclude large numbers of women and men in ASM.

Source: ILO, n.d.-b.

The majority of formal jobs are usually found in LSM settings and are more often held by men rather than women (see Chapter 3). According to the World Bank, mining companies rarely employ, on average, more than 10 per cent of women in their workforce (Eftimie, Heller and Strongman 2009).

In stark contrast to LSM, which is highly automated, ASM is highly labour-intensive (Coderre-Proulx, Campbell, and Mandé 2016). Most ASM workers operate in the informal economy outside legal frameworks. They are frequently not accounted for in national labour force surveys, and hence estimates of ASM employment are based on limited data and vary greatly. According to the latest data published by the World Bank, ASM employs at least 44.75 million people worldwide and is a source of income for at least a further 134 million people (World Bank 2020a), which would make ASM the most important non-farming rural activity in the developing world. Both the World Bank and the Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development (IGF) estimate that ASM has seen sustained growth over the years, in large part because mining is better remunerated than other economic activities (Fritz et al. 2017). As mentioned above, it is estimated that women constitute, on average, about one third of the ASM workforce worldwide. In addition, although women have consistently been taking jobs in the mining sector, these continue to be less-skilled and lower-paid jobs (Perks and Schulz 2020).

Mining furthermore generates indirect jobs in local mining communities through local procurement and the development of business activities to service the mines. Induced employment opportunities are also created through satellite economic activities such as hotels, restaurants and shops. However, there are no reliable quantitative or qualitative data about mining-related indirect jobs in local communities, or whether these are carried out by women or men. According to the International Council on Mining and Metals (ICMM 2016), “Currently no reliable or comparable data is produced for all countries but what data exists suggests that mining typically contributes only around 1–2 per cent of total employment in a country – but when indirect and induced employment is included, this can jump to 3–15 per cent.”

2.4 Mining cycles and drivers of change

Mining is a cyclical industry, expanding and retracting depending on commodity prices, as well as “regulation, geopolitical risk, legal limits on natural resource use, shareholder activism and public scrutiny” (Maennling and Toledano 2019). Between 2004 and 2011, the mineral industry experienced a “super cycle”, which was driven by high demand from China. These cycles have a significant impact on the industry and its workers as well as for investors, enterprises in mining supply chains, and local mining communities. The sharp drop in demand for minerals during downcycles has a negative impact on prices and revenues, which in turn forces mining companies to reduce operations and spending. This impact is felt throughout mining supply chains, with fewer opportunities for suppliers of goods and services, and a loss of jobs and livelihoods in the industry itself and in mining communities.

The mining sector is undergoing profound and rapid changes today due to the following megatrends and drivers of change:

- ▶ Demographic shifts, urbanization and the increasing purchasing power of middle-class consumers in some regions are likely to increase demand for minerals.
- ▶ Policies and action to address climate change are increasingly causing parts of the mining industry to reduce their own emissions and negative impact on the environment. At the same time, the transition to a low-carbon economy will further fuel demand, since low-emission energy and transport systems are more mineral-intensive than those based on fossil fuels.
- ▶ Technological advances will furthermore increase demand for minerals, but more so for cobalt, lithium and rare earth minerals than traditional ores. Automation and digitalization will, moreover, make it possible to mine more efficiently and with fewer occupational safety and health hazards. New technologies could also make it possible to mine in new ways, including deep-sea mining, asteroid mining and microbe mining.

- Conversely, geopolitics and a new era of globalization, characterized by a much higher degree of uncertainty and volatility, may weaken global economic growth and demand for minerals. These developments have been exacerbated by the devastating COVID-19 crisis, which disrupted global supply chains and led to unprecedented job losses and enterprise closures. In this regard, rising poverty, inequality and civil unrest in many countries are increasingly likely to undermine the social licence of large mining companies to operate.⁵

While these drivers and megatrends will affect decent work opportunities for women and men in the mining industry in years to come, the experience of the ILO in its first century has confirmed that the continuous and concerted action of governments and representatives of employers and workers is essential to shaping a future that works for all. The [Centenary Declaration for the Future of Work, 2019](#), calls upon ILO to

- further develop its human-centred approach to the future of work by:
 - A. Strengthening the capacities of all people to benefit from the opportunities of a changing world of work through:
 - (i) the effective realization of gender equality in opportunities and treatment;
 - (ii) effective lifelong learning and quality education for all;
 - (iii) universal access to comprehensive and sustainable social protection; and
 - (iv) effective measures to support people through the transitions they will face throughout their working lives.

2.5 The contribution of mining to sustainable development

There is widespread recognition that mining can contribute to achieving [Sustainable Development Goal \(SDG\) 8](#) on decent work and economic growth, and other SDGs (UNDP et al. 2016), provided that the negative impacts on the environment, workers and local communities are effectively addressed. In recent years, governments, employers and workers have taken measures to advance gender equality in line with [SDG 5](#), which is to achieve gender equality and empower all women and girls. The goal reflects that women and girls continue to suffer discrimination and violence in every sector and in every part of the world, and that gender equality (see **box 1**) is “not only a fundamental human right, but a necessary foundation for a peaceful, prosperous and sustainable world”.

⁵ According to Moffat and Zhang (2014), “A social licence to operate refers to the ongoing acceptance and approval of a mining development by local community members and other stakeholders that can affect its profitability.”

► **Box 1. Gender equality and equity****UN Women describes gender equality as follows:**

Equality between women and men (gender equality): refers to the equal rights, responsibilities and opportunities of women and men and girls and boys. Equality does not mean that women and men will become the same but that women's and men's rights, responsibilities and opportunities will not depend on whether they are born male or female. Gender equality implies that the interests, needs and priorities of both women and men are taken into consideration, recognizing the diversity of different groups of women and men. Gender equality is not a women's issue but should concern and fully engage men as well as women. Equality between women and men is seen both as a human rights issue and as a precondition for, and indicator of, sustainable people-centred development.

Source: UN Women, n.d.-a.

At the same time, the mining industry has come under increasing public scrutiny for its social and environmental practices. The collapse in 2019 of the tailings dam at Brumadinho, Brazil, which claimed the lives of 270 people and polluted local rivers, and the destruction of the Juukan Gorge in Western Australia in 2020, which destroyed a 46,000-year-old sacred aboriginal site, has further highlighted the power imbalance between large mining companies and local communities, as well as the need to protect and respect the rights of indigenous and tribal peoples in all mining countries, in line with the [United Nations Declaration on the Rights of Indigenous Peoples](#), and ILO's [Indigenous and Tribal Populations Recommendation, 1957 \(No. 104\)](#), and [Indigenous and Tribal Peoples Convention, 1989 \(No. 169\)](#).

As a result, mining companies everywhere are re-examining their roles in society and their contribution to social, environmental and economic goals. This involves improving their relationships with local host governments, indigenous peoples, mining communities, workers and suppliers, as well as addressing the complexity of operating in an environment shared with ASM operators, while reducing the environmental impact of mining as far as possible, and respecting human and labour rights.

In this regard, both employers and workers in the LSM sector are themselves increasingly turning to international instruments, principles and standards to benchmark and improve the performance of the industry and its contribution to decent work and sustainable development. These include the UN [Guiding Principles on Business and Human Rights](#), the [ILO Declaration on Fundamental Principles and Rights at Work](#), the [Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy](#) (MNE Declaration), the [OECD Guidelines for Multinational Enterprises](#), the [IFC Performance Standards on Environmental and Social Sustainability](#), the Women's Empowerment Principles by UN Women and the UN Global Compact, and several international labour standards of the ILO, among others.

Governments too have increasingly taken action to advance the contribution of mining to inclusive economic and social development. The [Africa Mining Vision](#) is a policy framework created by the African Union in 2009 to ensure that Africa utilizes its mineral resources strategically for broad-based, inclusive development. Progress towards gender equity and the empowerment of women is included in the tentative framework for action to implement the Africa Mining Vision.

Women in mining



3.

The lived experiences of women vary throughout the stages of their lives and are shaped by the cultures, ethnic groups, countries, societies, classes or families they come from, move to, reinforce and change. Throughout human history, traditional gender roles have often defined and limited women's activities and opportunities. This has contributed to multiple discrimination against women on the grounds of their racial or ethnic origin, national extraction, colour, religion or belief, social origin, disability, age or sexual orientation.

However, in recent history, gender roles and identities have changed greatly, and continue to do so. Through a combination of economic changes, education, and the efforts of human rights and labour advocates, and the feminist movement, in many societies, women have gained access to careers, lifestyles, opportunities and rights they have previously been denied. Yet despite these advances, women in many countries and sectors of the economy still face significant challenges, including in relation to education, motherhood, healthcare, civil and economic rights, the work they do, the careers and livelihoods they pursue, and both conscious and unconscious bias at work (see **box 2**).

► **Box 2. Conscious and unconscious gender bias**

Gender equality in the world of work is generally undermined by the widespread problem of conscious – as well as unconscious – bias, whereby women are sometimes held back by gender stereotypes, company practices and structures that favour men's traditional roles and lifestyles over those of women.

According to the Office of the United Nations High Commissioner for Human Rights, "A gender stereotype is a generalized view or preconception about attributes or characteristics, or the roles that are or ought to be possessed by, or performed by, women and men." The widespread expectation that strong performance requires availability and mobility at any time burdens women in contexts where gender stereotypes are consciously perpetuated, since it frequently means that men are offered opportunities over women, who are assumed to shoulder housework and caretaking responsibilities, even though this might not be the case.

Unconscious gender bias is also an issue in the mining sector, but is more difficult to identify and prevent. Mining companies can address unconscious gender bias by proactively assessing it in their operations, measuring its impact on workers and taking action to prevent gender bias, through recruitment and talent management, training, project assignments and selection for the leadership pipeline.

Source: ILO 2017a; OHCHR, n.d.

3.1 History of women in the mining sector

Since the early modern period, women have been extensively involved in mining in different parts of the world. However, with the industrialization and mechanization of mining at the end of the eighteenth century, women were gradually excluded from mining, in part because of the emergence of the male breadwinner model and “laws to protect women and children, resulting in the ban on and the exclusion of women and children from working in underground mines” (Romano and Papastefanaki 2020). By 1934, in a report to the International Labour Conference, the International Labour Office stated that “the employment of women underground in mines no longer exists, or is dying out, within the metropolitan territories of the States Members of the International Labour Organization” (ILO 1934). This was seen as a positive development, as a way to protect women from the hardships of mining and work that was considered unsuitable for them.

The history of women in the mining sector is inextricably linked to assumptions regarding “masculine” and “feminine”, and how this perceived dichotomy has informed gender roles and identities in mining countries and communities. Ideas of appropriate roles for men and women, and the corresponding division of labour were gradually ingrained in the sector and adapted over time to accommodate prejudices based on class, ethnicity and race (Gier and Mercier 2006). These assumptions and ideas effectively established a gendered division of labour, whereby production was the realm of men and reproduction that of women. Moreover, it suggested a hierarchy between these functions in favour of men’s labour (Fernandes S. de Brito 2017).

As a result, masculinity has historically been associated with miners, in particular with colliers, who have long been the embodiment of miners. Mining is consistently characterized in the literature and in the collective imagination as inherently masculine, demanding strength and courage, as well as resilience to face danger and survival in difficult situations (Benya 2017a). This heightened notion of masculinity based on strength and aggression has been referred to by academics as “hypermasculinity” (Harris 2000). Over time, mine culture has been moulded in the image and likeness of hypermasculinity, not only by the sheer number of men that work in mines, but also by their constructed brotherhood, solidarity and sense of belonging (Lahiri-Dutt 2011).

In contrast, the presence of women in mines was not only perceived as unnatural, but became feared by many through the dissemination of myths and stories of their presence being the cause of accidents (Castilhos and Castro 2006; Perks and Schulz 2020). Such elaborate justifications and discourse – consisting mainly of superstitions, traditions and prejudices – has ultimately normalized women’s exclusion from mining.

In 1934, for instance, when the International Labour Office issued a questionnaire to ascertain the views of governments regarding the employment of women in underground mining, where it still existed, the majority of the 28 Member States that responded considered it desirable to prohibit the employment of women as a way to protect them from hazardous work. Switzerland, for example, was of the opinion that “laborious manual work underground is certainly not appropriate to women” (ILO 1935). The following year, the International Labour Conference adopted the now outdated [Underground Work \(Women\) Convention, 1935 \(No. 45\)](#), which prohibited women from working in underground mining.⁶ The Convention was eventually ratified by 98 Member States and is still in force in 68 countries today.

⁶ There were exceptions, namely: “(a) females holding positions of management who do not perform manual work; (b) females employed in health and welfare services; (c) females who, in the course of their studies, spend a period of training in the underground parts of a mine; and (d) any other females who may occasionally have to enter the underground parts of a mine for the purpose of a non-manual occupation”. However, even these exceptions were strongly opposed by British workers.

These traditional gender stereotypes have not only excluded women from working underground. More broadly, they have contributed to making the work of women in the mining sector invisible and regarded as less important. In the early twentieth century, mining companies operating Chilean copper mines attempted to create a stable and reliable workforce built around the male miner by promoting a vision of “sober, industrious fathers and good Christian mothers” (Gier and Mercier 2006). Gender roles were assigned accordingly, whereby men officially became wage earners and women supportive housewives (Klubock 1996).

South African mining culture is also marked by gendered solidarity and the notion that “one cannot be female and mine, or be in mining and be ‘feminine’” (Benya 2017a). During the years of apartheid, the underground mining workforce was entirely composed of men. Women’s roles were limited to administrative activities or health clinics, and these jobs were mostly held by white women. The invisible unpaid care work of black South African women in support of the mineworkers and their communities was largely unrecognized (Benya 2017b).

The attribution of such roles was not exclusive to these mines, but permeated mining worldwide, propagating traditional views of what is acceptable for men and for women in all forms of mining. In ASM today, the work of women is generally considered less important than that of men. This is mainly due to the informal nature of the work done by women, who often form part of a work group based on family labour, and its intertwinement with women’s domestic workload, which in many countries is not considered productive work.

A notable exception in the history of women in mining occurred in the 1940s. During the Second World War, a labour shortage forced governments, companies and unions in Australia, Canada, the United States of America and many other countries to recruit women to fill critical mining positions. However, the “postwar period brought a rapid resumption of restrictions, and old gender barriers were re-erected as men returned home to their jobs and women were discharged” (Mercier 2011).

Years later, in the 1970s, wanting to guarantee their right to gainful employment of their choice, women miners in the United States won a class-action lawsuit that required Appalachian coal companies to hire women. This resulted in an increase of women miners in the region from 1 per cent in 1977 to 10 per cent in 1979 (Mercier 2011). It also reflected how perceptions of the roles and rights of women in society had begun to change, both in general and in mining specifically.

3.2 Roles of women in large-scale mining

While the mining sector remains male-dominated today, women work in an increasingly wide range of roles, including as board members (see **box 3**), chief executive officers (CEOs), mine managers, mine engineers, mineworkers, administrative staff, contractors and suppliers, among others.

► **Box 3. Women on boards and in senior management positions of mining companies**

A study of women on the boards of mining companies by PricewaterhouseCoopers in 2013 found that women held only 5 per cent of seats on boards at the top 500 mining companies. It concluded that the mining industry had the lowest number of women on boards of any sector in the world.

In a separate report on the top 40 mining companies, PricewaterhouseCoopers concluded that the proportion of women on boards had increased marginally from 19 per cent in 2018 to 21 per cent in 2019, putting these mining houses on a par with the average for Fortune 1000 companies.

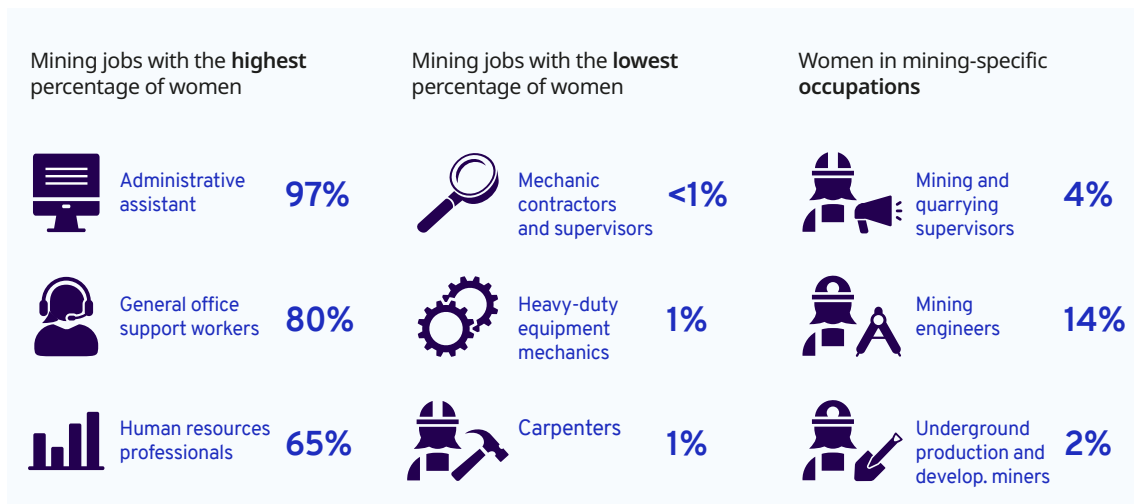
With regard to women in senior management positions, ILO’s *Women in Business and Management* report from 2019 found that only 11 per cent of the mining companies included in the survey had a female CEO, which is lower than the average of 16 per cent in the large enterprises surveyed. Eleven of the top 40 mining companies did not have any women in senior management positions.

Source: ILO 2019a; WIM (UK) and PwC 2013; PwC 2018; PwC 2019.

With the exception of women on boards and in senior management positions, global and regional data on women in mining are hard to find and highly unreliable. However, some countries do keep data disaggregated by sex that provide an overview of the share of women employed in different roles in the formal and LSM sector.

Canada, a country with a strong tradition of LSM, ranks in the top five producers of 16 major minerals and metals (potash, uranium, niobium, nickel, gemstones, indium, aluminium, platinum group metals, cobalt, cadmium, graphite, sulphur, diamonds, titanium, gold and mica) (Marshall 2018). Around 16 per cent of its mining workforce are women (MiHR 2018), although they are more likely to be found in positions off the mining site (see **figure 4**).

► **Figure 4. Women in mining in Canada**



Note: Based on Statistics Canada Census 2016.
Source: MiHR 2018.

In Canada, most producing mines or exploration properties are located within 200 kilometres of indigenous communities, and they are often located on traditional lands. Proportionally, the mining industry is the largest private sector employer of indigenous Canadians, who accounted for nearly 7.5 per cent of the mining workforce in Canada in 2016 (Marshall 2019). However, indigenous women find it difficult to advance in the mining industry due to multiple discrimination and issues of systemic racism and sexism, harassment and bullying, sexual extortion, and violence (Bond and Quinlan 2018).

Mining is also a leading industry in Australia, which is one of the largest exporters of iron ore, coal, aluminium, copper, gold, uranium and zinc. The sector is a major source of export revenue and a key employer in regional areas. Over 166,000 people are employed in the mining industry, roughly 18 per cent of whom are women. These women account for 74 per cent of clerical and administrative workers, and 14 per cent of machinery operators and drivers. Only seven percent of CEOs are women (WGEA, n.d.).

These country cases reflect how, in addition to entrenched historical stereotypes and a pronounced gender pay gap, there are a number of structural barriers to women's leadership in the world of work, many of which apply to women in the LSM industry. A survey conducted by the ILO in 2013 across companies in developing regions ranked what respondents considered the most significant 15 barriers in order of priority (ILO 2015a):

1. Women have more family responsibilities than men
2. Roles assigned by society to men and women
3. Masculine corporate culture
4. Women with insufficient general or line management experience
5. Few role models for women
6. Men not encouraged to take leave for family responsibilities
7. Lack of company equality policy and programmes
8. Stereotypes against women
9. Lack of leadership training for women
10. Lack of flexible work solutions
11. No strategy for retention of skilled women
12. Inherent gender bias in recruitment and promotion
13. Management generally viewed as a man's job
14. Gender equality policies in place but not implemented
15. Inadequate labour and non-discrimination laws

These barriers also featured in an ILO survey in collaboration with Gallup in 2016 (ILO and Gallup 2017). The results, based on interviews with nearly 149,000 adults in 142 countries and territories, confirm that the lack of balance between work and family or home, and a lack of affordable care for children or relatives are the most significant challenges for working women worldwide. It also highlights that unfair treatment at work, abuse, harassment and discrimination, and a lack of safe transport are key issues.

According to a report published by the Minerals Council of Australia and the Australian Government (MCA 2007), the participation of women in the minerals industry is undermined by a number of key structural issues in a society where traditional gender stereotypes prevail. These include the low level of part-time work compared to other sectors; the industry's culture of overwork, long hours and intensity, which further burdens women due to their care duties at home; and the remote nature of the industry.

3.3 Roles of women in artisanal and small-scale mining

Data from the DELVE platform show that about 30 per cent of the people working in ASM are women (DELVE, n.d.). There is, however, significant variation between regions, with women representing up to 10 per cent of the workforce in Asia, 10 to 20 per cent in Latin America and 40 to 100 per cent in some African countries (Hinton, Veiga and Beinhoff 2003).

Women in ASM work in almost all stages of extraction and production, sometimes even owning concessions themselves. According to an IGF report (Weldegiorgis, Lawson and Verbrugge 2018):

Women have primarily been involved in crashing, sluicing, washing, panning, sieving, sorting, mercury–gold amalgamation, amalgam decomposition and, in rare occasions, actual mining. Women are also active in the provision of goods (e.g., food and drink vending, sales of artisanal equipment such as sieves, and credit for mobile phones) and services (e.g., transporting dirt, ores, ore particles and water; cleaning; laundry; sex; nightclub entertainment; and trading). However, the cultural and institutional constraints women face have ensured their involvement in the most value-bearing places such as pits and fair markets is practically non-existent.

In ASM, women often work as part of a family unit that includes children. These units are commonly headed by husbands, which is part of the reason why women’s contribution to the sector remains unrecognized (Lahiri-Dutt 2008). In addition to the work they carry out in the extraction and production of minerals, women and girls also perform the largest share of unpaid care work, which is equally invisible. This shows that there is still a long way to go to reconcile the worlds of “work” and “care” as a means of promoting gender equality.

Women in ASM are also negatively affected by structural barriers, such as their limited access to land rights in some countries and restrictions on mobility due to domestic responsibilities or societal norms. They find it more difficult than men to access licences, financing schemes and even geological data (Carleton University et al. 2017). As a result, they have no or little control over their earnings and are unable to finance and invest in the mining equipment and technology required to run a successful formal business, as opposed to operating unregistered.

According to the independent non-profit organization IMPACT (Côté 2020),

► Women in artisanal mining communities are often:

- confined to the low paying jobs;
- absent from government structures, decision making, and leadership;
- fully responsible for all reproductive and care activities at home;
- using their income to meet basic family needs;
- limited from accessing financing, capital, and income for investing in an artisanal mining business;
- under the pressure of harmful customs, practices, and beliefs.

3.4 Women in mining communities

Both LSM and ASM have a significant impact on local communities. Since women and men have different roles and responsibilities in these communities, they are often affected in different ways. Mining has traditionally increased men's incomes in terms of cash and exacerbated women's economic dependence on men. Furthermore, in some communities, the change to a cash-based economy has increased the share of household income spent on alcohol and sex workers. Sexual and gender-based violence can also become manifest in such situations. Beyond individual acts of violence, it is important to consider the role of international mining companies and States – as well as paramilitaries or security forces in some cases – in carrying out violence directly, or permitting or perpetuating it (GIZ 2020).

In cases where women have been able to obtain paid employment in mining, some of them have experienced increased gender-based violence at home or in the workplace due to shifts in gender roles and power structures (The Advocates for Human Rights 2019). Moreover, any negative environmental impact of mining on clean water, wood, fuel, forest products or agricultural land affects women more than men, as the work to collect water and food in many rural communities is most often carried out by women and girls (IFC 2018a; ILO 2019b).

Despite the fact that women in mining communities face increased risks and vulnerabilities, they are frequently excluded from formal community consultations. This undermines their right to actively participate in discussion and debates about their livelihoods, concerns and aspirations, including opportunities and challenges in relation to decent work.

The situation is particularly acute for women in indigenous and tribal communities in the vicinity of LSM and ASM operations. The ILO Indigenous and Tribal Peoples Convention, 1989 (No. 169), which has been ratified by many mining countries, calls on governments to ensure “that workers belonging to these peoples enjoy equal opportunities and equal treatment in employment for men and women, and protection from sexual harassment”.

It is increasingly recognized that the paid and unpaid work of women is critical to the functioning of mining communities in mining countries all over the world. The work of women as owners of businesses that supply mine sites, and as workers within firms that supply goods and services, is increasingly supported by a growing number of LSM companies that have adopted gender-responsive procurement practices. The International Finance Corporation (IFC) has, for instance, produced a toolkit of actions and strategies on women-owned businesses and the supply chain, and women and community engagement, which provides best practices and tools to help extractive industry companies become more inclusive (IFC 2018b).

Challenges and opportunities for decent work



4.

The ILO defines decent work as “work that is productive and delivers a fair income, security in the workplace and social protection for families, better prospects for personal development and social integration, freedom for people to express their concerns, organize and participate in the decisions that affect their lives and equality of opportunity and treatment for all women and men” (ILO, n.d.-a).

Decent work has become a universal objective and is included in the 2030 Agenda for Sustainable Development. It stands on four inseparable, interrelated and mutually supportive pillars: employment creation, social protection, rights at work and social dialogue, with gender equality and non-discrimination as cross-cutting objectives.

4.1 Employment

The role of governments is critical in generating full, productive and freely chosen employment and decent work for all women and men. Their obligation to do so is set out in several human rights instruments and international labour standards (see Section 4.3). Government policies and actions to create decent jobs vary from country to country and sector to sector, but have proven most effective when employers’ and workers’ organizations are involved in their formulation and implementation, in accordance with the [ILO Employment Policy Convention, 1964 \(No. 122\)](#).

The starting point for policies and actions to generate more and better jobs for women in mining countries is to address the structural barriers faced by women, including by:

- abolishing laws, regulations and cultural practices that are based on gender stereotypes or which perpetuate traditional gender roles, restrict the types of work in which women can engage, limit women’s freedom of movement or aggravate gender-based discrimination, violence and harassment in the workplace (see Section 4.2.3);
- enacting and implementing laws and policies to promote equal opportunity and treatment for women to participate in the economic, social and civil life of society; equal remuneration for work of equal value; and social security and protection of maternity; and which prevent and protect women and men from discrimination, violence and harassment;
- facilitating the transition of workers and economic units in ASM to the formal economy through policies and actions that protect informal workers and promote the formalization of sustainable enterprises, in line with the [ILO Transition from the Informal to the Formal Economy Recommendation, 2015 \(No. 204\)](#).

4.1.1 Large mining enterprises

In the formal mining sector and its value chains, private enterprises are the principal source of economic growth and employment creation. In some countries, however, state-owned enterprises have leading positions. The Chilean state-owned company Codelco, for instance, is one of the largest producers of copper in the world. In 2020, the company or its contractors and subcontractors employed some 50,484 workers (Codelco 2020).

The majority of large mining companies by market capitalization operate in multiple locations and under varying conditions. In 2020, the top 40 mining companies had a total revenue, excluding trading, of approximately US\$545 billion (PwC 2021). The provisions of the MNE Declaration apply to all enterprises, particularly large mining companies, as it encourages all multinational enterprises to:

- endeavour to increase employment opportunities and standards, taking the employment policies and objectives of the governments into account;

- regularly consult the competent authorities and national employers' and workers' organization to keep their staffing plans in harmony with national social development policies;
- give priority to the employment, occupational development, promotion and advancement of nationals of the host country;
- use technologies which generate employment, both directly and indirectly;
- build linkages with local enterprises by sourcing local inputs, promoting the local processing of raw materials and local manufacturing of parts and equipment;
- provide stable employment for workers through active employment planning and observe freely negotiated obligations concerning employment stability and social security.

As mentioned in Section 3.4, many large mining companies are addressing discrimination and seeking to include more women in their operations and supply chains. This is not only driven by the conviction that the inclusion of women and greater diversity is beneficial to business, but also to meet the global standard of expected conduct set out in the 2011 UN *Guiding Principles on Business and Human Rights* (see **box 4**).

► Box 4. The benefits of inclusion and diversity

The benefits of greater inclusion of women and diversity in mining are increasingly recognized. An often-cited example is the high demand for Australian women haul truck drivers in the 2010s, which was fuelled by growing evidence that a gender-inclusive workplace produces a more balanced group dynamic and reduces wear and tear on the equipment.

However, more information and analysis are needed to uncover how women's rights to inclusion and gender equality can benefit the mining industry. On one hand, consulting firms, information providers and financial institutions such as McKinsey, Thomson Reuters and Credit Suisse highlight the positive impact of having more women on boards in terms of improved governance, financial performance, accounting, risk management, stakeholder management and attention to corporate social responsibility. This has also been highlighted in a recent ILO *Women in Business and Management* sectoral brief on mining, which shows that 64 per cent of enterprises believed that gender diversity policies and initiatives had contributed to increased profit and productivity.

On the other hand, two meta-analyses of numerous peer-reviewed studies suggest that the relationship between board gender diversity and company performance is either non-existent or only very weakly positive.

Beyond the business case, equality between women and men, and the elimination of all forms of discrimination against women are fundamental human rights that all businesses, irrespective of size, sector, location, ownership or structure, have a responsibility to respect.

Sources: WIM (UK) and PwC 2013; 2015; University of Pennsylvania 2017; UN 2011; ILO 2020a.

While some mining companies are only just beginning to address these issues, and predominantly focusing on compliance with national laws, and international human rights and labour standards, others have embraced a vision that highlights the importance of diversity and moved on to the implementation of integrated gender equality strategies and initiatives. The companies that have taken the most comprehensive action are embedding gender equality into their corporate culture and incorporating gender initiatives into the business strategies approved at board level. They have also established strong accountability frameworks for their operations and supply chains, and engaged in community-wide efforts to educate and inform others about diversity (WIM (Canada) 2016).

In addition to effectively addressing barriers to women in mining – be they violence and harassment, a lack of childcare facilities, or a lack of appropriate equipment or bathroom facilities, for example – measures that companies can take to advance employment opportunities for women in mining include:

- ▶ anticipating future trends, skills needs and opportunities for women in mining;
- ▶ establishing or enhancing diversity policies with clear targets for inclusion and results reporting;
- ▶ broadening perspectives on educational backgrounds;
- ▶ attaining gender equality in recruitment policies and processes;
- ▶ addressing gender pay gaps;
- ▶ considering voluntary targets or quotas, especially in technical and senior positions;
- ▶ implementing gender inclusive networks, career development and mentoring programmes;
- ▶ establishing systems for work–life balance and flexible working arrangements;
- ▶ revising and updating occupational safety and health systems, and risk assessments;
- ▶ assessing performance evaluations for unconscious bias;
- ▶ providing equality of opportunity for sought-after projects;
- ▶ developing equitable promotion and retention policies;
- ▶ conducting board effectiveness and evaluation reviews.

There are numerous examples of progress at mining sites in some countries, where growing numbers of women have found employment on boards and as managers, engineers, drivers, mechanics, cleaners, caterers and suppliers. Rio Tinto, Anglo American, BHP and other large mining companies have set ambitious targets to increase the share of women in the workforce to 20, 30 or 50 per cent. However, although they are making progress towards those targets (see **box 5**), it is proving harder than expected to achieve overall balance in their workforce (see **box 6**).

► Box 5. Anglo American's investment in inclusion and diversity

At Anglo American, gender balance has been recognized as a challenge for the whole mining industry to tackle. Its senior leadership team has adopted an inclusion and diversity strategy to align and increase action in those areas and ensure they become part of mainstream business delivery.

The strategy has four main pillars: (1) inclusive leadership, involving leadership training as well as toolkits and guidance; (2) a culture of value and respect that focuses on gender, generation, culture and ethnicity, disability, and intersectionality; (3) the development of an adaptable, involving, fair and supportive workplace with colleague networks for support and collaboration; and (4) the introduction of a safe, effective and enabling environment that is not only family friendly, but also has supportive policies against bullying, harassment and domestic violence to help embed behaviours and provide a framework of support for women.

The strategy furthermore promotes apprenticeships for under-represented groups, mentoring programmes to provide internal and external opportunities for women with talent, and a refreshed, inclusive approach to securing and developing diverse talent and male colleague involvement.

The company has set an ambitious target of reaching 33 per cent female representation at senior management level and above by 2023, signalling rapid and significant change. By the end of 2020, the company had increased female representation in senior management to 27 per cent, up from 15 per cent in 2016.

Source: Anglo American, n.d.

► Box 6. Increasing the proportion of women in mining – the case of BHP

In late 2016, BHP set a new target for women to make up half of its workforce by 2025, based on the conviction that the inclusion of more women would improve performance indicators. This target was – and remains – one of the most ambitious gender targets to be set by a global company.

At the time, women made up 17 per cent of staff. In 2019, BHP announced that it was on track to meet its target: its executive team had already reached gender balance, while women represented up to 22 per cent of the workforce. Although this is an impressive achievement, there is still a long way to go to achieve a gender balance across the company.

Source: Wilson 2016; Williams 2019.

LSM companies are responsible for and have a critical role to play in advancing gender equality, not only in their own operations, but also in their supply chains and in nearby mining communities. This involves actively recognizing women's rights to property and resources; including women as stakeholders in land acquisition, resettlement and consultation processes; addressing vulnerability and gender-based violence in the community; and facilitating inclusive access to jobs and economic opportunities. Such actions require an understanding of the gender dynamics in local communities and the parameters for strengthening women's roles, as well as how mining activities can increase the risk of adverse impacts on women, and how these can be adequately addressed (ICMM, n.d.).

4.1.2 Small and medium-sized enterprises

While large multinational mining companies play a critical role in host communities where mining is sometimes the only source of formal jobs and vital services, the share of large-scale, highly automated and capital-intensive mining in national employment is generally low. However, as mentioned in Section 2.3, mining has significant multiplier effects on the local and national economy through the creation of indirect and induced employment and business opportunities for small and medium-sized enterprises (SMEs) in local communities and value chains.

Employment and business opportunities differ throughout the investment cycle. During construction, there are opportunities for a larger number of contractual workers to build mining facilities compared to the operational phase, where the types of operations, the degree of automation, the types of minerals being extracted, the geological characteristics and other criteria determine the demand for labour, products and services. However, most of the opportunities for women and men in mining are created through local procurement, which creates employment spillovers through opportunities for SMEs to service the mines and manufacture inputs. Opportunities are also generated in the local community through satellite economic activities such as transport, hotels, restaurants and shops. The deeper the linkages between large-scale mines and SMEs in the community and at the national level, the greater the impact on indirect and induced jobs (Ramdoo 2020).

Governments play a key role in ensuring that SMEs in the mining sector can continue to generate opportunities for decent and productive jobs for both women and men in the future. This requires a combination of local procurement policies and well-designed, gender-sensitive and inclusive SME policies in alignment with national circumstances and the characteristics of the mining sector in the country. Such policies should increasingly focus on enhancing the capabilities of SMEs to innovate, adopt new technologies, and develop new products and services for the mining industry in order to address social, economic and environmental goals.

Governments are increasingly using local content policies to harness the mining industry's potential for development, creating business opportunities for local businesses and potentially generating more indirect jobs along the supply chain. To encourage more mining companies to use local procurement, governments are increasingly contemplating both demand- and supply-side policies, such as a mandated percentage of local sourcing of goods and services from domestic businesses or technology transfer requirements, as well as incentives like financial support and tax rebates.

The Government of South Africa (2018), for example, has used its mining charter to promote inclusive procurement in the sector. The charter states that a minimum of 70 per cent of total procurement expenditure for mining goods must be on South African manufactured goods. In turn, 5 per cent of that amount must be spent on goods produced by companies owned and controlled by women or youths. Similarly, a minimum of 80 per cent of total expenditure on services must be sourced from companies based in South Africa, 15 per cent of which must be spent on services supplied by companies owned and controlled by women. Furthermore, the charter declares that "A mining right holder must ensure that the terms and conditions offered to women owned and controlled companies, or youth, are not less favourable than those offered to other suppliers."

Concrete action is needed by governments, in collaboration with employers and workers, to foster an enabling environment for more women-led SMEs in both LSM and ASM. As outlined in the ILO resolution and conclusions concerning small and medium-sized enterprises and decent and productive employment creation (2015b), such action includes, but is not limited to, simplifying often complex regulations for SMEs; improving access to finance through measures such as loan guarantees or start-up grants; clustering, networking, linking into technology platforms, and supply chain and local economic development; public investment in infrastructure, education, training and technology; and supporting the formalization of SMEs. The ILO *Strategy on Promoting Women's Entrepreneurship Development* (2008) and the *Women's Entrepreneurship Development Assessment* (2020b) can guide joint action by governments, employers and workers to unleash the potential of women entrepreneurs in mining communities and value chains.

LSM companies can also increase their support for women-led SMEs in mining communities. Indeed, they can leverage their buying power and supply chains to promote gender equality by using gender-responsive procurement to support SMEs owned and led by women. In addition, companies can help promote equal jobs and business opportunities for women by choosing to work with gender-responsive enterprises that foster gender-balanced employment practices, provide better working conditions and decent jobs, and promote equal opportunities in employment across all employment levels, not just at the ownership and leadership levels (ILO and UN Women, forthcoming).

However, the *Responsible Mining Index (RMI) Report* on 38 large mining companies' policies and practices regarding economic, environmental, social and governance issues indicates that "only a small minority of companies take proactive measures to include women in their local procurement support measures, and without such measures, women will most likely be excluded" (RMF 2020). It concludes that "these companies are losing out on valuable opportunities to improve their supplier diversity, contribute to gender equality, and strengthen relations with local communities".

To address this problem, the IFC has launched a toolkit of actions and strategies for oil, gas, and mining companies to increase opportunities for women (see Section 3.4). As an investor in oil, gas and mining projects around the world, it has furthermore included equal opportunity for men and women as one of the requirements of its performance standards (IFC 2012). There is a growing need and demand for this type of targeted support to help women in both the formal and informal mining economy overcome the barriers to developing productive and sustainable businesses and to securing a decent job for themselves and others in the sector.

4.1.3 Cooperatives

Cooperatives⁷ and other social and solidarity economy organizations and enterprises can enhance the economic efficiency and security of women, and be useful vehicles for promoting women's social and economic empowerment, and voice and representation (ILO 2019b; 2019c). They have the potential to help women and men in ASM transition to the formal economy and increase their bargaining power for improved standards of living and working conditions.

This was the case in Nigeria, where the Ministry of Mines and Steel Development, with the support of the World Bank, implemented a gender-sensitive micro-grant scheme to help women miners formalize their activities. The women who formed cooperatives and improved their livelihoods included the Sokoto Women Miners Association, which purchased vehicles to transport gypsum, the Irrigwe Women's Cooperatives, which purchased milling equipment, and the Otuifunaya Women's Multi-Purpose Cooperative Society, which purchased a generator and jaw crusher (World Bank 2020b).

In some countries, such as Rwanda, the Government has actively encouraged small-scale miners to form cooperatives. Initially, the cooperative model was promoted "to enhance indigenous participation in mining", while it was later seen as an instrument to be used "with the aim of improving production, promoting good practices and increasing benefits to the miners" (Nwapi 2017). Furthermore, cooperatives could "raise [small-scaler miners'] capacity to afford technical and financial requirements for productive mining" (Rwanda, Ministry of Natural Resources 2009) and give artisanal miners a greater chance to compete in the market.

In addition to ASM cooperatives, credit unions and other financial cooperatives can provide women miners with loans, health insurance and other financial services, while giving them an opportunity to participate in the decisions taken by the cooperative. In some cases, working women can also benefit from childcare cooperatives, which take care of children for an affordable fee while women are working in the mines. Cooperatives have proven to be a particularly powerful way of advancing gender equality

⁷ ILO's [Promotion of Cooperatives Recommendation, 2002 \(No. 193\)](#), defines a cooperative as "an autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically controlled enterprise".

in the informal economy when combined with efforts to connect women and their support groups with networks of community-based organizations, non-governmental organizations, trade unions or employers' associations (Hinton, Veiga and Beinhoff 2003).

However, it has been found that the participation of women in ASM groupings or cooperatives is limited. This can be attributed to issues such as a lack of trust and the absence of women in leading positions in the sector. Moreover, domestic and childcare responsibilities make it more difficult for women to undertake cooperative commitments (Weldegiorgis, Lawson, and Verbrugge 2018).

4.1.4 Skills development, education and training

Mining production and work is changing rapidly due to digitalization, automation and other technological advances, some of which are already being piloted, such as autonomous haul trucks and loaders; autonomous long-distance haul trains; tele-remote ship-loaders; semi-autonomous crushers, rock breakers and shovel swings; automated drilling and tunnel-boring systems; automated long-wall plough and shearers; autonomous equipment monitoring; and control systems (Cosbey et al. 2016). The world's first fully automated mine was launched in Mali in 2019. Equipped with driverless trucks and robotic drills, the mine operates around the clock and is up to 30 per cent more efficient than conventional mining operations.

These and other technological advances in mining will have a significant impact on GDP, government revenues and employment opportunities. In *Mining a Mirage?* (Cosbey et al. 2016), the authors conclude that "host countries will be increasingly at risk of reduced socioeconomic benefits from mining as existing new technologies are further rolled out. The impacts will be primarily in terms of lost local employment and personal income tax revenue, but will also come from reduced employment-related local procurement".

Digitalization and automation in the mining industry are already accelerating the shift to the remote operation of equipment in LSM. This will have a direct impact on men, as they hold the majority of low-skilled jobs that can be automated in mining operations today. However, employment in mining communities and supply chains can be negatively affected by these changes as well, and many of these indirect or induced jobs are held by women. Furthermore, unless the transition is well managed, the adoption of new technologies can drive an even larger contingent of mineworkers and workers in the mining community into the informal economy, including into ASM (Cosbey et al. 2016).

On the other hand, as mining becomes more automated, traditional arguments for a male-dominated sector that rely on stereotypical notions of "masculine" and "feminine" are becoming even more obsolete. Women are increasingly recognized as an underutilized and highly qualified resource that could help fill the continuously evolving high-skilled mining jobs of the future. As the sector continues to adapt to digitalization and the inevitable changes this brings to mining work, "the workplace culture, and the narratives on what a real mine work and a real mineworker is, are gradually changing, in content and character, to suit the requirements set by the digitalized technology, the new qualification demands and new organizational forms. And also that in these processes, changes of masculinity and the ways how men are doing, and perhaps undoing, gender are very much involved" (Abrahamsson and Johansson 2020).

In this regard, there are significant digital divides between women and men, and between and within countries that will have to be addressed if new opportunities for women in mining are to be realized. According to a study conducted in ten cities by the World Wide Web Foundation (2015), "Women are about 50% less likely to be connected than men in the same age group with similar levels of education and household income." In addition, although higher levels of digital competence were self-reported among women who were younger and more educated, they were still more likely to report a lack of know-how than men of similar age and/or similar educational attainment.

More women and girls than ever before are pursuing science, technology, engineering and mathematics (STEM) education. According to the United Nations Educational, Scientific and Cultural Organization (UNESCO 2017), women represent 35 per cent of all students enrolled in STEM-related fields of study in higher education.

The mining industry is actively positioning itself to attract this talent, in competition with many other industries that also put a premium on high-skilled workers with STEM backgrounds who can master new digital and automation technologies. An increasing demand for minerals and an ageing workforce in many LSM countries has already led to skills shortages, which are likely to continue in the future.

Although this will probably improve the share of women in mining employment over time, concerted efforts will be needed to attract more women and girls to STEM degrees if the mining sector is to achieve a more meaningful balance of women and men across all occupations. Governments, employers and workers will also have to address the “leaky pipeline” problem, namely that “Women leave STEM disciplines in disproportionate numbers during their studies, during transition to the world of work and even during their career cycle” (UNESCO 2017).

In this regard, and as called for in the ILO Centenary Declaration for the Future of Work, 2019, there is a critical need for greater overall investment in lifelong learning, particularly in developing countries, and to link investments in education and training to national and sectoral economic and employment growth strategies and programmes. To make lifelong learning in the mining sector a reality, mining countries will need to undertake major reforms of their vocational education and training systems. School-to-work schemes for young women and men should combine education with workplace learning to a much larger degree than is currently the case. Training systems also need to become more flexible and responsive to rapidly changing skill requirements. In accordance with the [ILO Human Resources Development Recommendation, 2004 \(No. 195\)](#), lifelong learning in the mining sector requires explicit commitment by governments in terms of investing and creating the conditions to enhance education and training at all levels; by enterprises in training their employees; and by individuals in developing their competencies and careers.

Education and training are also key to addressing the challenges faced by women in ASM, facilitating the transition to the formal economy and providing women with equal opportunities (Weldegiorgis, Lawson and Verbrugge 2018). A number of projects have been implemented by international and non-governmental organizations in developing countries with large numbers of ASM workers. These can include modules on safety and environment management, local mining legislation, efficient mining techniques, child labour, gender equality, leadership skills, financial and business management, and mining and financial literacy. Such initiatives offer a way to help ASM workers mine more efficiently and knowledgeably, and are vital to ensure greater inclusion and equality.

4.2 Social protection

The extent to which governments, employers and workers are able to advance decent working conditions and social protection in the mining sector will to a large degree determine whether, when and how women will be able to enjoy the same opportunities as men. Social protection encompasses both labour protection issues – including, but not limited to, working time (Section 4.2.1), wages (Section 4.2.2), gender-based violence and harassment (Section 4.2.3), occupational safety and health (Section 4.2.4), maternity protection (Section 4.2.5) and migrant workers (Section 4.2.6) – and social security (Section 4.2.7).

Since so many women work in ASM in the informal economy, where working conditions are particularly hazardous and harsh, the lack of labour protection and social security is not only a challenge, but a hindrance to their aspirations for decent work, rights and dignity. This further highlights the need for urgent action to enable the transition of workers and economic units in ASM from the informal to the formal economy, while ensuring the protection of work, and the preservation and improvement of existing livelihoods during the transition (ILO 2015c).

4.2.1 Working time

Long working hours have been an issue in the mining sector for centuries, and this is inextricably linked to the introduction of 24-hour operations and 12-hour shifts. “[M]ines, quarries, and other works for the extraction of minerals from the earth” were included in the ILO’s very first Convention, the [Hours of Work \(Industry\) Convention, 1919 \(No. 1\)](#), which set the basic principle of the 8-hour day and 48-hour week. Long working hours and the right to weekly rest was the sole subject of the ILO Hours of Work (Coal Mines) Convention, 1931 (No. 31), which was revised in 1935 with the adoption of Convention No. 45 (see Section 3.1), and later abrogated and withdrawn at the 88th Session of the International Labour Conference in May 2000.

In a report on the evolution of employment, working time and training in the mining industry, the ILO (2002) notes that “[t]here are good reasons for the mining industry to be concerned about working time”. On the one hand, “there are considerable commercial, financial and industrial relations benefits to be realized from the development and successful implementation of effective working-time arrangements”. These include a greater ability to attract and retain workers with family responsibilities. On the other hand, inappropriate schedules, excessive working hours, overtime and lack of training cause fatigue and human error. The economic and social consequences are severe and include reduced productivity, higher accident and occupational disease rates, absenteeism, resignations and increased workers’ compensation. One of the most critical barriers to women’s participation and advancement in LSM is the lack of flexibility in operational roles and the challenges associated with spending large amounts of time away from home, especially when this involves fly-in, fly-out arrangements. Such arrangements effectively marginalize many women who, in most mining countries, traditionally bear the brunt of unpaid work responsibilities outside the workplace.

The elements of working time – including how many hours are worked each shift; how many shifts are worked at a time; how many hours are worked in a given period and how much time off is allowed; and how much overtime is worked – combine in an almost infinite array of options, rosters or rotas, which makes it difficult to generalize. In some countries, working time is governed by legislation, while elsewhere it has become a matter for negotiation, often at the site level, between employers and workers under the umbrella of a duty of care established by the regulatory authority. Working time and shift arrangements thus vary considerably from country to country, and even from mine to mine, and are the subject of intense negotiations between employers and their associations, and workers and their organizations.

In this regard, some mining companies are taking concrete measures to invest in working conditions that support women by enhancing flexible working arrangements. The confinement measures to prevent and control the COVID-19 pandemic have shown how effective flexible teleworking arrangements can be for some categories of workers, and it is highly likely that mining companies will continue to invest in such solutions in the future.

Reliable data regarding working hours for women and men in informal ASM are limited or non-existent. However, there are reports from non-governmental organizations that document how family units work long hours, either full time or part time to supplement other income-generating activities, and sometimes migrate to remote ASM sites for weeks or months at a time.

4.2.2 Wages

Average wages in formal LSM generally exceed their national cross-industry averages. A study of mining wages in the United States (Itkin, n.d.) found that:

With the exception of the lowest-paid workers in the mining industry, most occupations are paid higher wages than their counterparts in other industries. The highest-paid workers, such as lawyers, managers, and engineers, are paid higher wages than people in the same occupations in other industries. Mining labourers are paid higher wages than workers in similar occupations in the same geographic area.

Wage gaps between women and men in mining have been an issue for centuries. The women who worked in mines in Victorian Britain, for instance, were paid roughly half what men were paid (Frost 2017). In the absence of comparable and reliable data, the full extent of the gender pay gap in mining today is not known. However, the limitations imposed on women's access to the industry through prohibitive legislation or inadequate labour policies, as well as discriminatory property and inheritance laws, have a dramatic effect on their participation and perpetuate the cycle of discrimination and pay gaps in the sector (Perks and Schulz 2020).

In Australia, an important mining country, the base salary for a full-time female worker in the mining industry was 10.4 per cent lower than her male counterparts in 2020. For management personnel, the gender pay gap was 8.2 per cent compared to a 10.3 per cent gap for machinery operators and drivers (WGEA, n.d.) (see **box 7**).

► Box 7. Gender pay gaps in Australia's mining sector

In Australia, the national gender pay gap was 13.4 per cent in February 2021. For the past two decades, it has fluctuated between 13.4 per cent and 19 per cent. As explained by the WGEA, "The differences in the gender pay gap can be partly explained by industry profiles of each state and territory." In regions with a higher concentration of male-dominated sectors, such as mining and construction in Western Australia, the gender pay gap is frequently higher than the national average.

Source: WGEA 2021.

► Box 8. Corporate experiences

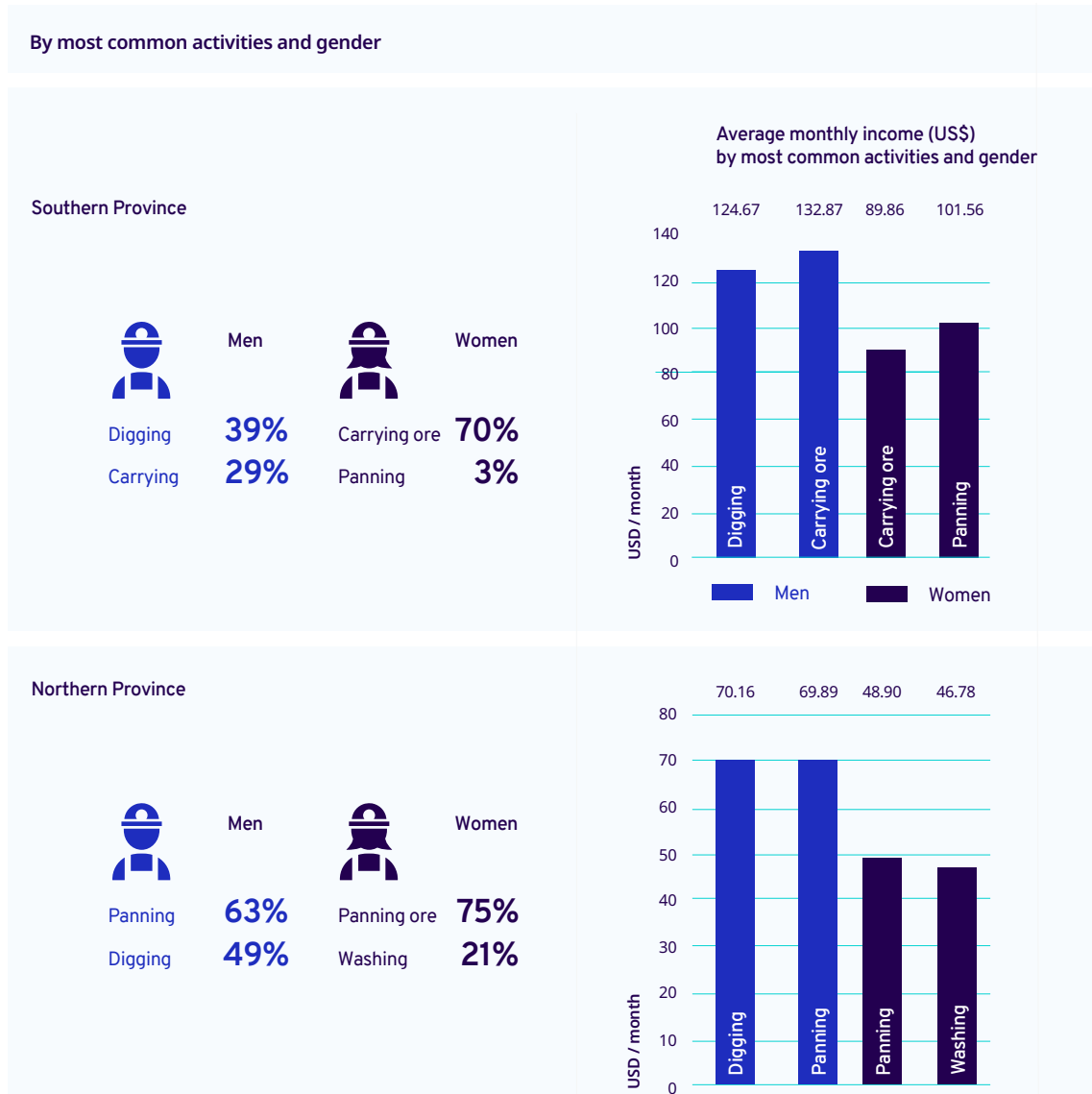
Anglo American's head office corporate services are concentrated at its headquarters in London. According to its gender pay gap report, in April 2020, women made up 54 per cent of its workforce in the UK. However, the fact that 73 per cent of the senior management roles in the UK head office were occupied by men means there was an hourly pay gap of 47 per cent.

On a global basis, Anglo American's gender pay gap of 18 per cent reflects a greater gender balance across its business activities.

Source: Anglo American 2020.

Gender pay gaps are common in ASM as well: in Rwanda, women earn 25–30 per cent less than men for the same activities, be they carrying ore or panning (WIAMO et al. 2017) (see **figure 5**). This pay gap is mostly related to women’s limited access to big buyers and markets, as well as to their reliance on “middlemen” to make up for their lack of bargaining power due to cultural norms and attitudes.

► **Figure 5. Women in ASM in Rwanda**



Source: WIAMO et al. 2017.

4.2.3 Gender-based violence and harassment

One of the biggest challenges faced by women who work in mines is gender-based violence and harassment (see **box 9** and **10**), both above and below ground.

► Box 9. Forms of gender-based violence

Gender-based violence can take many forms. As Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) points out in a report, “pre-existing norms and inequalities, combined with the changes that may be brought by mining activity, do appear to give rise to a situation where violence ... appears to be a prevalent issue”.

Different forms are more or less prevalent in situations of LSM and ASM, and include intimate partner violence and domestic violence, as well as sexual harassment, sexual exploitation, and sexual and verbal abuse.

Sexual harassment is defined as “a human rights violation of gender-based discrimination, regardless of sex, in a context of unequal power relations such as a workplace and/or gender hierarchy. It can take the form of various acts including rape, other aggressive touching, forced viewing of pornography, taking and circulation of sexual photographs, as well as verbal sexual conduct.”

Sexual exploitation is “any actual or attempted abuse of position of vulnerability, differential power, or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another”.

Sexual abuse is an “actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions”.

Source: GIZ 2020; UN Women 2018; UN 2017.

In Canada, a 2017 survey of 540 employees working in management positions within mining showed that 47 per cent of them had experienced harassment (Peltier-Huntley 2019). In the case of ASM, another report found that 74 per cent of women in eastern Democratic Republic of the Congo have been subjected to sexual violence (GIZ 2020). In its social audit baseline report on South Africa, ActionAid (2018) found that 40 per cent of the women interviewed indicated that jobs in the mining sector were only available through sexual favours.

The reasons for this situation can be traced to the hypermasculinity of the mining culture and how it allows these practices to be accepted, and even strengthened, due to male solidarity as well as organizational tolerance (Benya 2017a).

► **Box 10. A new ILO instrument to address violence and harassment in the world of work**

When the International Labour Conference adopted, in 2019, the first-ever standard on the elimination of violence and harassment in the world of work: the [Violence and Harassment Convention, 2019 \(No. 190\)](#), and the [Violence and Harassment Recommendation, 2019 \(No. 206\)](#), it defined the term “violence and harassment” in the world of work as a range of unacceptable behaviours and practices that could result in “physical, psychological, sexual or economic harm”, specifying that it included gender-based violence and harassment.

Recognizing that violence and harassment can affect all workers, but that women are disproportionately more at risk, independently of their hierarchical position or work location, the Convention guarantees the right of everyone to a world of work free from violence and harassment.

Following ratification by the first two countries, Uruguay and Fiji, the Convention entered into force on 25 June 2021.

The remoteness and relative isolation of mining sites make women more vulnerable to such violence. Women working in mines consistently report unwelcome physical, verbal and non-verbal behaviour that affects their chances of success and advancement in the workplace (Botha 2016). The lack of consistent laws, law enforcement and community support in these locations means that women have less access to protective services, legal representation and law enforcement personnel (United States, Department of State 2017). Even where legislation, such as equal opportunity strategies, is in place, it needs to be accompanied by more robust instruments of control and legal consequences to protect women working in close quarters with a male-dominated workforce.

In an assessment of 38 large mining company policies and practices on economic, environmental, social and governance issues, the *RMI Report* (RMF 2020) reveals a large gap in how companies protect women from gender-based violence and harassment, stating that “none of the assessed companies is able to show systematic action on this issue”. Even though some LSM companies have reporting mechanisms to deal with harassment in the workplace, these reporting lines can be inefficient, and ultimately punish women by moving them to different teams or removing them from underground mines, thus reinforcing the idea that a mine is no place for women. Moreover, staff who deal with these issues are often male and less sensitive to the repercussions (Benya 2017a).

It should be added that fewer than 40 per cent of women who experience violence seek help, with most of those seeking support from family and friends. Few look to formal institutions, such as police or health services (UN Women, n.d.-b).

In the case of ASM, The Advocates for Human Rights (2019) report that:

[T]he 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.

The risk of violence and harassment against women in mining communities evolves during the course of the investment cycle. The rapid modernization and monetization of the economy and the injection of a large, mostly male, workforce in the construction phase, as well as the presence of armed security forces, can potentially destabilize social relations, exacerbate existing gender inequalities and increase incidents of crime, alcoholism, domestic violence, prostitution, trafficking and sexual exploitation, and sexually-transmitted diseases in local communities (UNDP et al. 2016).

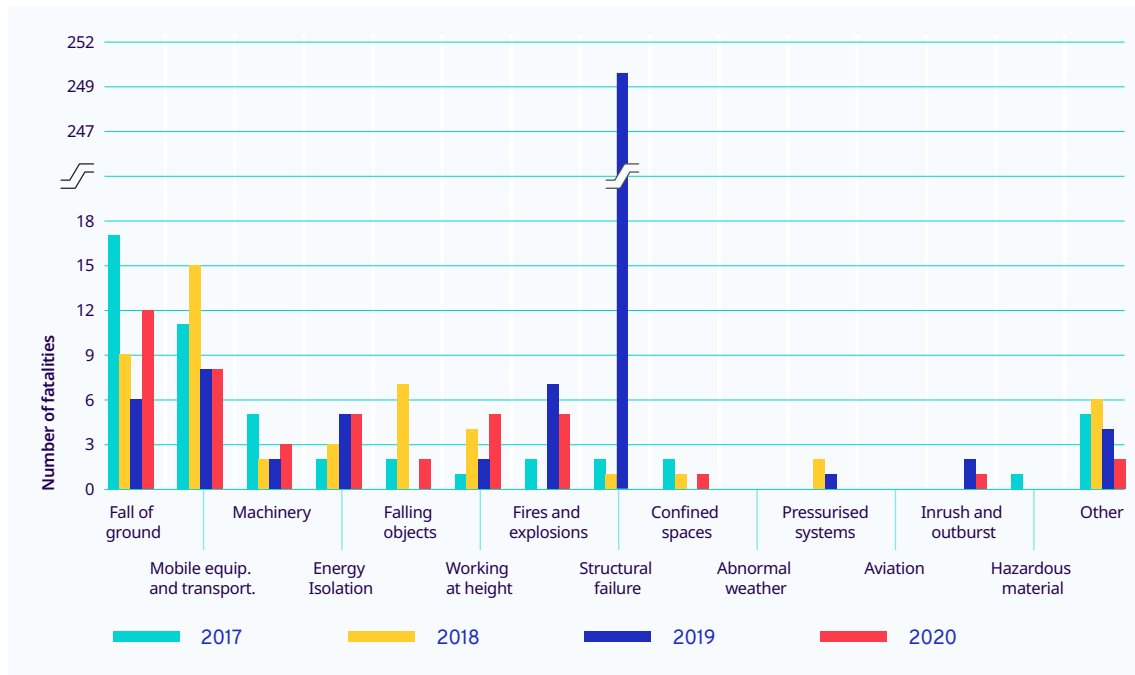
Women who find employment in mining operations, or who supply services or products to the mine in the operational phase, may encounter resistance and jealousy from spouses and men, who find it difficult to accept women becoming independent, or becoming the breadwinner or the higher earner (Kotsadam, Østby and Rustad 2017). Finally, there are reports of domestic violence and abuse in the wake of mine closures. As noted by the World Bank (2018), “When men lose their employment, intra-household tensions and possibly gender-based violence may increase. Gender relations, family, and community life may be disrupted through out-migration.” This underscores the importance of incorporating a gender lens and adopting targeted measures to eliminate gender-based violence and harassment throughout the mining life cycle.

4.2.4 Occupational safety and health

The nature of the work in the mining sector exposes workers to increased risks of accidents and diseases such as explosions, getting trapped underground or lung diseases induced by mineral dust exposure, as well as to psychosocial risks that can lead to alcohol or drug abuse, or violence or harassment. Extended working hours result in fatigue and they are highly correlated with increased risks of accidents, injuries or health problems, as well as violence and harassment. The remote locations of mining activities may also compromise access to health and emergency facilities. Finally, the prevalence of HIV/AIDS in mining communities, notably in Southern Africa, is a serious occupational health issue since infection rates tend to be higher among mineworkers than within the general population.

LSM companies have occupational safety and health management systems in place and regularly monitor and report on the associated indicators. The ICMM (2021), which aggregates safety and health data from 27 of the largest mining companies in the world, reported that 44 fatalities occurred across their members’ operations in 2020, a significant decrease from the 287 fatalities in 2019 due to the collapse of the Brumadinho dam. The main causes of fatalities in 2020 were “fall of ground” incidents, mobile equipment and transport, and fires and explosions (see **figure 6**). The overall injury rate decreased from 3.20 in 2019 to 2.94 in 2020.

► Figure 6. Associated hazards attributed to fatalities in 2017–2020



Note: The high number of fatalities associated with structural failure in 2019 was caused by the Brumadinho dam collapse. Source: ICMM 2021.

While the safety and health performance of these LSM companies has improved over time, they could do more to mainstream gender into their occupational safety and health management systems. Only 7 out of the 38 companies in the *RMI Report* (RMF 2018) provide gender-appropriate personal protective equipment, such as goggles, helmets or other equipment, or secure toilet and changing room facilities for women.

In the case of ASM, the lack of mechanization, rudimentary techniques, low awareness and lack of inspection are among the most common reasons for poor health and safety practices. This also means that occupational diseases, injuries and fatalities are not usually recorded. The use of hazardous substances puts the health of miners and their communities at risk. Dust and fine particles from blasting and drilling processes can cause respiratory diseases such as silicosis or pneumoconiosis in men and women, and in the children who often accompany their parents. In addition to the zinc vapour, cyanide or other acids it releases, Artisanal and small-scale gold mining is the largest source of mercury emissions, estimated at 1,400 tonnes per year in 2011 (Telmer and Stapper 2012). As noted in a report on global trends in ASM (Fritz et al. 2017), “Exposure to mercury can have serious health impacts, including irreversible brain damage.” Due to the division of tasks between male and female ASM miners in sub-Saharan Africa, most of these risks are borne by women.

Given the physical demands of ASM mining on women and the hazardous conditions in which they operate, it is common to find women afflicted with chronic injuries, fatigue, silicosis, and exposure to mercury and other toxic substances (Hinton, Veiga and Beinhoff 2003). And for those still in their reproductive years, it is not uncommon to find high levels of stillbirths, deformities and miscarriages due to excessive exposure to radioactive substances (Lahiri-Dutt and Macintyre 2006).

The poor environmental, health and safety practices of ASM not only affect workers’ health directly, but also degrade crops and farmlands, and pollute nearby rivers, thus affecting local communities’ access to food and clean water. The resulting environmental degradation is acutely felt by women, especially those in remote areas, as they find themselves under even more pressure to guarantee food security for their families, and need more time to collect water and firewood across ever increasing distances.

The broad spectrum of negative health and safety impacts of ASM are more acutely felt by women, as they are also the primary caretakers of family members (Jenkins 2014). The way in which the COVID-19 pandemic exacerbated gender inequalities in mining laid bare how the responsibility primarily falls on women to care for those who fall ill (see **box 11**). The constant balancing act of work and care is exacerbated by the lack of access to care services and infrastructure, and may in turn have negative effects on women's health in terms of anxiety and sleep deprivation (ILO 2019d). According to the World Economic Forum (2021), on the current performance trajectory, "it will now take 135.6 years to close the gender gap worldwide".

► **Box 11. COVID-19 and gender inequality in ASM**

Gender inequalities were exacerbated during the COVID-19 pandemic. Women working in ASM saw their livelihood options limited and access to support services reduced, and had a greater burden of unpaid work.

The impossibility of reaching mine sites or their closure has left women with fewer possibilities of providing for their families. Agriculture is frequently the alternative economic activity for mineworkers, but the long distances from marketplaces and the lack of transport make it impossible to turn a profit.

As most women in ASM work in an informal setting, they are not protected by health insurance or other social security schemes. The majority of ASM operations take place in fragile communities with weak healthcare systems, leaving women even more vulnerable in extreme situations such as the pandemic.

Women are more likely to have the primary responsibility for childcare and housework, as well as taking care of sick and elderly family members. During the pandemic, the weight of this responsibility was more severe, with children out of school and family members falling ill.

Finally, it is likely that women in ASM, like women in other sectors, have been subjected to an increase in domestic violence. Statistics show that, since the outbreak of COVID-19, all types of violence against women and girls, particularly domestic violence, have intensified.

Source: Belo-Enricoso and Catedral 2020; UN Women 2020.

The role of governments, employers and workers in advancing safety and health in all mining operations is clearly established by the ILO Safety and Health in Mines Convention, 1995 (No. 176), (see **box 12**). There are also well-known approaches and measures for eliminating and reducing risks to safety, health and well-being, which are detailed in the ILO codes of practice [Safety and Health in Underground Coalmines and Safety and Health in Opencast Mines](#). Furthermore, [Safety & Health in Small-Scale Surface Mines: A Handbook](#) was produced as a practical tool to support policymakers, mine inspectors, mine owners and mineworkers in dealing with the diseases and accidents that affect small-scale miners. To protect the safety, health and well-being of all men and women in mining, it is incumbent on all governments, employers and workers in the sector to take urgent action to implement these instruments and tools in law and practice, in both large- and small-scale mining.

► **Box 12. The ILO Safety and Health in Mines Convention, 1995 (No. 176)**

Given the hazardous nature of mining, the tripartite constituents of the ILO have adopted the [Safety and Health in Mines Convention, 1995 \(No. 176\)](#). This Convention applies to all forms of mining, including surface and underground sites, as well as to machines and structures used for the exploration, extraction and preparation of minerals. It sets out the responsibilities of employers and the rights and duties of workers, and requires ratifying Member States to prescribe measures in national laws and regulations to ensure its application, supplemented by technical standards, guidelines or codes of practice where appropriate. The Convention provides for the designation of a competent authority to monitor and regulate safety and health in mines, as well as to compile and publish statistics on accidents, occupational diseases and dangerous occurrences.

Convention No. 176 is accompanied by the [Safety and Health in Mines Recommendation, 1995 \(No. 183\)](#), which provides practical guidance for the implementation of the Convention. It states that measures should be taken to encourage and promote specific assistance by the competent authority to small mines in order to assist in the transfer of technical know-how, establish preventive safety and health programmes, and encourage cooperation and consultation between employers and workers and their representatives.

Recommendation No. 183 contains two paragraphs with specific relevance to women in mining:

- Paragraph 21(c) states that “where reproductive health hazards and risks have been identified, training and special technical and organizational measures should be taken, including the right to alternative work, where appropriate, without any loss of salary, especially during health risk periods such as pregnancy and breast-feeding”.
- Paragraph 25(a) states that the toilets, showers, washbasins and changing facilities provided and maintained by employers should be, where appropriate, gender-specific.

4.2.5 Maternity protection

Maternity protection is essential to protect the health and safety of mother and child, and to promote gender equality and women’s enhanced participation in the labour force, thereby helping expand the pool of talent available to the economy. Together with paternity or parental leave, maternity protection is part of a broader set of work–family reconciliation measures for both men and women workers, ranging from public policies and collective bargaining, to workplace initiatives. [The Workers with Family Responsibilities Convention, 1981 \(No. 156\)](#), provides relevant guidance to this effect (ILO 2015d).

Unpaid care work coupled with a lack of childcare facilities is, in many countries, forcing women to leave the mining sector or to move to roles more compatible with caring for children, parents or other family members. Across the world, some 606 million women of working age perform unpaid care work on a full-time basis, compared to 41 million men (ILO 2019d). In the absence of accessible and available childcare, women in the mining sector typically assume the burden of finding a solution themselves. In the United States, for example, women in mines have traded childcare duties with women on the opposite schedule, while in Papua New Guinea, mothers in mines without on-site day-care have paid young female family members to watch their infants (The Advocates for Human Rights 2019).

4.2.6 Migrant workers

Mining has historically attracted large numbers of low-skilled workers looking for better opportunities to make a living, especially in the ASM sector and during the construction phase of LSM, and this continues today. In the mining sector, women are more likely to migrate with their husbands and provide services to male mineworkers or the local community than to work in a foreign mining industry themselves. While there is a lack of information concerning the number and working conditions of low-skilled migrant workers in mining, women migrant workers are generally at higher risk of labour exploitation and discrimination in employment, and they often face restricted access to healthcare and other services, obstacles to accessing justice, and limitations on their ability to collectively organize.

Several case studies highlight how migration into ASM takes place outside state control and without regard to environmental protection, national or international labour standards, or human rights, notably the rights of children and women. Migrant workers in ASM are generally more vulnerable to the risks of exploitation, as there is a lack of inspection and enforcement of labour laws and regulation. Working and living conditions are poor, migrant workers often face unequal treatment, and there are reports of increased conflict associated with migration. Migrant women face even more intense discrimination and precariousness in terms of personal safety, security and livelihoods (Coderre-Proulx, Campbell and Mandé 2016).

4.2.7 Social security

Social protection⁸ policies aim to address life risks, including those associated with work, such as employment injury, sickness, maternity, unemployment, disability and old age. In so doing, social protection is an important tool in reducing poverty and inequality, as highlighted in targets 1.3⁹ and 3.8¹⁰ of the SDGs. This is of particular relevance given the variety of hazards associated with mining operations in general, as well as the increased risk of poverty and inequality faced by women workers.

Where they are designed, implemented and monitored in a gender-responsive way, social protection systems can contribute to women's economic empowerment and greater gender equality, especially when linked to other gender equality promotional measures, such as equal pay for work of equal value and the promotion of decent and productive employment and income opportunities equally for women and men. In addition, along with the provision of public care services and infrastructure, social security systems can play a major role in facilitating the redistribution of care responsibilities, and recognizing and valuing unpaid work (ILO 2017b). Childcare leave benefits, and maternity, paternity and parental benefits are particularly essential to break the cycle of gender inequalities that trap women in informal, low-paid jobs without any social protection for themselves, both while they are working and in old age (Alfers 2016; ILO and WIEGO 2020).

The ILO estimates that some 4 billion people, about 55 per cent of the global population, have no social protection and that only 45 per cent of the global population are effectively covered by at least one social protection benefit (ILO 2017b). Many of those not covered, or inadequately covered, are workers in the informal economy, including women. While further research would be necessary to capture the extent of social protection coverage in the mining sector, and of women in particular, given the level of

⁸ In this report, the term social protection, or social security, is used with reference to the human right and defined as the set of policies and programmes designed to reduce and prevent poverty, vulnerability and social exclusion throughout the life cycle. Social protection is mainly provided in relation to nine areas: child and family benefits, maternity protection, unemployment support, employment injury benefits, sickness benefits, health protection (medical care), old-age benefits, invalidity/disability benefits, and survivors' benefits. Social protection systems address all these policy areas through a mix of contributory schemes (social insurance) and non-contributory, tax-financed benefits (including social assistance) (ILO 2017b).

⁹ *SDG target 1.3* is to "Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable."

¹⁰ *SDG target 3.8* is to "Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all."

informality and undeclared work, particularly in ASM, challenges in accessing adequate social protection coverage are to be expected. The lack of social protection of workers in the mining sector can pose specific challenges, especially in a sector with high risks of employment injury and strenuous working conditions. Other challenges relate to migrant labour, as high labour mobility may be an impediment to social protection coverage and access to social protection entitlements due to administrative and legal barriers. Such gaps will also exacerbate the existing vulnerabilities experienced by women.

Some countries have made impressive progress in extending social protection coverage for workers and the wider population, guided by ILO social security standards, notably the [Social Security \(Minimum Standards\) Convention, 1952 \(No. 102\)](#), and the [Social Protection Floors Recommendation, 2012 \(No. 202\)](#). There is no one-size-fits-all solution; rather, the extension of social security, including to women workers in the mining sector, will need to take into account the different employment arrangements described above and country contexts (ILO, n.d.-c). Addressing administrative barriers by adapting procedures and facilitating access, as well as improving access to information and raising awareness, could help enhance compliance with social security law, in particular for SMEs and those engaged in artisanal mining (ILO 2021a; 2021b; 2021c).

Acknowledging that the majority of women in the mining sector currently work in ASM, the extension of social protection to workers in the informal ASM economy is of particular importance. This will require a comprehensive approach to address the various barriers to social protection coverage for women in ASM, provide coverage solutions adapted to their needs, and – above all – facilitate their transition to the formal economy.

In sum, governments should prioritize the establishment of robust, comprehensive and sustainable national social protection systems that are inclusive of workers in all types of employment, and which consider the necessary adaptation of existing mechanisms to the needs and circumstances of groups of workers with more unstable forms of employment, and who face particular challenges, such as women. Where the entire range of statutory social security benefits is not applicable to such workers, notably for women in ASM, efforts should be made to progressively extend coverage through appropriate mechanisms. In addition, countries should accelerate their efforts to build nationally defined social protection floors to guarantee at least a basic level of social security for all, comprising access to essential healthcare and basic income security throughout the life cycle, as established by Recommendation No. 202.

4.3 Fundamental principles and rights at work, and international labour standards

The [ILO Declaration on Fundamental Principles and Rights at Work](#) was adopted in 1998 and commits Member States to respecting and promoting the principles and rights at work, even if they have not ratified the relevant Conventions. They therefore have a duty to adopt, implement and enforce national laws and regulations, and to ensure that the fundamental principles and rights at work and ratified international labour Conventions protect and are applied to all workers, taking into account other international labour standards.

There are four categories of principles and rights at work: freedom of association and the right to collective bargaining, the elimination of forced or compulsory labour, the abolition of child labour and the elimination of discrimination in respect of employment and occupation. These principles and rights have been expressed and developed in eight ILO Conventions that are recognized as fundamental:

► **Table 1. Fundamental ILO Conventions**

No.	Convention
29	Forced Labour Convention, 1930, and the Protocol of 2014
87	Freedom of Association and Protection of the Right to Organise Convention, 1948
98	Right to Organise and Collective Bargaining Convention, 1949
100	Equal Remuneration Convention, 1951
105	Abolition of Forced Labour Convention, 1957
111	Discrimination (Employment and Occupation) Convention, 1958
138	Minimum Age Convention, 1973
182	Worst Forms of Child Labour Convention, 1999

4.3.1 Freedom of association and collective bargaining

Freedom of association ensures that workers and employers in the mining industry can organize to efficiently negotiate work relations. Governments have a key role in creating a stable political and civil climate, as well as the legal and institutional frameworks that enable autonomous employers' and workers' organizations to operate freely, without fear of reprisal.

Combined with effective freedom of association practices, sound collective bargaining practices ensure that employers and workers have a voice in negotiations and that the outcome will be fair and equitable. Collective bargaining allows both sides to negotiate a fair employment relationship for all workers and prevents costly labour disputes.

Collective bargaining has been used for many years to negotiate and agree wages, working time, and other wage and non-wage issues in the mining sector. In South Africa, for instance, the origins of collective bargaining in the mining industry go back as far as 1915.

In general, freedom of association and collective bargaining are enabling rights that are important to the attainment of all ILO strategic objectives. These enabling rights have allowed strong and independent workers' and employers' organizations to contribute to the growth and development of the mining industry (see Section 4.8 on social dialogue below).

4.3.2 Forced labour

The remoteness and poverty-stricken environs of mines combined with large flows of illegal migrants create a fertile ground for traffickers to exploit women through forced labour, sexual exploitation and forced marriage. The [Forced Labour Convention, 1930 \(No. 29\)](#), establishes that forced or compulsory labour means "all work or service which is exacted from any person under the menace of any penalty and for which the said person has not offered himself voluntarily".

In the extractive sector, while many men find themselves in a situation of debt bondage, women and girls are commonly offered false jobs as cooks or waitresses, only to find themselves in situations of grave exploitation, with their documents confiscated. The International Organization for Migration (IOM 2018) has found that the absence of basic infrastructure around mines can foster demand for alcohol and sexual services, leading to women and girls from impoverished regions being targeted for sex trafficking.

4.3.3 Child labour

Child labour in the mining sector has been the subject of many studies. It is estimated that one million children work in mines, and that this number is increasing (ILO 2005). Most children can be found working in artisanal or small-scale mines in remote areas, making regulation or assistance difficult. It is widely recognized that mine work is hazardous for children, as they are engaged in dangerous activities such as diving into rivers and flooded tunnels, moving stone and coal on their backs or in wheelbarrows, breaking stones, and even mixing mercury to amalgamate and recover gold.

With funding from the United States and the Netherlands, the ILO runs two large development cooperation programmes to combat child labour in cobalt mining in the Democratic Republic of the Congo and eliminate child labour in gold mining in Côte d'Ivoire, Mali and Nigeria. The aim is to improve and enforce policy, legal and institutional frameworks to address child labour in global ASM supply chains.

4.3.4 Elimination of discrimination in respect of employment and occupation

Discrimination stifles opportunities, wastes human talent and accentuates social tensions and inequalities. Measures to prevent and eliminate all forms of discrimination are therefore critical to investing in people's capabilities and advancing decent and sustainable work in the mining industry. While this report focuses on gender-based discrimination, governments, employers and workers in the mining sector have an obligation to address all forms of discrimination.

Together with the [UN Convention on the Elimination of All Forms of Discrimination against Women](#) and the [International Covenant on Economic, Social and Cultural Rights](#), the ILO [Equal Remuneration Convention, 1951 \(No. 100\)](#), and the ILO [Discrimination \(Employment and Occupation\) Convention, 1958 \(No. 111\)](#), affirm a woman's right to work, and establish a comprehensive set of government obligations to ensure that women can enjoy that right in law and practice. Convention No. 111 calls on governments to abolish laws, regulations, and cultural practices that restrict the types of work in which women can engage, that limit women's freedom of movement, or that permit gender-based work-related discrimination, violence or harassment. In other words, governments are obliged to ensure that women can exercise their right to work on a basis equal to that of men.

In this regard, Convention No. 111 recognizes that achieving gender equality in the world of work will be difficult, if not impossible, unless gender-based discrimination prior to entry into the labour market is addressed. Distinctions based on civil or marital status and family situation are contrary to the Convention where they affect women's ability to seek paid work outside the home; access, own and control property, resources and assets; or enter into agreements. Addressing these and other societal barriers is a necessary precondition to providing equal opportunities for women and men in the labour market in general, and in mining in particular.

Women furthermore have the right to equal pay for work of equal value without distinction, and the guarantee that conditions of work for women must not be inferior to those enjoyed by men. This includes not just the right to safe and healthy working conditions, but also equal opportunity and treatment, to be promoted based on competence and seniority, and to obtain the education, training, and mentoring necessary to achieve employment and promotion.

In addition to the two fundamental ILO equality Conventions, and as mentioned in Section 3.4, the [Indigenous and Tribal Peoples Convention, 1989 \(No. 169\)](#), stipulates that "workers belonging to these peoples [shall] enjoy equal opportunities and equal treatment in employment for men and women, and protection from sexual harassment". These provisions are particularly important for governments to regulate mining on lands occupied by indigenous and tribal peoples, and for the companies that operate there and employ women and men from local communities.

The [Workers with Family Responsibilities Convention, 1981 \(No. 156\)](#), encourages governments to promulgate national policies that enable people with family responsibilities to exercise their right to work without conflict between their employment and family responsibilities. The [Maternity Protection Convention, 2000 \(No. 183\)](#), and the accompanying [Recommendation No. 191](#) further promote equal opportunities for women in employment and occupation by recognizing that maternity protection is a precondition for gender equality and non-discrimination. These standards increase the minimum leave period set out in the previous Conventions. This right is part of a full set of measures that also include entitlement to maternal and child healthcare; prevention of exposure to workplace health and safety hazards for pregnant and nursing workers; protection against discrimination in employment and occupation; a guaranteed right to return to the job after maternity leave; and breastfeeding breaks.

An increasing number of governments have ratified the Equal Remuneration Convention, 1951 (No. 100), and the Discrimination (Employment and Occupation) Convention, 1958 (No. 111), and enacted legislation to comply with them, including many major mining countries (see [table 2](#)). While these are positive steps that will help advance gender equality and improve the situation of women in mining, the implementation of these instruments remain a considerable challenge, particularly in ASM.

► **Table 2. Ratification of core ILO gender equality Conventions by top ten mineral-producing countries (total minerals production in 2021)**

COUNTRY	Equal Remuneration Convention (No. 100)	Discrimination (Employment and Occupation) Convention (No. 111)
China	02 Nov. 1990	12 Jan. 2006
United States	Not ratified	Not ratified
Russian Federation	30 Apr. 1956	04 May. 1961
Australia	10 Dec. 1974	15 Jun. 1973
India	25 Sep. 1958	03 Jun. 1960
Indonesia	11 Aug. 1958	07 Jun. 1999
Saudi Arabia	15 Jun. 1978	15 Jun. 1978
Canada	16 Nov. 1972	26 Nov. 1964
Brazil	25 Apr. 1957	26 Nov. 1965
Iran (Islamic Republic of)	10 Jun. 1972	30 Jun. 1964

Note: Total minerals production includes production of iron and ferro-alloy metals, non-ferrous metals, precious metals, industrial minerals and mineral-fuels.

Source: Austria, Federal Ministry of Agriculture, Regions and Tourism 2021.

With the recent decision to recommend the abrogation of the first, and now outdated, ILO Convention – the Underground Work (Women) Convention, 1935 (No. 45) – Member States can, as a first and tangible step to advance gender equality, repeal and revise any laws, policies and regulation that discriminate against women in mining. As mentioned above, governments should furthermore enact laws and policies that embody the principle of equality of men and women, and support women in the economic, social and civil life of society.

Governments also play a critical role in supporting the effective implementation of international labour standards and national labour laws through their labour inspectorates. Labour inspectors support the creation of better working conditions for women and men by verifying how national labour standards are applied in the workplace, and can advise employers and workers in the mining sector how to make improvements in areas such as working time, wages, occupational safety and health, and child labour. A key challenge for labour inspection in the mining industry is how to extend inspection to ASM and coordinate what are, in some countries, the separate functions of labour, mine and social security inspection under the ministries of labour and mining respectively, especially in remote mining jurisdictions where the capacity of inspectorates is weak.

4.4 Social Dialogue

Sound employment relations and effective social dialogue contribute to good governance in the workplace, decent work, inclusive economic growth and democracy for women and men. Social dialogue remains vital to meeting the challenges and opportunities faced by the mining industry, both today and in the future. From job losses to skills training, and from addressing discrimination to changing requirements in occupational safety and health, social dialogue can help governments, employers and workers find solutions and facilitate the promotion of decent and sustainable work. Social dialogue is particularly critical in ensuring that employers and workers in the mining sector are involved in the formulation of policies and actions to address the issues faced by women in mining, and fully support the implementation of policies to advance gender equality.

In this regard, it should be noted that social dialogue, including collective bargaining, has diverse forms and takes place at different levels depending on the contexts and traditions of each country. In LSM, trade unions and employers mostly seek to address complex market and technological challenges, preserve business competitiveness, and ensure better employment and working conditions. In ASM, by contrast, social dialogue is less developed and tends to involve other stakeholders as well, including but not limited to cooperatives, and community-based and non-governmental organizations. The participation of women in all of these processes is critical to represent the diversity of the workforce and ensure the democratic function of these processes (ILO 2019d).

4.4.1 Employer and business membership organizations

Minerals councils are the most common form of employer and business membership organization in the mining industry. They promote the interests of their members, negotiate agreements with trade unions and support the development of the mining sector. In most countries, minerals councils and their members are affiliated with, and represent their members' interests within, national associations of employers, for which the [International Organisation of Employers](#) is the apex body, as well as other national policymaking and advocacy forums.

At the global level, the [International Council on Mining and Metals \(ICMM\)](#) brings together 27 of the world's leading mining and metals companies and 36 regional and national mining associations to address the core sustainable development challenges faced by the industry. Since 2015, the ICMM has implemented a gender policy, which was recently expanded into a more comprehensive diversity and inclusion policy. While the team of directors at the ICMM has become gender equal, with 3 men and 3 women, as at July 2021 there were only 2 women among the 28 CEOs of the ICMM company members, one of whom was acting CEO.

While the ICMM has actively advocated for the inclusion of women in mining, the degree to which regional and national mining associations actively promote gender equality differs from country to country. Some of the most active national associations include the [Minerals Council South Africa](#), which recently launched a [campaign to address sexual and gender-based violence and harassment](#) at South Africa's mines and in mining and labour-sending communities, and the Colombian association, the [Asociación Colombiana de Minería](#), which has been supporting the mining industry's [comprehensive plan for gender policy](#) through a data survey on gender equality to establish the state of women's participation in the industry.

While many companies in the mining sector are taking action to advance gender equality, there is still scope for employers' organizations in all mining countries to step up support to their members in this regard. In its 2020 report on the performance of 38 LSM companies' practices, the Responsible Mining Foundation (2020) found that "there was virtually no evidence of companies having systems to regularly assess the impacts of their operations on women".

At the global and regional level, employers are coming together and taking part in industry-driven initiatives focused on specific minerals, such as the [World Gold Council](#), the [Cobalt Institute](#) and the [World Coal Association](#). Where the mineral in question is extracted and produced in ASM operations, these employers' organizations promote formalization and advocate responsible mining and trading from all sources.

Finally, there are a number of voluntary responsible mining initiatives that have gained traction. However, according to a review by the World Economic Forum (2015), the industry believes it is possible to prioritize and consolidate many of these initiatives, as well as better address issues of gender.

4.4.2 Workers' organizations

Coal miners were among the first groups of industrial workers to collectively organize. Beginning in the nineteenth century, and continuing through the twentieth, mining trade unions became powerful in many countries, and were successful in bargaining collectively for better working conditions and protection for their members. Historically, mineworkers' wives were responsible for organizing and supporting strikes and demands regarding working conditions. Not only were they vocal protestors, but they were also known to assault police with rocks, lead pickets and call public attention to strike goals (Gier and Mercier 2006).

Many national mineworkers' unions are affiliated to [IndustriALL Global Union](#) and the [International Trade Union Confederation](#), which work to build trade union power and strengthen trade unions in the mining sector through global support networks, and by campaigning and organizing. IndustriALL Global Union has launched several campaigns to advance decent work in mining, including to eradicate violence and harassment, enhance safety and health, and formalize ASM.

One of the biggest changes in trade unions during the past decades has been the rise of female membership. According to Visser (2019), "This process occurred nearly everywhere and began around 1970, with some countries in northern Europe and the Anglo-Saxon world taking the lead." However, there are reports of women labour activists who feel that some traditional trade unions in the mining sector are failing them (Benya 2012). This can be linked to a number of issues, including the lack of recognition of women's capacities, little or no female leadership, and lack of time due to family obligations.

One of the most pressing challenges for both workers' organizations and employers' associations is to organize and formalize workers and employers in ASM. While there are examples of minerals councils taking action to improve relations and resolve conflicts between LSM and ASM operators, and while trade unions in some countries support cooperatives in ASM, millions of women and men are not represented in the discussions and decisions that will determine the future of the mining sector.

▶ Box 13. Women's collectives

Women in the mining sector have created their own collectives to discuss and promote issues that are important to them. These groups are focused on different populations, such as women who work in ASM or indigenous women, and may have various objectives, for instance community engagement, good governance, human rights, justice or empowerment. All count as women in mining (WIM) organisations. Although they share a common vision, their objectives and forms vary.

In 2020 International Women in Mining (IWIM), a leading not-for-profit global organisation pursuing gender equality and promoting women's voices, access to opportunities and leadership in mining, convened the International WIM Alliance. This pioneering initiative brings WIM organisations together to leverage their collective strength through a global, multilateral collaboration platform to promote the emergence of a strong, unified WIM voice.

Source: GIZ 2019; IWIM, n.d.

Way forward



5.

Despite being a male-dominated sector, mining has attracted many women due to the opportunities offered by both LSM and ASM. However, women are frequently faced with discriminatory practices, unconscious bias and a lack of support systems that ultimately hinder their access to and long-term involvement in the sector.

The contribution of governments, employers and workers is key to challenging traditional gender roles in the sector and realizing equal rights and opportunities for women and men in law and practice. This includes collecting and analysing data disaggregated by sex and gender statistics; raising awareness about challenges and opportunities for women in mining; advocating for gender equality in both LSM and ASM; enhancing women's voice and representation in minerals councils and mining trade unions; respecting and affording equal rights to all; recognizing the disproportionate burden of unpaid care work on women and its effects on their professional lives; providing an ecosystem of support for women workers and entrepreneurs; and extending social protection to all, including workers in all types of employment in both formal and informal mining operations (ILO 2019d).

It is increasingly recognized that men must be part of the solution and that they play an essential role in promoting and supporting gender equality in the world of work. All men in mining can be effective advocates for change and any gender equality initiatives should involve both women and men as active and equal partners.

In order to deliver a future of work that achieves social justice for all and improves the working lives of women and men, the important contributions made by women to mining and mining communities must be acknowledged and celebrated, irrespective of their ethnicity, indigenous or tribal status, race, colour, presumed nationality or national origin, religion, political opinion, social origin, sex, sexual orientation or gender identity. As the world of work addresses the discriminatory practices against women in mining that it has endorsed in the past, it must translate its commitment to gender equality in mining into concrete action through transformative laws, policies and practices complemented by effective implementation strategies and mechanisms.

5.1. Suggestions for future action by the ILO and its members

5.1.1 Action by the ILO and its members

At its 334th Session, which was held from 25 October to 8 November 2018, the Governing Body of the International Labour Office approved the recommendations of the fourth meeting of the Standards Review Mechanism Tripartite Working Group. The Office was asked to commence work on the present study on gender equality in the mining sector with the aim of assisting the Governing Body in its consideration of "appropriate follow-up action to address any challenges for women workers in the mining sector, including with respect to whether specific technical assistance is necessary".

During that same session, the Governing Body approved the Standards Review Mechanism Tripartite Working Group's recommendation to launch a campaign to promote the ratification of the Safety and Health in Mines Convention, 1995 (No. 176), and to follow up with Member States currently bound by the outdated Underground Work (Women) Convention, 1935 (No. 45), to encourage the ratification of up-to-date instruments concerning occupational safety and health, including but not limited to Convention No. 176. The Governing Body also placed an item concerning the abrogation of Convention No. 45 on the agenda of the 113th Session of the International Labour Conference (2024).

In addition to this important step to address challenges for women workers in the mining sector, the ratification and application of international labour standards concerning discrimination, equal remuneration, workers with family responsibilities, maternity protection, occupational safety and health, human resources development, violence and harassment, social security, indigenous and tribal peoples, and the transition to formality are critical to advancing gender equality in the mining sector. Mining countries that have not yet ratified these international labour standards can consider doing so. All Member States of the ILO have an obligation to respect and promote the elimination of discrimination in respect of employment and occupation, and the promotion of the principle of equal pay for work of equal value, alongside the other fundamental principles and rights at work.

ILO Member States can furthermore repeal laws and regulations, and abolish cultural practices that limit women's access to the sector, and enact laws and policies to promote equal opportunity and treatment for women. This will require Member States to review their current body of legislation and introduce any changes necessary to address challenges and foster greater opportunities for women in mining, and in mining supply chains and communities.

To support the effective enforcement of legal provisions relating to conditions of work and the protection of workers, governments can invest in more effective and gender-sensitive labour inspection by strengthening the capacities and better coordinating the work of their labour and mining inspectorates. When labour and mining inspectors are well equipped and trained to handle gender equality issues, they play a key role in ensuring the application in practice of the principle of equal treatment and non-discrimination.

All Members of the ILO can support a better-balanced representation and voice of women in the world of work. This includes the representation of women in such key labour market institutions as national statistical offices, labour administrations, labour and mining inspectorates, occupational safety and health bodies, wage-setting bodies, national skills councils, dispute arbitration bodies and industrial relations institutions. Employers' and workers' organizations in the mining sector and mining communities can take proactive measures to increase women's participation and representation in their internal governance structures. Indeed, having more women in decision-making structures is key to prioritizing women's needs and aspirations in social dialogue and collective bargaining, and to ensuring better solutions for both women and men.

Concrete action is needed by governments, in collaboration with employers and workers, to foster an enabling environment for more women-led SMEs in both LSM and ASM. Governments can support both women and men entrepreneurs through local content policies to harness the mining industry's potential for development, create business opportunities for local businesses and potentially generate more indirect jobs along the supply chain. In line with the principles of the MNE Declaration, large mining companies can furthermore play a key role in promoting gender equality in mining, including by addressing discrimination and further advancing the inclusion of women in their operations and supply chains.

In order to design effective and evidence-based policies and action to advance decent work and gender equality in mining, there is urgent need for data disaggregated by sex and gender statistics on both LSM and ASM, as well as on their supply chains, that can guide policymakers as well as employers' and workers' organizations. Governments can strengthen the capacities of their national statistical offices to improve the available statistics about employment, skills, safety, health and working conditions, and social security coverage of women and men in mining, and obtain the necessary data to support policies and action for the sector and monitor progress and impact over time.

The vast majority of women in mining are engaged in ASM and face specific challenges in the informal economy that limit their access to better and safer working conditions. Governments, together with employers' and workers' organizations, should develop and implement coherent policies, strategies and measures to support the formalization of enterprises, cooperatives and workers in the informal ASM economy in line with the ILO Transition from the Informal to the Formal Economy Recommendation, 2015 (No. 204), as well as inputs from gender experts, women's groups and organizations, in order to ensure that women's livelihoods and safety needs are duly considered.

Members of the ILO could furthermore consider the possibility of convening a tripartite meeting to discuss the challenges and opportunities for advancing decent work and gender equality in ASM and adopt guidelines for future tripartite action by governments, employers and workers in this sector. This could build on the conclusions of the 1999 Tripartite Meeting on Social and Labour Issues in Small-Scale Mines, including the recommendation that barriers to women's participation in small-scale mining that are due to discrimination should be removed, and set out guidance for how the tripartite constituents could do so in practice.

5.1.2 Areas of technical assistance

To support the constituents in their efforts to advance gender equality and decent work in the mining sector, the International Labour Office can:

International labour standards, and fundamental principles and rights at work

- (a) as recommended by the Standards Review Mechanism Tripartite Working Group, assist Member States interested in the ratification and application of the ILO Safety and Health in Mines Convention, 1995 (No. 176), particularly the 98 Member States that had ratified the now outdated Underground Work (Women) Convention, 1935 (No. 45), to protect all women and men from sickness, disease and injury arising from both LSM and ASM operations,¹¹ including through situation and gap analyses of existing legislation, policies and programmes;
- (b) assist governments, employers and workers with the implementation of the ILO codes of practice *Safety and Health in Underground Coalmines and Safety and Health in Opencast Mines, and Safety & Health in Small-Scale Surface Mines: A Handbook* to protect all women and men in both LSM and ASM;
- (c) promote respect for the fundamental principles and rights at work in all Member States, including the elimination of discrimination in respect of employment and occupation, and the promotion of the principle of equal pay for work of equal value in the mining sector;

Policy advice and technical assistance

- (d) support mining countries in enacting and implementing laws and policies to advance equal opportunity and treatment for women to participate in the economic, social, and civil life of society; promote equal remuneration for work of equal value; guarantee sustainable social protection and maternity protection jointly with public care services and infrastructure; and promote better sharing of responsibilities between men and women; and which prevent and protect women and men from discrimination, violence and harassment, including for indigenous and tribal communities;
- (e) promote the repeal of laws and regulations, and the abolishment of cultural practices that restrict the types of work in which women can engage, limit women's freedom of movement and perpetuate gender-based work-related discrimination, violence or harassment;
- (f) provide policy advice and technical assistance to governments, in consultation with employers' and workers' organizations, to extend social protection to women and men in the mining sector through a comprehensive approach, including by extending coverage through mechanisms adapted to the particular needs and circumstances of the different categories of workers in both small- and large-scale, and informal and formal mining operations;

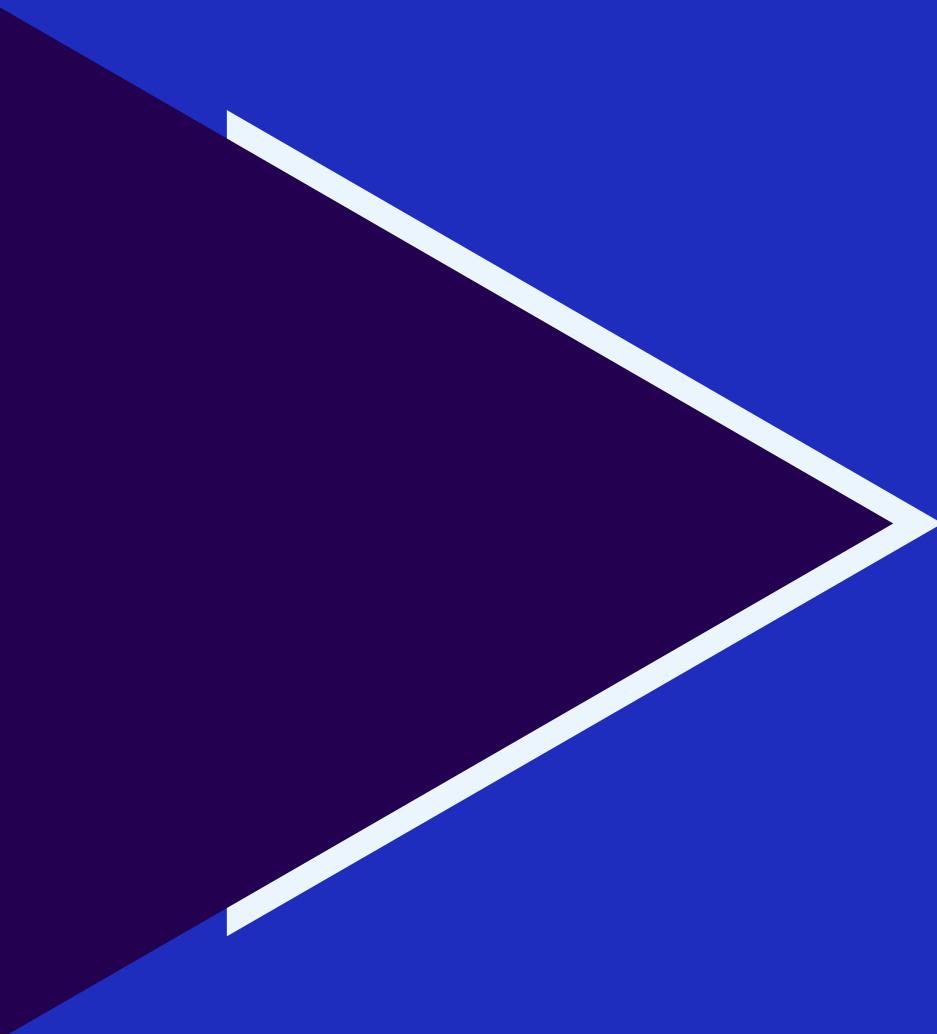
¹¹ This would include technical assistance on the ILO Safety and Health in Mines Recommendation, 1995 (No. 183), including the two provisions concerning the right of women to alternative work during health risk periods such as pregnancy and breastfeeding, as well as the provision of gender-specific sanitary and changing facilities (see box 11).

- (g) provide policy advice and technical assistance to governments, and employers' and workers' organizations to further implement programmes to address child and forced labour in ASM;
- (h) assist governments, employers and workers to develop and implement coherent policies, strategies and measures to support the formalization of enterprises, cooperatives and workers in the informal ASM economy;
- (i) support governments, and employers' and workers' organizations to develop and implement strategies to address existing and future skills gaps, including through the anticipation of future skills needs and increased investment in skills development and lifelong learning in the industry;

Capacity-building

- (j) strengthen capacities and improve the coordination of the sometimes separate functions of labour, mine and social security inspectors under the ministries of labour and mining to enhance gender-sensitive inspections and extend them to protect women and men in ASM, especially in remote mining jurisdictions and low-income mining countries;
- (k) strengthen the capacity of employers' and workers' organizations in the mining sector to step up support to their members to advance gender equality in both LSM and ASM, including through balanced representation of women and men in their internal governance mechanisms;
- (l) support national statistical offices to collect more and better data disaggregated by sex and generate better gender statistics for both LSM and ASM on employment; wages and gender pay gaps; occupational fatalities, injuries and diseases; working time; social security coverage; and other key topics;
- (m) generate a better understanding of the decent work challenges and opportunities for women and men in ASM, both globally and at the national level, in response to requests from Member States;
- (n) analyse the roles and work of women as contractors, subcontractors and suppliers, and the gender dynamics in local mining communities, particularly in low-income mining countries, and identify solutions to enhance opportunities and address adverse impacts on women;
- (o) generate a better understanding of the impact of climate change, demographic shifts, globalization and technological advances, as well as of the associated transitions to digital, low-carbon and circular economies, on decent work opportunities and challenges for both women and men in large- and small-scale mining, in mining communities and mining countries, with a view to providing evidence-based policy options to facilitate a just transition for governments, employers and workers.

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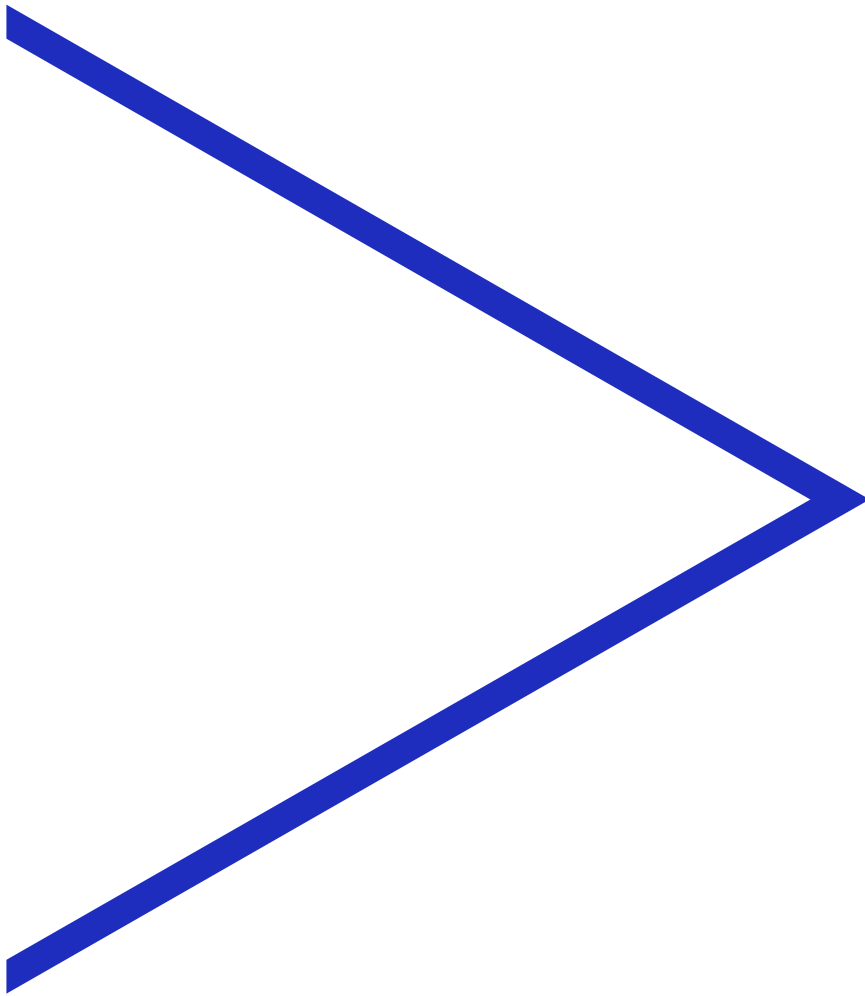
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