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Integrating Gender Equality and Mine Closure

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Integrating Gender Equality and Mine Closure: Actions for governments

November 2023

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1.0 Introduction

Mine closure is an essential component of developing, operating, and closing a mining operation. Proper mine closure planning ensures that the mine site is safe, stable, and environmentally sound, and mining communities are economically and socially sustainable into the post-mining transition. Gender equality is also an essential element of mining across the entire life cycle, including mine closure. Women in mining communities often experience unequal and negative impacts from mining and, at the same time, do not benefit equally from opportunities, such as employment and community support. As such, their experience with mine closure can be expected to be different than men's. However, the social impacts of mine closure on women—and the interconnectedness of gender equality and mine closure—are often insufficiently considered. A limited number of studies from South Africa, sub-Saharan Africa, and Canada have identified a strong correlation between mine closure and women's social, economic, and domestic vulnerability. The research shows that the outmigration of the male population to find livelihoods elsewhere and the social upheaval that comes with loss of employment and decreased economic activity are triggers for these impacts. The consequences can include increased crime rates, prostitution, poor nutrition, lack of food security, and heavier domestic and care responsibilities. The decline in the economic and social well-being of women can increase if the impacts of mine closure are not adequately considered.

This report addresses the interconnectedness of gender equality and mine closure by reviewing current issues and practices in both mine closure and gender equality—and, importantly, where they intersect—and provides policy recommendations for governments to ensure that gender considerations are integrated into all aspects of mine closure. The report explores how to implement processes that assess and respond to the interests of the entire community, including the following:

- Gender-based analysis (GBA) and intersectionality
- Community engagement approaches
- Post-mining land-use decisions
- Transitioning mine workers and those in the service and supply sector
- Community, social, and economic support for closure and the post-mining transition.

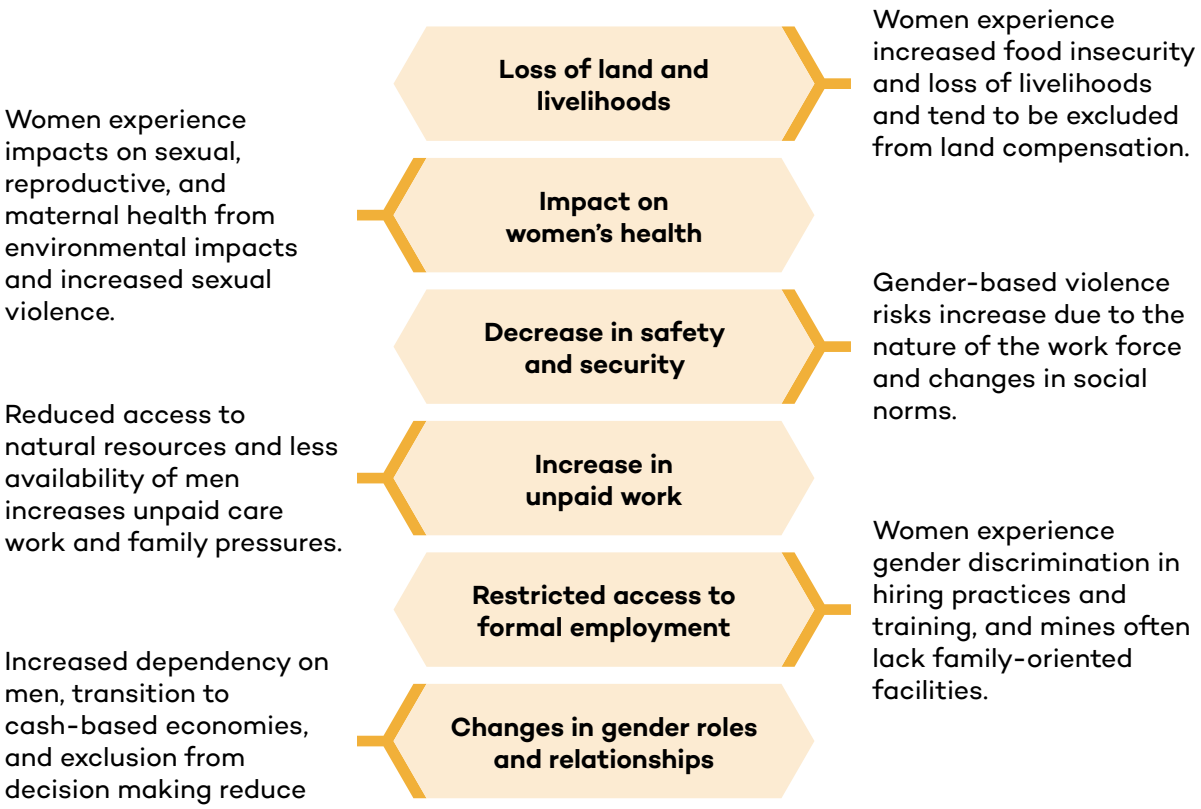
While most of the work to plan and implement mine closure is the responsibility of the mine operator, governments have an important role in setting regulations, standards, and guidance on how that closure work should be undertaken. As an overarching recommendation, governments should develop a gender mining strategy that addresses the concerns of women and men and takes an intersectional approach. This should include a requirement to use GBA in environmental and social impact assessments (ESIAs) and to update the analysis and integrate it into decisions as the mine operates. Government should also require that mine operators implement inclusive community and stakeholder engagement processes, such as the use of closure committees that include women and women's groups and ensure that the benefits and rights of women are part of post-mining land-use decisions. As closure approaches, governments and mine operators should implement support for the transition of workers, including those in the direct and indirect service and supply sectors where women are often employed. Finally, it is important that governments and mine operators provide social services and support to women during the post-mining transition, when gender-based violence may increase due to the social upheaval that can accompany mine closure.

Overall, as outlined in this report, gender equality must be integrated into mine closure planning and implementation across the mine life cycle to ensure that all members of the community can benefit from the opportunities provided by mining while being adequately protected from its negative impacts.

2.0 Overview of Gender Equality and Mining

Mining can bring many opportunities to communities and governments. This includes employment, community development benefits, procurement of services and supplies, and royalties and taxes. At the same time, mining can also impact communities through loss of land, environmental degradation, and changes to economic and social structures.

FIGURE 1. Gendered impacts of mining



In many mining communities, women and girls experience an unequal share of the negative impacts of mining but do not benefit equally from the opportunities, such as employment or community benefits. For example, women make up only about 5% to 15% of the global mining workforce (Tekinbas, 2022a). The reasons for the differentiated impacts on women in mining communities are diverse and include unequal participation in the labour force, historical discrimination and cultural biases, discriminatory legislative frameworks, exclusion from stakeholder engagement, lack of time and resources, and unequal access to education and training opportunities.

While every mining operation and its local communities are different, a number of common themes on the gender-differentiated impacts of mining have been outlined in recent studies and publications (e.g., Tekinbas, 2022b; United Nations Development Programme et al., 2022). Six key themes are shown in Figure 1:

- **Loss of land and livelihoods:** When land is lost to mining in many rural communities, women are most affected because they are often responsible for growing subsistence crops, collecting firewood and water, and ensuring the food security of their families. Even if the land loss is compensated for, women are unlikely to receive compensation because they often lack land rights.
- **Impacts on women's health:** Women can experience impacts on sexual, reproductive, and maternal health from mining operations and environmental contamination. In addition, women are more prone to sexually transmitted infections and diseases compared to men—mostly due to the increased prevalence of sexual violence and paid sex work triggered by mining activity.
- **Decrease in safety and security:** Gender-based violence risks increase in mining communities and the mining workforce for a number of reasons, including remote and male-dominated worksites, changes in social norms connected with the injection of cash into previously subsistence-based economies, and the presence of armed security forces. The economic and social upheaval that can accompany the closure of a mine can increase incidents of gender-based violence, including intimate-partner violence.
- **Increase in unpaid work:** Globally, women perform 2.5 times more unpaid care work than men do, disproportionately reducing the amount of time they are able to dedicate to paid work, to participating in public life, or to resting and enjoying leisure time (Ferrant et al., 2014). Mining projects can increase the amount and level of difficulty of women's unpaid care work, as natural resources tend to become scarcer and men less available to help meet unpaid care needs. As unpaid work increases, women are less able to engage in paid work, which increases family pressure and women's financial dependence on men.
- **Restricted access to formal employment:** Mining is one of the most male-dominated sectors in the world, with women making up only about 5% to 15% of the formal workforce. They are significantly underrepresented in programs that train the professionals, technicians, tradespeople, and equipment operators needed in mining (Tekinbas, 2022a). Accordingly, women in mining communities find it harder to replace the loss of their traditional livelihoods through employment opportunities in the mining sector. Remote, fly-in, fly-out mining worksites can also pose a challenge to the formal employment of women, as there are generally no family-oriented facilities

(such as childcare centres or early learning opportunities) at these mines to support women with young families.

- **Changes to gender roles and relationships:** Mining-related social changes can further tip the balance of power away from women. Loss of land-based livelihoods, increased unpaid work, and limited employment opportunities in the formal mining workforce increase the economic dependency of women on men—and, as men's purchasing power increases, so does their decision-making power within households.

Further detail on the gender-differentiated impacts of mining can be found in a number of resources, including *Towards Gender Responsive Implementation of Extractive Industries Projects* (Götzmann et al., 2019); *Position Paper on Gender Justice and the Extractive Industries* (Oxfam International, 2017); the *Integration of Gender Into Mining Impact Assessments* (Tekinbas, 2022b), and the Gender and Mining Governance Massive Open Online Course (United Nations Development Programme et al., 2022).

BOX 1. ADDRESSING GENDER EQUALITY IN THE MINING SECTOR: WHOSE RESPONSIBILITY?

Both governments and mine operators have a responsibility to address gender inequality in mining—with governments setting the standards, regulations, and processes that support gender equality. For their part, mine operators implement gender equality through community engagement activities, employment standards, and benefits to mining communities. Government responsibility lies in the fundamental role of government to support and protect its people and their well-being, as well as compliance with international human rights standards. For mining operations, gender equality has also been demonstrated to increase profitability, improve performance and safety records, increase the pool of potential employees, strengthen the social licence to operate, and meet public and investor demand (e.g., International Finance Corporation, 2020).

Addressing gender equality in mining is not just the right thing to do: it creates healthier, happier, safer, and more productive societies that, in turn, benefit the businesses, such as mining, that operate in those societies.

3.0 Overview of Mine Closure

Mine closure is an integral part of developing, operating, and closing a mining operation. Planning for closure starts early and should be part of mine planning and ESIA. This planning continues and is refined during mine operation and is implemented both during and after the mine ceases operation. Mine closure planning has increased in importance over the past couple of decades as the principles of sustainable development and environmental, social, and governance factors have become integrated into mine development and as the number of mines expected to close grows. At the same time, there is also expected to be a large number of new mines opening in the coming years to support the metals and minerals needed for new technologies and the transition to a low-carbon economy.

As guidance documents and regulations for mine closure have been updated and improved in recent years, there has been a focus on environmental and economic matters, such as reclamation, physical and chemical stability, and provision of financial assurance. Less attention has been paid to the social dimension of mine closure and the importance of engaging and working with communities on post-mining land uses and the socio-economic impacts of mine closure. According to recent work by the Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development (IGF), about 40% of mining jurisdictions have no requirement for the consideration of social and community impacts as part of mine closure planning (Stevens, 2021). This social dimension is where governments and industry need to ensure approaches to mine closure support gender equality, including in community engagement processes, employment opportunities, and decisions around post-mining land use.

To better understand the intersection of mine closure and gender equality, a short summary of important closure activities is outlined below for three different stages of the mining life cycle: prior to mining, mine operation, and the post-mining transition. More information on approaches to mine closure can be found in *Mine Closure: A Toolbox for Governments* (World Bank, 2021), *Integrated Mine Closure: Good Practice Guide* (International Council on Mining and Metals, 2019) and *Mine Closure Checklist for Governments* (Asia-Pacific Economic Cooperation, 2018).

Closure Activities Prior to Mining

The pre-mining stage is the initial stage of planning for mine closure. It is the time when communities and regulators have the opportunity to guide the closure vision and objectives and post-mining land uses. It is also the stage when mine closure is integrated into ESIA. Important activities at this stage include:

- **Community and regulator engagement:** Local communities and governments will generally inherit closed mine sites. As such, they should have a key role, together with the mine operator, in defining what closure looks like, how it takes place, and how the land will be used at the end of mining. An effective approach to engagement is to make use of closure committees that are formed early and continue their work throughout the mine life. These committees need to have broad representation from communities, governments, and stakeholders.
- **Post-mining land use:** Closure and reclamation activities and the development of the closure plan are based in large part on land capability and the defined post-mining land uses. As such, potential post-mining land uses that contemplate a range of environmental, social, and economic objectives should be considered early in closure planning.
- **Conceptual closure plan:** Conceptual closure plans should be developed in preparation for ESIA and outline the overall closure objectives and proposed post-mining land uses. They should also describe, at a preliminary level, how different components of the mine will be closed (e.g., tailings storage facility).
- **Integration of closure into ESIA:** ESIA should assess how the environmental impacts of mining will be addressed by closure and how the social and economic impacts of the post-mining transition will be minimized and supported by the mine operator and governments.

Closure Activities During Mine Operation

During mining operation, closure plans and post-mining land uses are updated and refined, and progressive reclamation activities take place. This is also the time for detailed planning on physical and social closure activities and implementation of these activities in preparation for mine closure. Engagement with communities, regulators, and stakeholders should continue throughout the life of the operation and influence all major closure decisions.

- **Updates and refinement to the closure plans:** As mining progresses, the closure plan should be refined with increasing detail on aspects such as the engineering designs for closure activities. It should include detailed completion criteria that define when each closure activity has been completed, along with a closure cost estimate.
- **Finalization of post-mining land uses:** Post-mining land-use capability and plans should be refined and finalized during mine operation and may need to be adapted to changing social, environmental, and economic realities and interests of the region.
- **Progressive reclamation:** As the mine operates, those parts of the site that are no longer required for mining should be reclaimed as soon as possible. This will reduce the impacts of the mine and allow for the refinement and improvement of reclamation approaches as final closure approaches.

- **Post-mining social and economic transition:** Planning for and implementation of social and economic activities that will support the transition of local mining communities to life after mining should be undertaken during the mine operation stage. A range of activities will need to be considered, depending on the character of the community and its dependency on the mine for social benefits and economic activity.

Closure Activities During the Post-Mining Transition

Once the mine has finished operation, all closure activities will be well underway, including any reclamation activities and the transition of workers and local communities to an economy without the active mining operation.

- **Implement and complete closure activities:** The physical closure activities that have been approved in the final closure plan are implemented by the mine operator.
- **Monitor closure success and receive approval of closure activities:** Completed closure activities are monitored, and issues or deficiencies are addressed by the mine operator. Closure committees should be involved in the monitoring activities to improve their effectiveness and build community confidence in the completed closure work. Once all environmental, social and economic closure activities have been completed according to the defined completion criteria and approved by the regulator, a closure certificate or similar document can be issued. This may also include the relinquishment of the site to government, communities, or another landowner.
- **Transition workers:** Direct and indirect mine workers will need to be supported as they transition to other employment and livelihoods. This could include severance payments for direct employees, retraining for local non-mining jobs, employment services, relocation allowances, and social services for all workers affected by the mine closure.
- **Support the social and economic transition in local communities:** Mine operators should provide support to the broader community to ease the impacts of closure. This could take the form of new business opportunities at the closed mine site (depending on the defined land uses), support for new community businesses, or providing infrastructure, such as power or water works.

4.0 Integration of Gender Equality Into Mine Closure

There has been considerable research and analysis on the gendered impacts of mining, as well as guidance and recommendations on the planning and implementation of mine closure. However, there are only a few published accounts of the gendered impacts of mine closure, even though the closing of large-scale mines can have a profound impact on women in mining communities.

Research from South Africa demonstrates a strong correlation between mine closure and women's vulnerability at three levels: socially, economically, and domestically (Sesele et al., 2021). According to the research, these impacts were mainly triggered by outmigration of the male population to find livelihoods elsewhere and decreased economic benefits. Overall, the study cited increased crime rates and prostitution, poor nutrition, lack of food security, and even heavier domestic and care responsibilities that together exacerbated gender inequalities in these societies.

Other research into the correlation between mining and domestic violence in sub-Saharan Africa noted a correlation between domestic violence and a downsized mining sector (Kotsadam et al., 2017). A qualitative assessment by the Pauktuuit Inuit Women Association of Canada (Kudloo et al., 2014) on the impact of resource extraction on Inuit women and families reported that community women were concerned that the skills obtained from employment at the mine were not transferable—or were transferable, but only to other mining operations. This was concerning because a nearby mine was set to close in 3 years, and there were no other locally available mining jobs. The study underlined the risk of a decline in economic and social well-being for Inuit women working for the local mine if the impacts of mine closure are not adequately addressed. Limited social services and the lack of social workers assigned to the mining community were discussed as the main community challenges presented by a mine closure.

Despite the lack of published studies, mine closure and gender equality intersect in most of the activities that take place in the planning and implementation of closure. To ensure gender equality in these closure activities, governments and mine operators should implement processes that assess and respond to the needs and interests of the entire community, including women and men equally. This starts with inclusive community engagement and GBA

and continues through to the social and economic support that mine operators and government provide to communities in the post-mining transition. The key areas of intersection between gender equality and mine closure are discussed below and outlined in Figure 2.

FIGURE 2. Intersection of gender equality and mine closure over the mine life cycle

Prior to Mining

The pre-mining stage is when gender-inclusive approaches to mine closure need to be initiated. Getting the processes right from this early stage will help facilitate successful planning and implementation of the social aspects of mine closure throughout the life of the mine. The important closure activities at this stage are ESIAs, community engagement processes, and post-mining land-use decisions.

ESIAs

Conventional impact assessment methods generally lack a gender-responsive approach,[1] and thus the experiences, needs, challenges, and opportunities concerning women and other

1 Gender responsiveness refers to outcomes that reflect an understanding of gender roles and inequalities and encourage equal participation, including equal and fair distribution of benefits (United Nations Development Programme, 2019).

underrepresented groups are not effectively considered (Götzmann & Bainton, 2021). In mine closure, the overall closure objectives and proposed post-mining land uses can benefit or impact women differently than men. For example, closure objectives that allow for crops and collection of firewood on the reclaimed mine site and post-mining community support that provides local access to potable water can benefit women and girls, as they are often primarily responsible for these activities in some communities.

To address the limitations of conventional assessment methods, governments should ensure a gender lens is used in ESIA or require the use of GBA or impact assessment methods along with the development of a gender-based workplan in response to the analysis. These approaches detect and assess the differential impacts of a mining project on people of all genders and can support the choice of closure options that minimize differential impacts and, ideally, benefit all members of the community. To ensure mine closure is part of the assessment, governments should require that ESIA includes a gender analysis and that mine closure plans are integrated into the process. To learn more about GBA and how it can benefit mining projects, please see Tekinbas (2022b) and United Nations Development Programme et al. (2022).

Gender-Responsive Approaches in ESIA

- Recognize that traditional ESIA processes often lack a gender-responsive approach.
- Use GBA or gender impact assessment in ESIA with the active involvement of women in mining communities.
- Ensure that gender-based analysis is integrated into the development of closure plans and proposed post-mining land uses.

BOX 2. GENDER-BASED ANALYSIS

GBA examines how gender roles, activities, needs, opportunities and the rights of women, men, girls, boys, and gender-diverse people are impacted differently in certain situations or contexts. A gender analysis should be integrated into all project assessments to ensure that gender-based inequalities are not exacerbated by developments and that equality is promoted wherever possible.

The Canadian government developed a specific framework called Gender-Based Analysis Plus (GBA+) to assess "how groups of women, men and gender-diverse people may experience policies, programs, and initiatives." The GBA+ approach seeks to move beyond gender and sex. The "plus" in GBA+ emphasizes the consideration of intersectionality and includes identity factors such as age, education, ethnicity, race, religion, income, culture, and other characteristics as integral parts of an assessment (Government of Canada, 2022).

Community and Stakeholder Engagement for Closure

Community and stakeholder engagement is a key part of closure planning, from setting overall closure objectives to post-mining land uses to the social and economic impacts of mine closure. However, women are often marginalized in community engagement and decision making, and thus the differential impacts of closure on women are insufficiently considered. It is critical that gender-inclusive and responsive approaches are used in mine closure engagement processes so that the voices of local communities and stakeholders from all genders and social groups are equally considered. It is also important to recognize that women are a diverse group themselves, so women from across the community and representing different social, economic, ethnic, age and identity groups should be engaged. Gender-inclusive approaches to community engagement and gender-based analyses can work in tandem and inform each other. It should also be recognized that defining the "local" mining community and assessing the impacts on women and men in those communities can be challenging in some circumstances, particularly with remote fly-in, fly-out mining operations. In these cases, additional effort will be needed to determine which communities are affected by the mine and to ensure the voice of those communities are included in engagements.

One approach often used in closure consultation is to form one or more closure committees with representation from the mine operator, governments, communities, and other stakeholders. These committees may be the main vehicle for community engagement after the initial community-wide consultation that is part of ESIA. It is important that closure committees include appropriate representation from women and women's groups in decision-making roles and address gender-based issues so the differentiated impacts of closure continue to be addressed over the operating mine life and into the post-mining transition.

To learn more about gender-responsive community engagement processes, please see Toolkit 3 in Unlocking Opportunities for Women and Business (International Finance Corporation, 2018).

Gender-Responsive Approaches for Closure Engagement

- Recognize that women are often underrepresented in community-based decisions.
- Use inclusive engagement approaches that specifically include women and women's groups (and gender-based issues) and that recognize the principles of intersectionality.
- Incorporate gender-disaggregated data collected during the ESIA in stakeholder and engagement strategies.

Post-Mining Land-Use Planning

One of the most important aspects of mine closure planning is the establishment of post-mining land use with the agreement of mine operators, government, and local communities. Most closure and reclamation activities will be established based on the next uses of the land. It is thus important that the impacts on—and opportunities for—women in various land-use options are fully considered. Aspects such as land rights and ownership need to be considered

along with livelihood and food security-related challenges. As mining operations can trigger a shift from subsistence-based economies to cash-based ones, it might be challenging to secure nutrition for families once the mining jobs are gone. Post-mining land uses that include agricultural production (or opportunities for improved agricultural productivity or land capability) may help address some of these issues. Implementing GBA and gender-inclusive community engagement processes will go a long way toward achieving this, but closure planning teams within mining operations should be fully aware of the potential differentiated impacts that post-mining land-use options may have on women within the community. The World Bank's *Mine Closure Toolbox for Governments* (World Bank, 2021) provides a good overview of approaches to establishing post-mining land uses (Section 7) and could be combined with the gender approaches outlined above as a pathway to establishing the post-mining land use.

Another important consideration for some mining sites is the Free, Prior and Informed Consent of Indigenous peoples for developments that affect their lands, territories, or rights. Accordingly, closure plans and the associated post-mining land uses should include the voices and agency of Indigenous communities, and specifically Indigenous women, who can have entrenched bonds with land and nature—and the biodiversity that the land hosts.

Gender-Responsive Approaches for Post-Mining Land-Use Planning

- Consider the potential benefits and impacts on women of different post-mining land-use options as well as access to and ownership of post-mining lands.
- Understand the implications of post-mining land use on livelihoods and food security of families, and in particular of women.
- Use inclusive engagement approaches that uncover the needs and challenges of people from all genders and social groups.

During Mine Operation

Closure activities during mine operation build from those established at the pre-mining stage. With effective use of GBA, inclusive community engagement, and well-structured and inclusive closure committees, efforts to understand and address the potential impacts of closure on people from all genders and social groups will have been established before mining starts. However, both the mine and local communities will change over the life of the mining operation, along with the gender roles and relationships within societies that host mining operations. Mine closure plans—including post-mining land uses and the potential social and economic impacts of closure on people from different genders, age groups, ethnicities, and social and economic groups—need to be updated regularly as the mine operates to accommodate changes in community dynamics and to address any new or updated regional development plans. This may require revising or redoing a GBA and ensuring that gender-disaggregated data is updated as the mine operates.

As mine closure approaches, detailed planning on the social and economic impacts of closure and the proposed steps to minimize negative impacts should get underway. This work will be

primarily facilitated by the mine operator, but governments are expected to be part of the process as the social (and economic) well-being of communities is a primary responsibility of governments. Some of the steps that should be taken include assessing the impacts of closure on all members of the community, not just employees. This recognizes that women are often employed primarily in the service and support sector, including indirect jobs such as catering or sales, rather than directly by the mine. Accordingly, governments and, to some extent, the industry should consider how the mine will support the transition of the community to a post-mining economy, including how women are impacted and what support and benefit measures will assist women with this transition.

Gender-Responsive Approaches During Mine Operation

- Revise and update mine closure plans, GBA, and gender-disaggregated data that consider changes in social and economic structures of local communities and women's representation in direct and indirect mining jobs.
- Plan and begin implementation of measures to address the social and economic impacts of closure, considering all members of the community and the service and support sector where women are often employed.

During the Post-Mining Transition

At the closure stage, considerable work will be underway to address the physical and environmental aspects of mine closure—reclaiming mine workings, removing infrastructure that is no longer needed, and ensuring the overall physical and chemical stability of the closed mine site. However, at the same time, the mine operator and government need to work with impacted communities on the social and economic transition that comes with the closure of the mine. In most cases, the local economy will shrink, people will lose their mining-related incomes, and changes in community dynamics will take place. These social disruptions can also bring gender-specific social and economic challenges, such as an increase in gender-based violence, food insecurity, and increased responsibilities for women. With effective planning both before and during mining, the primary impacts on the community, including on gender and other identity intersections, should be understood, and measures to address the impacts prepared for implementation. Actions and programming should have a long-term focus that prioritizes community sustainability after direct support from the mine has ended. Governments have an important role at this stage, as they will need to support not only the immediate post-mining transition but also the long-term social and economic sustainability of communities impacted by the mine closure. Important closure activities at this stage include the transition of mine employees and the service and supply sector, community support for the post-mining transition, and monitoring and ultimately relinquishing the closed mine site back to the community, government, or other landowner.

Transition of Mine Employees and the Service and Supply Sector

Mine operators have a clear responsibility to support the transition of their employees who are laid off when the mine closes. Severance payments, retraining, support for new businesses,

help with finding jobs at other mines, and relocation support are often implemented. There may also be support for business opportunities at the closed mine site depending on the defined post-mining land uses. However, it is important to recall that women generally represent only a small percentage of the direct mining workforce (5%–15%), and they are more commonly employed in the direct and indirect service and supply sector for the mine and its community (e.g., food services and accommodation), and lower-paying administrative and clerical positions (Tekinbas, 2022a). Governments and mine operators should assess and understand the broader impacts on employment when a mine closes and work to support the transition of women and men who work in these direct and indirect service and support jobs. Consideration should also be given to the fact that the reskilling needs of women may be different from those of men, given their concentration in certain occupations and indirect jobs. Also, while men may move to new mining sites to use their technical skills, women are less likely to do so due to gender norms and roles within households. Investing in transferable skills, such as digital and business skills, would increase women's resilience in the long term. Some possible actions include developing or updating regional development plans by governments and local communities that can identify or generate new opportunities compatible with women's skill sets; investing in traditional local economies; and for government and mine operators to extend support for retraining and business diversification to the direct and indirect service and supply sectors.

Gender-Responsive Approaches for the Transition of Workers

- Recognize that women in mining communities may be primarily employed in the service and supply sectors. Extend transition support to these workers as well as mine employees.
- Recognize the specific reskilling/upskilling needs of women in the mining workforce and invest in supporting transferrable skills, such as digital and business skills.

Community Social and Economic Support for the Post-Mining Transition

Mine closure can create a level of instability in local communities as jobs and economic activity are reduced. It is important for mine operators and governments to recognize that this instability can result in an increase in gender-based violence, including intimate-partner violence. While gender-based violence at mine sites and in mining communities should be addressed by the mine operator and government at all stages of the mining life cycle, additional measures should be in place at closure to minimize gender-based violence. This can include implementing education and positive mind-shift programs for men that raise awareness of why gender-based violence may increase at closure and ensuring that counselling mechanisms and women's shelters are in place and operational to assist women who have been or may be subjected to gender-based violence. This is an important human rights issue that governments have a responsibility to address under international human rights law. It should also be recognized that addressing gender-based violence can be more challenging with remote fly-in, fly-out mines where workers and their families reside in a

number of communities far from the mine site. Governments should work with the mine operator to identify these communities and ensure that education programs and adequately staffed women's counselling centres, social workers, and temporary shelters are operational in these communities. As a transition to sustainable government-funded programs, mine operators can support the employment of social workers and operations of women's counselling centres during the post-mining transition.

At mine closure, the community support that was provided during operation will need to transition to support that will assist the community after the mine has closed. This could include transferring existing infrastructure (such as power or water systems used by the mine) to communities or setting aside endowments that provide funds for the community into the future. As with other community engagement activities related to closure, it is important that women and women's groups are full participants in the discussions and decisions. The mine operator and government should also have up-to-date data on the status of women in the community to help understand the type of community support that will benefit women as well as men.

Gender-Responsive Approaches for Community Support

- Recognize that gender-based violence may increase at closure. Implement education and awareness-raising programs targeting men and ensure that gender-based violence counselling and shelters are in place and accessible to women to provide social support networks and facilities for women.
- Include post-mining community social and economic supports that benefit women and children as well as men.
- Invest in social workers, rehabilitation programs, and community centres in post-mining communities.

Monitoring and Approval of Closure Completion

Mine operators are increasingly including community groups in monitoring activities, both during operation and at closure. This is normally focused on environmental monitoring during operation but should include both environmental and social monitoring during closure to ensure the social supports put in place for the post-mining transition are meeting their objectives. For this to be an inclusive activity, women and women's groups need to be part of these monitoring activities and, where appropriate, be included in approval of environmental and social completion criteria before final closure is approved.

Gender-Responsive Approaches for Monitoring

- Include women and women's groups in monitoring activities and make sure that their voices are a part of decision making and approval of completion criteria.


Photo: Solidaridad

5.0 Recommendations for Governments

Most of the work to plan and implement mine closure is the responsibility of the mine operator. However, governments have important responsibilities in setting regulations, standards, and guidance on how that closure work should be undertaken and in supporting mine operators and communities with the social and economic transition that occurs when a mine closes. Gender equality and inclusiveness in mine closure is one important area where government should set standards and participate in its role of supporting and protecting the people of its jurisdiction and their well-being and in adherence to international human rights standards. Following from the discussions in this report, Table 1 outlines recommendations and actions that government can take to address aspects of gender equality in mine closure. Most of these recommendations support and complement other regulatory frameworks such as ESIA or responsibilities of government, such as the social services required to support a safe and healthy community but have been adapted to address the specific requirements needed to achieve gender equality in mine closure.

An overarching recommendation is for government to set the policy requirements and framework that will ensure mine operators implement gender-responsive approaches to mine closure.

TABLE 1. Integrating gender equality into mine closure: Recommendations and actions

Recommendation	Comments	Government actions
Develop a gender mining strategy	A gender strategy for mining will provide a framework to assess and implement gender equality across all phases and aspects of mining, including mine closure. The strategy should address the concerns of women and men and take an intersectional approach. Tekinbas and Deonandan (2021) provide a good overview of policy options that should be considered for a gender mining strategy. See also Chimegsanaa (2019) for an example of a mining gender strategy developed for Mongolia.	• Align the strategy with human rights standards. • Set achievable, measurable, and clear targets and indicators for government and mine operators. • Ensure the strategy supports the advancement of women in the mining workforce and equality, empowerment, and well-being in mining communities. • Ensure gender specialists are available to support, participate in, and monitor the implementation of the gender strategy for all phases of the mining life cycle.
Require the use of GBA in ESIA	GBA ensures that data is available to identify, assess, and address the differential impacts that mine closure may have on people of all genders within a community. It will also help inform inclusive community engagement processes and the potential impacts and opportunities for women of different post-mining land-use options. Tekinbas (2022b) provides a review of GBA methods.	• Provide guidance and principles for assessments, including intersectionality analysis and gathering gender-disaggregated baseline data on aspects such as land use and ownership, local skills supply, and the gendered division of labour. • Require that mine operators develop a gender-responsive workplan and demonstrate how issues identified in GBA have been addressed. • Require updates to assessments as closure approaches to address changes over the mine life.

Recommendation	Comments	Government actions
Require inclusive community and stakeholder engagement in the development and implementation of mine closure.	Mine closure objectives, post-mining land uses, and the implementation of closure activities should be undertaken in consultation with mining-affected communities and stakeholders. Toolkit 3 in *Unlocking Opportunities for Women in Business* (International Finance Corporation, 2018) reviews a suite of tools to support community engagement strategies for both female and male community members.	• Require that mine operators undertake meaningful engagement with communities and stakeholders and that these processes meaningfully include women and women's groups. • Consider leadership training for women that will support their participation in engagement. • Observe and participate in engagement activities to inform and support government actions related to closure.
Require the formation of closure committees that include women and women's groups.	Closure committees that include representation from a broad and inclusive spectrum of community, government, and stakeholder interests can support ongoing and informed engagement across the entire mine closure life cycle. They provide an engagement continuum between periodic community-wide engagement activities.	• Require the inclusion of women and women's groups on closure committees and ensure that gender-based issues are addressed. • Actively participate on committee(s) to ensure the interests of government and society are represented.
Ensure the impacts, benefits, and rights of women are part of post-mining land-use decisions.	Post-mining land-use options can have differential impacts on men and women in mining communities. To address this, GBA, gender-disaggregated data, and inclusive engagement processes should be used in post-mining land-use decisions. Section 7 of the *Mine Closure Toolbox for Governments* (World Bank, 2021) provides an overview of approaches to establishing post-mining land uses, although it does not specifically incorporate gender aspects.	• Require that inclusive engagement activities and gender-based assessments inform discussions and decisions and that a gender-based workplan is implemented. • Participate in decisions to support community interests, to integrate development plans and objectives, and to meet the needs of women in post-mining land uses.

Recommendation	Comments	Government actions
Support the post-mining transition of workers in the direct and indirect service and supply sector.	Mine closure can have a profound effect on the direct and indirect service and supply sectors of mining communities, which is often where women are employed. Workers in these sectors often receive less support and attention during closure than direct mine workers.	• Integrate gender-disaggregated employment data into decisions. • Support the post-mining transition of mining communities, including the development or updating of regional and economic development plans with specific consideration for women. • Provide support to women and men from the service and supply sector with actions such as retraining, employment services, relocation allowances, and support for new business development.
Provide social services and support to women during the post-mining transition.	The post-mining transition period creates a level of social and economic disruption within mining communities. This disruption can result in an increase in gender-based violence, including intimate-partner violence.	• Provide social services and support networks to women, such as shelters, counselling centres, and health facilities. • Ensure coordination of relevant ministries, such as gender, social services, education, and economic development. • Provide education and awareness activities on gender-based violence particularly targeting men and boys, and partner with the mine operator, local women's organizations, and civil society organizations to deliver these activities. Ensure that law enforcement agencies are included in training programs.
Encourage mine operators to include community members and women's groups in closure monitoring.	The involvement of community members in closure monitoring extends engagement processes through to the final closure and relinquishment of the mine site and supports community satisfaction with the closure works. Women and women's groups should be included in monitoring activities. Well-structured closure committees can perform this role.	• Require that women and women's groups participate in monitoring. • Ensure that both environmental and social completion criteria and commitments are approved by the regulator before closure is deemed complete and the mine site relinquished.

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