CNV Internationaal

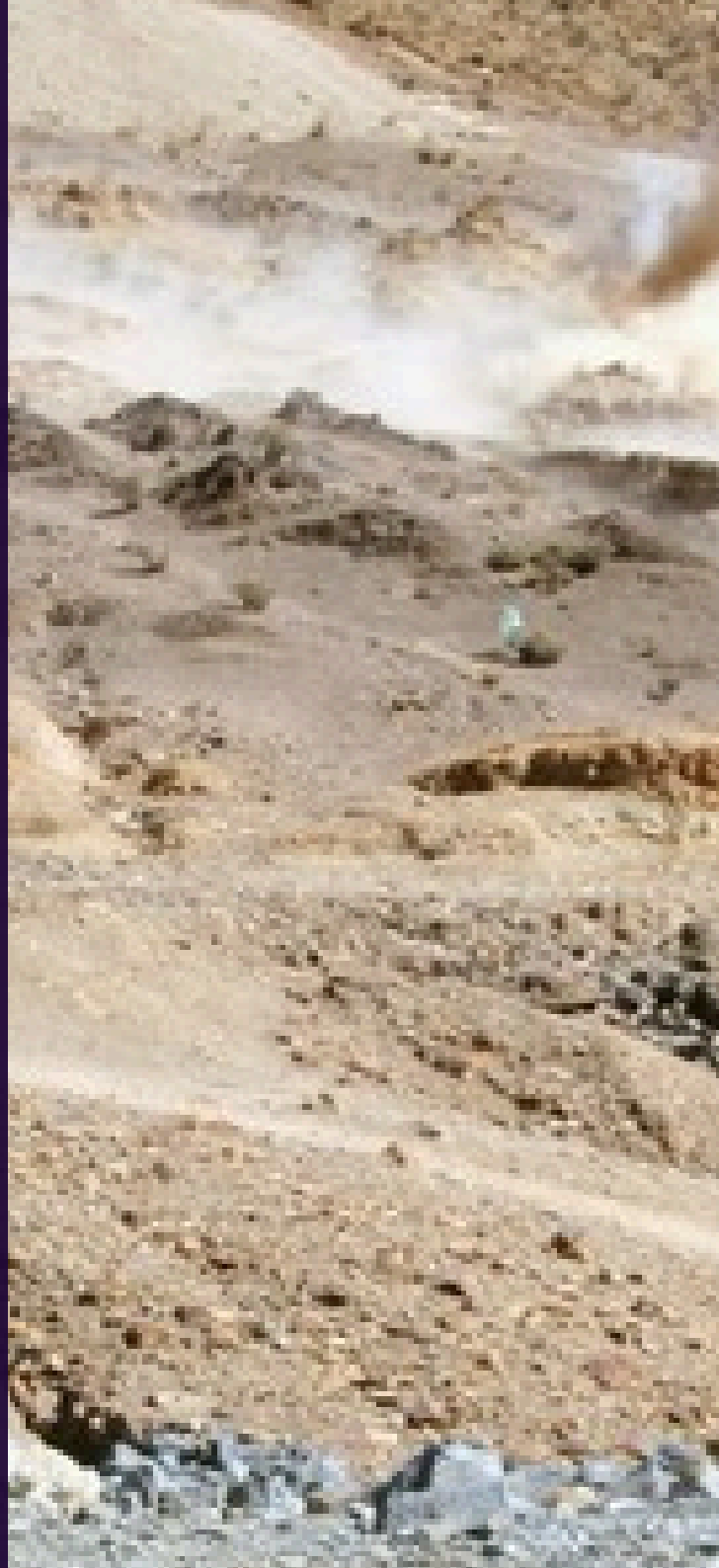
Fair Work Monitor

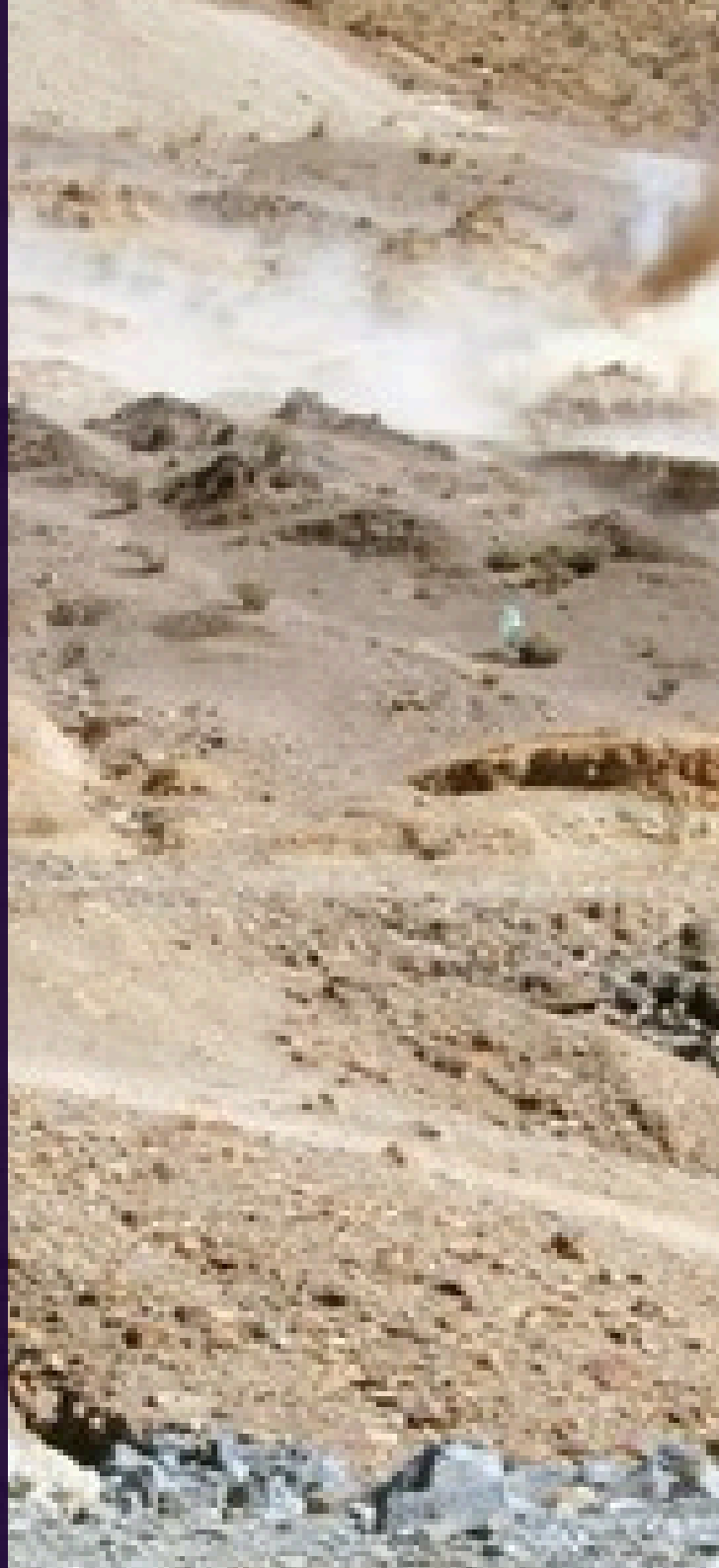
Copper Mining in Peru

The Fair Work Monitor results in the Peruvian Copper Sector

November 2025

INDEX





Fair Work Monitor results in the Peruvian Copper Mining Sector

Executive Summary

The Fair Work Monitor reveals that occupational health and safety (OHS) risks remain widespread and serious across Peru's copper mining sector, affecting workers throughout the production chain. Despite the existence of OHS systems and training, many workers continue to face significant physical, chemical, and psychosocial hazards.

Exposure to dust, noise, extreme temperatures, and heavy machinery is nearly universal, with many workers describing dust and noise levels as 'high' or 'unbearable'. Chemical exposure, including to heavy metals, is common but insufficiently monitored, leaving workers uncertain about long-term health effects. Fatigue, stress, and sleep deprivation are also prevalent, driven by long shifts, remote work locations, and limited rest.

Nearly half of surveyed workers were aware of an accident in the first half of 2025, and over one-fifth reported a work-related illness, underscoring the cumulative impact of hazardous conditions. While most companies maintain OHS protocols, workers cite persistent gaps in protective equipment quality, ergonomic measures, fatigue management, and chemical testing.

The findings highlight that technical measures alone are not enough. Effective OHS requires worker participation, strong social dialogue, and respect for freedom of association, supported by insights from worker and union perspectives. Barriers such as anti-union practices and limited consultation restrict workers' ability to raise concerns or contribute to safety improvements.

To achieve lasting progress, the sector must adopt a worker-driven, risk-specific, and holistic approach, integrating physical, mental, and psychosocial well-being. Collaboration across the supply chain is also essential: buyers, investors, and initiatives like the CopperMark can promote accountability and embed worker perspectives into due diligence and safety systems. **Empowering workers through dialogue, representation, and targeted interventions offers the most effective path towards a safer, fairer, and more sustainable Peruvian copper industry**.

1. Introduction

CNV Internationaal, rooted in Dutch trade union CNV, has long standing experience in international supply chains or minerals, agriculture and textiles. We firmly believe that collective action within these supply chains can create real impact. Our approach is rooted in social dialogue, with workers playing a central and leading role.

1.1 The Mining sector in Peru

In these disruptive times for international trade, resilient supply chains are more important than ever. Collaboration among supply chain partners is essential for building a more sustainable sector and for helping the industry meet the increasing due diligence requirements established by the Organisation for Economic Co-operation and Development (OECD) and international regulations such as the Corporate Sustainability Due Diligence Directive (CSDDD).

The mining sector is among the most dangerous to work in: although only 1% of workers worldwide are employed in mining, the sector accounts for 8% of fatal occupational accidents (ILO, 2015). Furthermore, our previous research (see references) has shown that occupational diseases claim more lives than accidents, and the number of workers affected by such diseases continues to rise (Quiroz et al., 2023b). For these reasons, occupational health and safety has been identified as a high-risk area for supply chain due diligence, and this section of the analysis has been given additional emphasis.

The mining sector is under increasing pressure due to the energy transition, with demand for critical minerals rising rapidly. Copper is one such mineral, essential to the global economy for its unique properties, including electrical and thermal conductivity, corrosion resistance, and malleability. These characteristics make copper indispensable not only for solar panels, wind turbines, electric vehicles (EVs), and energy storage technologies, but also for construction, electronics, telecommunications, and transportation.

As global demand for electrification and technology rises, copper's strategic importance continues to grow.

Peru is a major player in global copper production. It is the world's third-largest producer of mined copper, behind Chile and the Democratic Republic of Congo (Cochilco, n.d.), and it holds the second-largest copper reserves worldwide.

Copper supply chains are complex, involving multiple products, by-products, and processing stages carried out in different parts of the world. In Peru, 88% of production consists of 'copper concentrates' — a rough product typically exported for refining or smelting before entering other industries (Cochilco, n.d.). Therefore, copper products purchased from other regions are likely to have their origin in Peruvian mines.

In 2023, CNV Internationaal conducted a study on working conditions in the mining sectors of Colombia, Peru, and Bolivia (Quiroz et al., 2023 a). Risks to labour rights, decent work, and OHS were observed in all three countries according to the studies.

To gain a better understanding of the specific risks in Peruvian copper mining, this study was conducted using the Fair Work Monitor (see section 1.2). The findings will be presented in the following chapters, along with recommendations for improvement, with a particular focus on opportunities for supply chain collaboration.

1.2 The Fair Work Monitor (FWM)

The Fair Work Monitor is a participatory tool developed by CNV Internationaal that collects workers' perceptions of their working conditions. In this particular round of the Fair Work Monitor, special focus was added on the topics of social dialogue and OHS. The 2025 Fair Work Monitor also placed a strong emphasis on freedom of association and the critical role of trade unions in protecting workers' rights.

From the earliest stages of the study, trade union leaders were involved in shaping the questionnaire, identifying priority issues, and suggesting modifications to ensure the survey accurately captured workers' experiences across the sector. Following the analysis, the data were presented to union leaders for contextualisation, validation, and assessment of recognisability.

The Fair Work Monitor was implemented with three main objectives: first, to identify Human Rights and Due Diligence (HRDD) risks in the metal supply chain; second, to increase transparency about the conditions of copper extraction; and finally, to enable evidence-based collective action through social dialogue between workers and employers.

This report is a unique effort, as information is collected directly from workers, supporting the legitimacy of the analysis and laying the groundwork for meaningful stakeholder engagement, comprehensive risk assessment, and targeted collective action.

The general characteristics of the participant group are presented in **Annex 1** at the end of this report.

Peru

The information in this report was provided by the direct worker bases of two large-scale open-pit mining operations: one in the Arequipa region, at an altitude of 2,700 metres, and one near Cusco, at 4,000 metres. Both mines extract copper concentrates.

2. Methodology

2.1 Questionnaire

The Fair Work Monitor uses a standardised, tested questionnaire. This standardisation enables comparisons of findings across years and sectors and allows trends to be identified.

The questionnaire was trialled with focus groups of union leaders, and suggested adjustments were incorporated to improve respondents' understanding and more accurately capture working conditions, with particular emphasis on OHS, including chemical and environmental risks. The monitoring covers sociodemographic information, labour relations, existence and access to complaint mechanisms, freedom to report issues, OHS risks, availability and maintenance of protective equipment, care services, and accidents.

2.2 Sampling and Participation

The sample was collected using Respondent-Driven Sampling (RDS) (Heckathorn, 1997; Mullo, 2021), a method suitable for hard-to-reach populations.

The process began with "seeds" among unionised workers and expanded to direct workers across different areas and shifts, including mining, maintenance, and processing.

Data collection was digital, with quality controls and monitoring to ensure coverage of diverse profiles. Participation was voluntary and anonymous, informed consent was obtained, and all data were treated confidentially.

The RDS method extends reach to less visible subgroups but does not guarantee representativeness across the sector; results should be interpreted as trends rather than precise population estimates (Cerro Verde, N = 338 participants; Antapaccay, N = 50 participants) (see Annex 2). Access depended on CNV Internationaal's networks. Data were collected from 27 June to 8 August 2025 using KoboToolBox and KoboCollect.

2.3 Data Cleaning

All collected data were carefully reviewed to ensure accuracy and internal consistency before analysis. Responses were checked for outliers, missing values, and inconsistencies, with unreliable entries excluded where necessary. Data cleaning was conducted systematically across all multiple-choice questions. Outliers were not simply removed but examined and interpreted to determine whether they represented genuine variation or possible reporting errors. This approach ensured that the final dataset reflects realistic patterns and supports robust interpretation. **The data-cleaning process forms the foundation for the subsequent production of results and discussion of key findings**.

2.4 Groups and Representatives

Due to the nature of the sampling method, full representativeness of all subgroups cannot be guaranteed. Nevertheless, the two mining sites provide sufficiently large and well-defined groups to allow for meaningful interpretation.

Analyses were conducted only where data quality and sample size allowed.

For health and safety, multiple indicators were considered together to offer a comprehensive overview of working conditions, even where individual indicators might be affected by sample bias. While absolute representativeness cannot be claimed, the results are sufficiently robust to highlight notable differences and trends and serve as a credible basis for further discussion and examination.

3. Key Findings: Working Conditions and Risks to Worker's Health

This chapter presents the key findings on working conditions at mining sites and the associated risks to workers' health.

The WHO Constitution (1948) defines health as "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity." In line with this definition, we examine the full spectrum of risks to workers' health, including physical, chemical, biological, psychosocial, and ergonomic hazards.

Addressing these issues is paramount not only to safeguard workers' health and lives but also to uphold responsible supply chain standards in the mining industry.

3.1 Risks to Workers Health

3.1.1 Physical Risks

Physical risks in mining are considerable. Workers may, for example, suffer injuries from falls or collapses, trauma from explosions, hearing loss due to noise and vibrations, heat stroke from high temperatures, and back or neck problems caused by poor posture and heavy lifting.

These hazards arise from the nature of mining activities, including the use of heavy machinery and exposure to extreme environmental conditions. For this reason, it is essential to identify risks in advance, allowing for appropriate corrective action before they escalate.

Workers participating in the monitoring were asked about these various risks. We found that 96% of respondents reported exposure to dust and particulate matter, 83% to noise, 66% to sunlight, 48% to gases and extreme temperatures, 38% to smoke, and 8% to acid rain (Maximum Acid Deposition – MAD) (Table 1).

Exposure to environmental elements	%
Dust - Particulate matter	96%
Noise	83%
Sunlight	66%
Gases	48%
High or Low Temperatures	48%
Smoke	38%
Acid Rain (Maximum Acid Deposition - MAD)	8%

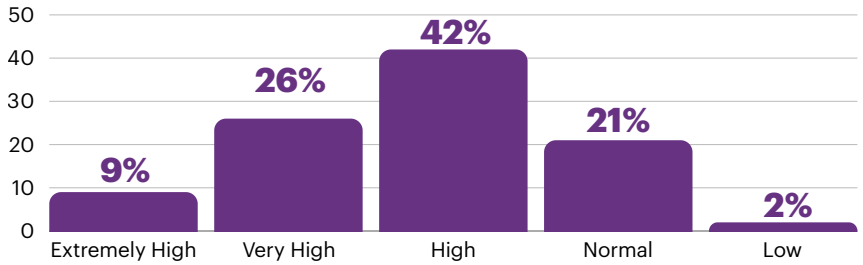
Table 1. Exposure conditions to different environmental elements

To gain a deeper understanding of workplace hazards, respondents exposed to risks were asked to rate the intensity of their exposure, providing insight into the challenges they face daily.

Dust and particulate matter affect 96% of workers, of whom 77% reported high exposure (42% high, 26% very high, and 9% extremely high), emphasising the need for effective protective measures (Fig. 1).

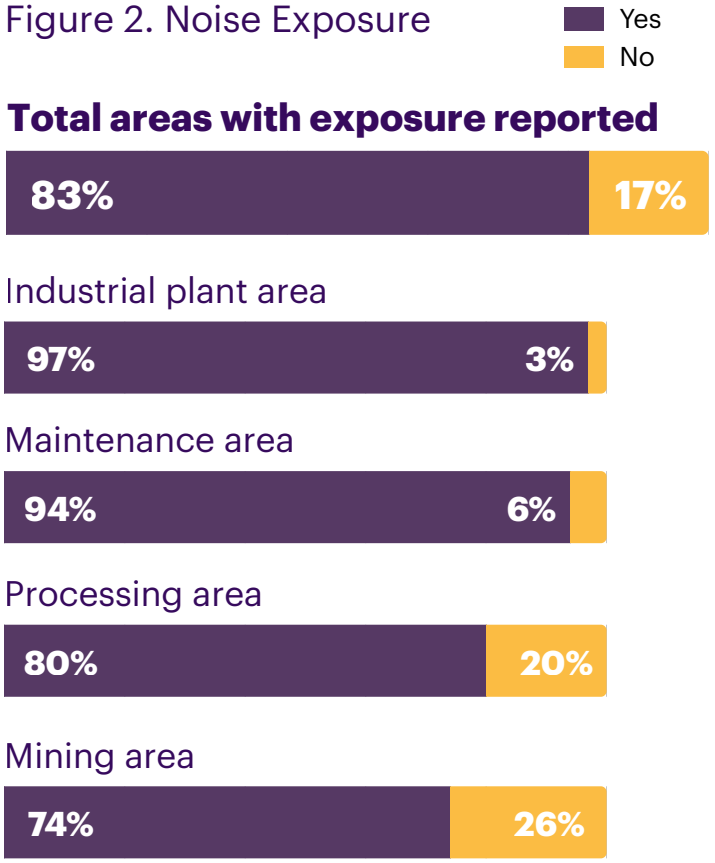
Sunlight and noise are significant hazards, particularly in open-pit mining, where workers spend long hours outdoors. Over 66% of respondents reported exposure to sunlight (11% 'always', 47% 'often', 27% 'frequently', and 14% 'sometimes'), which can lead to UV-related skin damage and heat stress, while more than 83% reported exposure to noise (1% 'unbearable', 19% 'extremely high', and 63% 'high'). Prolonged exposure to these hazards can adversely affect health.

Figure 1. Intensity of dust exposure



A follow-up question asked workers where in the production process they are exposed to different types of risks. Four key areas were distinguished: the mining area, maintenance, processing, and the broader industrial plant (Fig. 2)

Figure 2. Noise Exposure



Dust exposure is nearly universal, affecting almost every worker across all areas. However, clear differences emerge for other types of risks. As shown in the table and figure below, workers in maintenance, processing, and the industrial plant report particularly high exposure to multiple hazards, especially noise, gases, and smoke (Table 2).

	Mining	Maintenance	Processing	Industrial Plant
Dust	97%	98%	98%	90%
Noise	74%	94%	80%	97%
Sunlight	57%	80%	63%	77%
Gases	28%	71%	60%	68%
Temperature	42%	56%	50%	52%
Smoke	36%	60%	20%	19%

Table 2. Exposure conditions divided by work areas

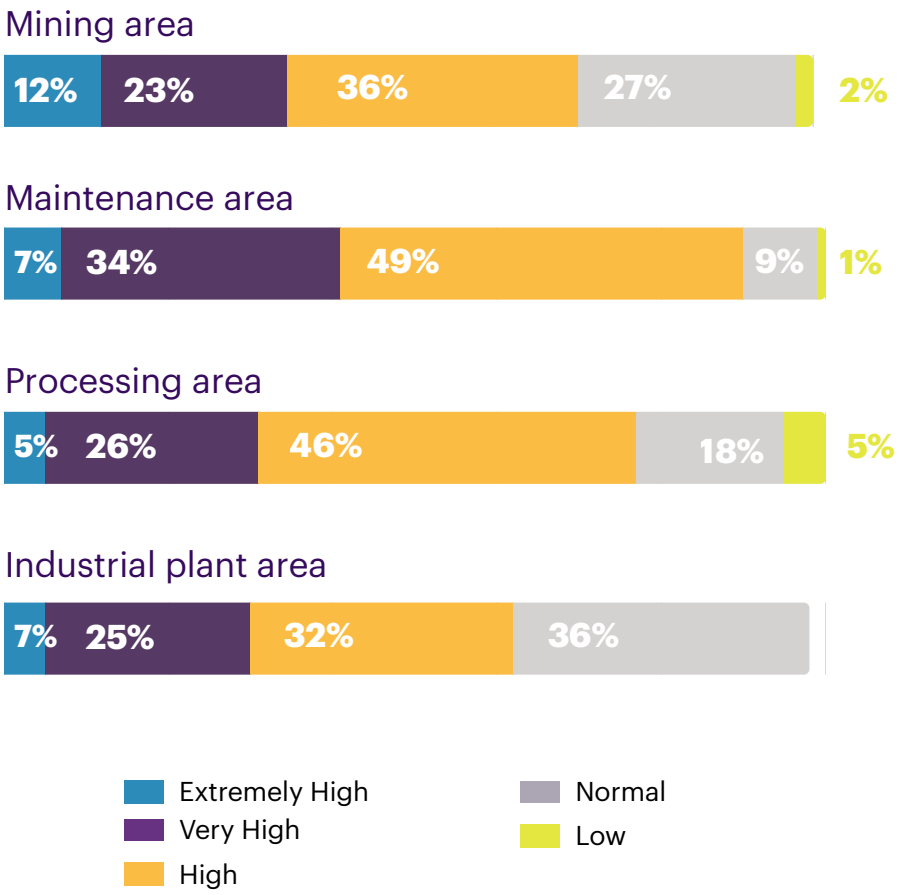
Overall, workers in maintenance, processing, and the industrial plant areas report the highest levels of exposure to various risks.

Maintenance workers consistently report high exposure across nearly all categories, particularly to gases and smoke. These findings underscore the need for a targeted OHS strategy, tailored to the specific risks at each stage of production.

When examining the intensity of exposure across different stages of the production process, clear differences between work areas become evident. As shown in Figure 3, in maintenance, 89% of workers describe their exposure levels as ‘high’, ‘very high’, or ‘extremely high’. Similarly, in processing, noise exposure is particularly severe, with around a quarter of workers rating it as ‘extremely high’.

These results indicate that many workers face substantial exposure to dust, sunlight, and noise, emphasising the need for ongoing safety measures. The data above demonstrate that work at both open-pit mines studied carries a significant risk of exposure to environmental hazards.

Figure 3. Intensity of Dust Exposure by Area



3.1.2 Chemical Risks

The risk of chemical exposure is a critically important aspect of mining activities.

Open-pit mining often exposes workers to toxic substances and heavy metals such as lead, cadmium, and arsenic. These contaminants can persist in the environment for years and pose serious health risks, including neurological, respiratory, and kidney damage, as well as increased cancer risk.

For this reason, workers participating in the monitoring were asked about chemical risks, specifically whether their company conducted tests for exposure to heavy metals. Thirty-seven per cent of workers reported being exposed to chemical substances, yet only 19% of all respondents had undergone testing for heavy metal exposure. This is concerning, as 81% of workers are unaware of whether they are at risk.

3.1.3 Biological Risks

Biological risks refer to workers' exposure to environments contaminated with biological agents, including bacteria, viruses, and microorganisms, whether parasitic or capable of causing infections and disease.

These biological agents may be present in soil, subsoil, groundwater, drinking water, air, and other sources.

11% of respondents reported exposure to pathogenic biological agents, defined as microorganisms capable of causing disease. Of those reporting exposure to biological risks, 26% considered their level of exposure to be high. These respondents were distributed across all areas of the production process.

3.1.4 Psychosocial Risks

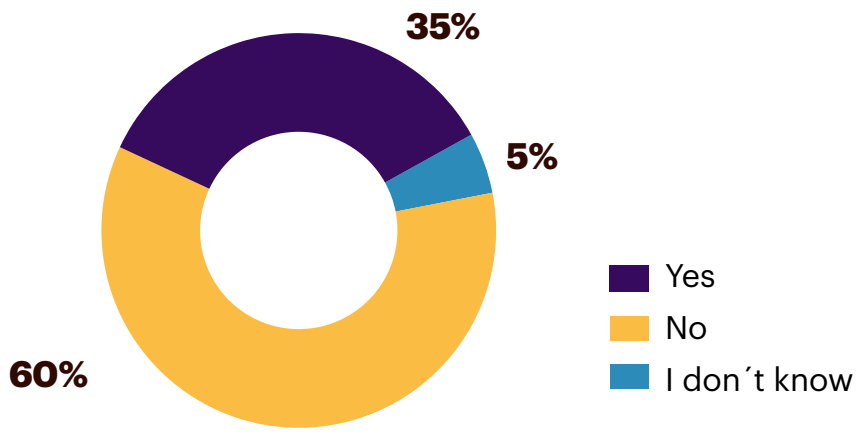
Psychosocial risks in the mining sector are aspects of the work environment that can impact workers' mental health, potentially causing stress, anxiety, and excessive fatigue.

High workloads, physically demanding tasks, long working hours, and separation from family all place considerable strain on workers.

When asked about sleep, most participants reported sleeping between 4 and 6 hours per night (52%), followed by 6 to 8 hours (39%). Alarmingly, 8% of workers reported sleeping less than 4 hours, which is concerning given that the recommended amount of sleep is seven or more hours per night (Mayo Clinic, 2023). In addition, 11% of respondents indicated that they require psychological or psychiatric care.

Respondents were also asked about their experiences with microsleeps. Microsleeps are very brief, involuntary episodes of sleep lasting only a few seconds, during which a person temporarily loses awareness. In the context of mining, where operators handle large and potentially hazardous equipment, microsleeps represent a serious safety risk (Fig. 4).

Figure 4. Reports of Microsleeps during the workday



Over a third of workers (35%) reported experiencing microsleeps during the workday, a pattern consistent across all areas of the production process, indicating no clear variation by work type. Notably, 60% of workers indicated that there is no adequate rest period between their arrival at the mining site, often in remote locations, and the start of their shift. Among workers who reported experiencing microsleeps, 69% had no rest period upon arrival at the site, and 42% reported lacking the authority to take breaks during the workday. These results emphasise the urgent need to review rest and break arrangements to safeguard worker safety.

2%

3.1.5 Ergonomic Risks

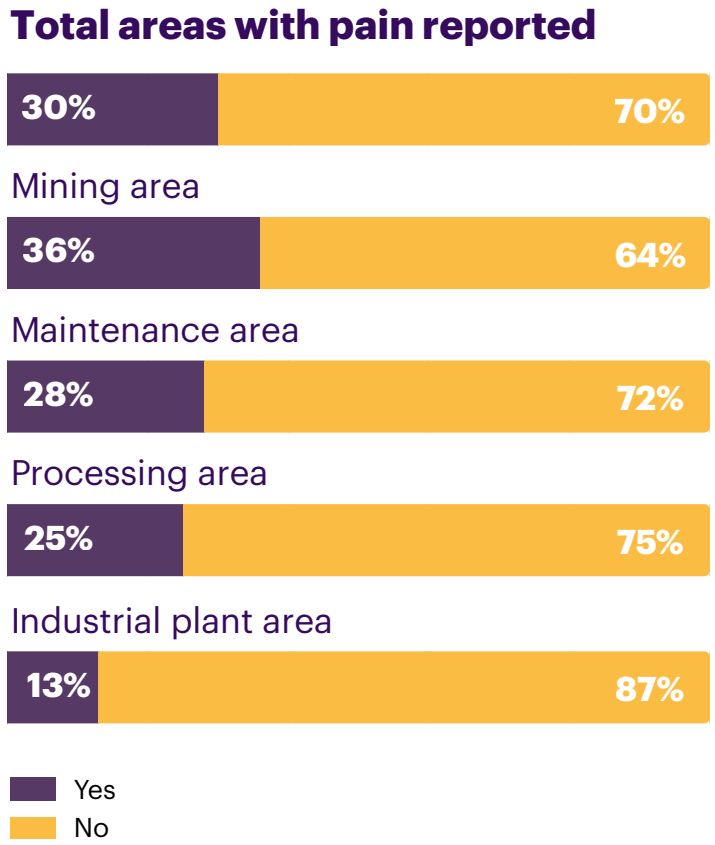
Ergonomic discomfort (from poor posture, repetitive movements, or improper handling of equipment), injuries, and work-related musculoskeletal disorders (affecting muscles, bones, joints, or nerves) present significant health and safety risks in physically demanding occupations such as mining.

Nearly one-third of workers (30%) reported experiencing bodily pain or discomfort (Fig. 5). Among this group, we analysed the affected body parts, the frequency of complaints, and the types of jobs in which these issues occurred.

The lower back was the most frequently reported area of discomfort (74%), followed by the upper back (34%). A further 27% of workers reported pain in the neck and lower limbs. Although most respondents experienced these issues only occasionally, among the 20% who reported upper-limb pain, 42% stated that it occurred daily.

When examining the different work areas, workers in the mining area report the highest levels of pain and discomfort (36%). This points to a need for targeted interventions that address the particular physical demands and risks associated with mining work.

Figure 5. Workers that report pain



2% 2%

3.2 Impact on Worker's Health

3.2.1 Illnesses

Part of the health and safety assessment focused on diagnosed illnesses among workers.

One in five workers (21%) reported having been diagnosed with an illness. Among these, the most prevalent categories were hearing disorders (54%) and dysergonomic (non-ergonomic) disorders (51%), which are illnesses linked to repetitive postures and movements, followed by metabolic disorders (such as diabetes and thyroid conditions) (14%). Table 3 provides an overview of the reported illnesses.

When examining the different stages of the production process, there are no significant differences in the proportion of workers reporting illnesses, with around 21% affected in each area.

Reported Illnesses	%
Hearing disorders	54%
Dysergonomic diseases (postures and repetitive movements)	51%
Metabolic diseases (such as diabetes and thyroid conditions)	14%
Cardiovascular diseases	11%
Respiratory diseases	8%
Psychological/psychiatric/psychosocial diseases	5%
Kidney diseases	4%
Diseases caused by exposure to high temperatures	1%

Table 3. Reported illnesses

This suggests that overall health risks are broadly similar across the production chain and are not concentrated in any single stage. However, differences emerge when examining the types of illnesses reported. As shown in Figure 6, maintenance workers report hearing disorders more frequently than those in the mining area, while other areas have insufficient sample sizes for comparison. This pattern aligns with earlier findings of higher noise exposure among maintenance workers. Together, these results underscore the importance of tailoring health and safety measures to the specific risks present in each part of the production process.

Figure 6. Hearing disorders

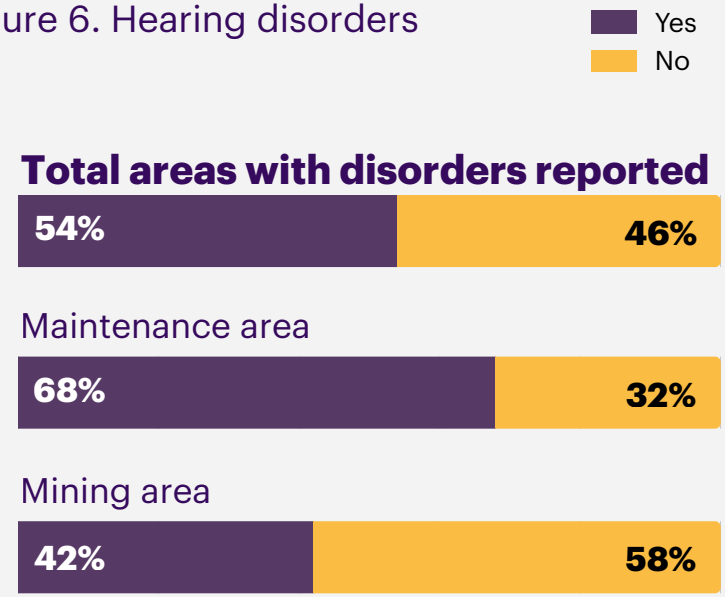
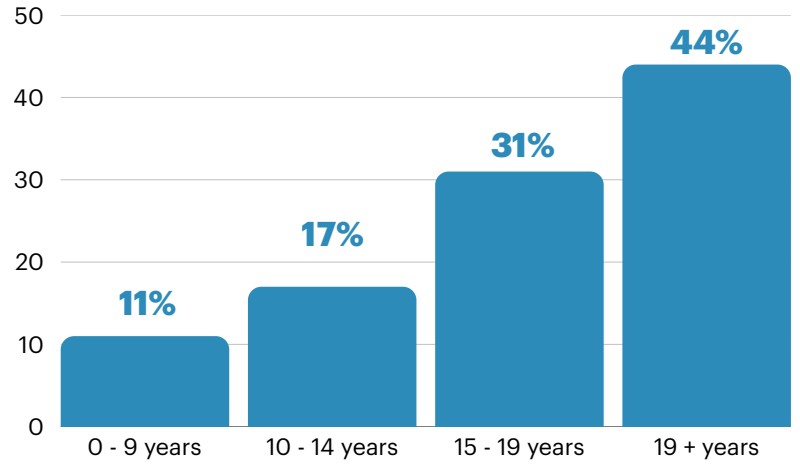


Figure 7. Proportion of Workers Reporting an Illness



Examining illnesses by length of employment reveals a clear trend: the longer a worker has been employed, the more likely they are to report health problems (Figure 7).

For example, around 11% of workers with less than ten years' experience reported an illness, compared to over 44% of those with more than 19 years on the job.

The same trend is observed within a single age group, suggesting that prolonged exposure to workplace conditions, rather than age alone, may increase the risk of health problems.

3.2.2 Occupational Accidents

During the first half of 2025, 47% of workers reported awareness of minor accidents, and 39% reported awareness of moderate accidents. **Moreover, 7% of workers reported that they were subject to an accident themselves**.

There were also reports of incapacitating and fatal accidents: among the surveyed mines, one fatal accident occurred in April 2025, and one incapacitating accident has been reported so far this year.

21% of respondents indicated that workplace accidents were linked to poor management of Personal Protective Equipment (PPE). Among these, the main causes were inadequate PPE (38%), poor-quality PPE (27%), and 8% of workers reported either lacking PPE, not knowing how to use it, or having insufficient supervision.

Finally, 40% of participants reported that they had not been consulted when it came to the company's accident investigations.

4. Occupational Health and Safety Management System (OHSMS)

This section examines risk management from the workers' perspective.

As outlined in the previous chapters, workers reported exposure to a range of hazards, including dust and particulate matter, noise, sunlight, gases and smoke, chemical risks, fatigue, pain and discomfort, injuries, and the risk of disease and accidents. The analysis below presents data on how these risks are managed in the workplace.

The findings indicate that some risk management is in place; however, it is unclear whether these measures are sufficient, given the level of exposure and the number of reported accidents and illnesses.

4.1 Risks Management Systems

Most workers reported that their company provided information on the health effects associated with various exposures and risks.

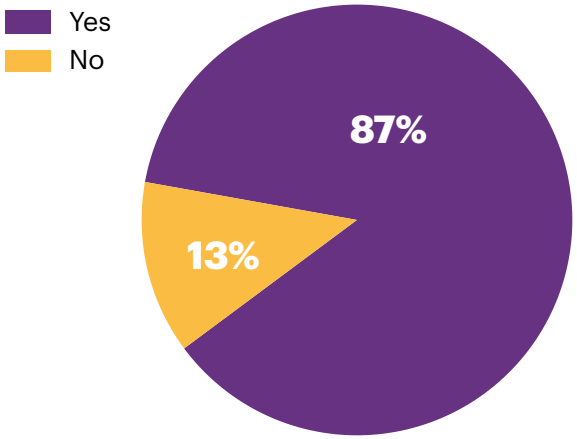
Specifically, eight out of ten workers exposed to dust, gases, smoke, and temperature variations had been informed of the associated risks, nine out of ten had received information on the effects of noise, and seven out of ten on the effects of sunlight exposure. These findings suggest that companies have made efforts to communicate preventive measures effectively.

A large majority of workers (95%) reported that their company has an Occupational Health and Safety Management System (OHSMS) in place, and 79% believe the system is properly implemented. However, 21% of respondents indicated that they were either unaware of the OHSMS or believed it does not exist in their workplace.

This gap suggests that some workers may not be fully informed about a system that should be familiar to everyone involved in mining activities.

Regarding OHS training, 89% of workers reported receiving instruction on health and safety topics. Of these workers, 64% received training in person, 32% participated in a combined format incorporating both in-person and virtual sessions, and the remaining 4% received training exclusively online. These findings demonstrate consistent efforts to provide safety education; however, additional measures may be required to ensure that all workers are fully informed about and engaged with existing safety systems. Overall, 87% of workers rated the training they received as effective, whereas 13% considered it ineffective (Fig. 8).

Figure 8. Effectiveness of training

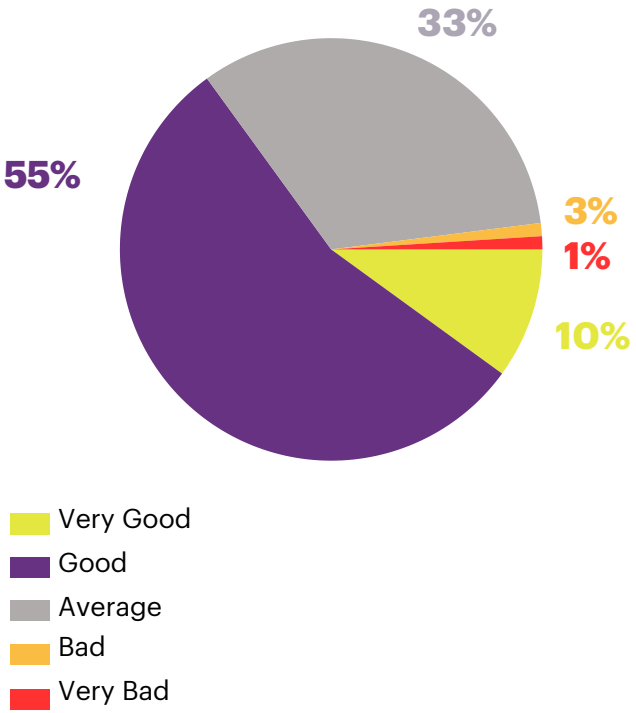


A significant proportion of workers (41%) reported receiving training during working hours while performing their regular tasks. This approach raises concerns regarding the extent to which workers can devote attention to the training and whether the information is fully absorbed and applied in practice.

The management of mechanical risks is a critical component of workplace safety. Mechanical risks arise from interactions between workers and machinery, which in mining can be significant due to the large size and number of machines, tools, and industrial equipment in use. Potential hazards include collisions, crushing, cutting, entanglement, and flying particles. Proper maintenance and safe operational procedures are essential to ensure worker safety.

The majority of workers surveyed responded positively regarding machinery maintenance, with 84% indicating that maintenance activities are carried out. The assessments of this maintenance were more varied: 55% rated it as good, 33% as average, and 10% as very good. Although a small proportion, it is noteworthy — and concerning — that 2% reported machinery maintenance as bad or very bad, particularly given the heavy-duty nature of the equipment used in this type of mining (Fig. 9).

Figure 9. Maintenance of Machinery



4.2 Safety Resources

Another key aspect of managing OHS risks is the provision of appropriate personal protective equipment (PPE).

92% of participating workers reported having PPE available; however, 44% indicated that the equipment was not in good condition.

Many workers also reported the absence of suitable sizes.

Looking at the results by gender, 10% of male respondents said their personal protective equipment didn't fit properly.

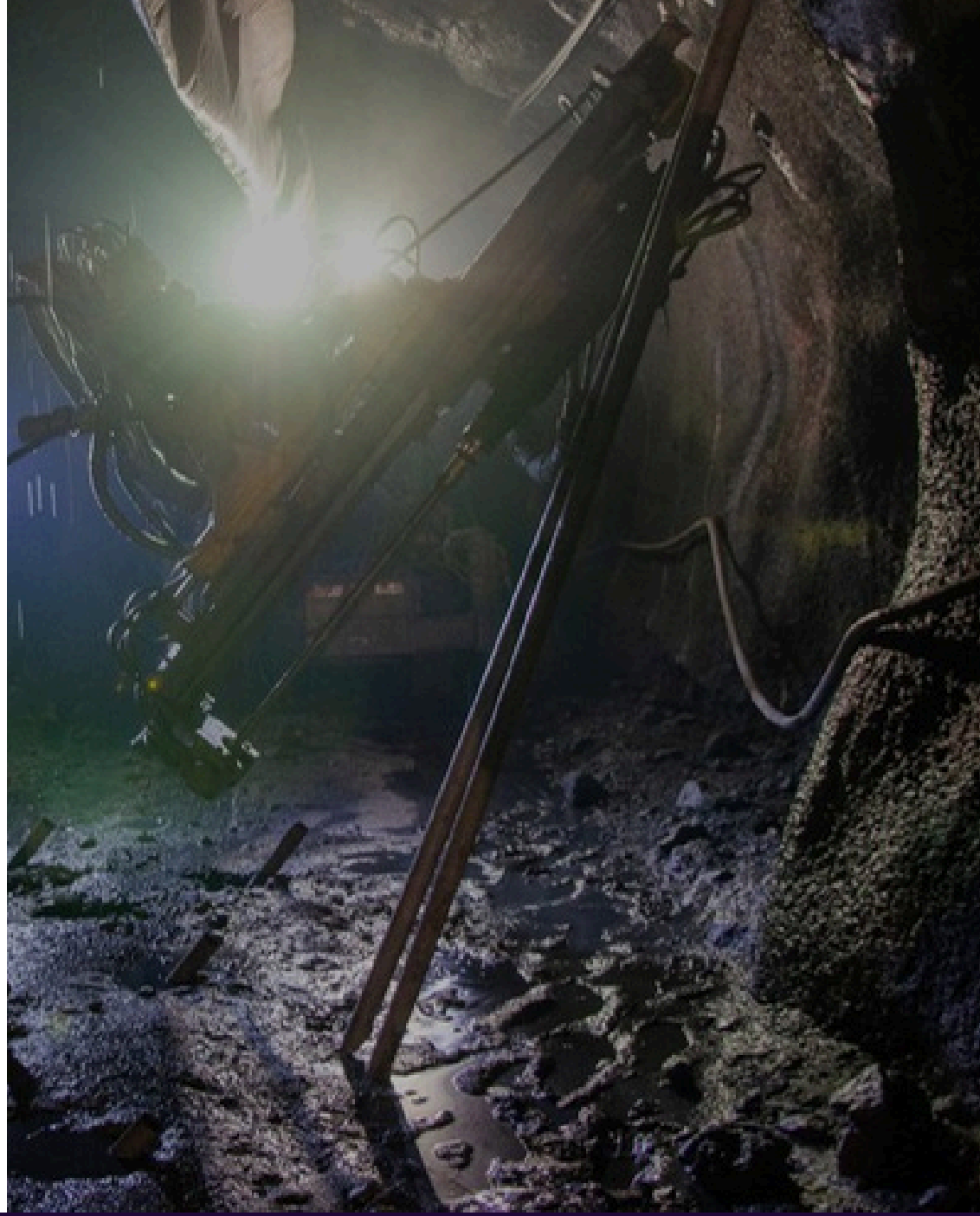
Among women, despite the much smaller sample size, 30% reported the same problem.

To help manage the risk of excessive fatigue, some mines have introduced anti-fatigue devices, such as infrared monitoring cameras or wristbands that sound an alarm when a worker shows physical signs of sleepiness or fatigue. Among those surveyed, 47% reported using this type of equipment.

Workers were also asked how using this equipment affects the work environment. Views were split between benefits and concerns. The most common response was ‘it affects my privacy’ (37%), followed by ‘it helps me stay alert’ (31%). Other responses included ‘it increases supervision’ (14%) and ‘it improves my productivity’ (9%).

Overall, while many workers recognise the benefits in terms of alertness and safety, these sit alongside concerns about privacy and increased monitoring.

Staying hydrated is crucial, especially in physically demanding jobs like mining, where workers face strenuous labour in challenging conditions. Despite this, a significant portion of respondents (43%) **stated that they only drink water once or twice a day during work hours. Considering that shifts are on average 12 hours long, this frequency is low**. Moreover, 86% of workers reported consuming less than three litres of water per day, a level that could increase the risk of dehydration.



5. Voices from the Frontline: Enhancing Worker Conditions

This chapter aims to provide a better understanding of workers' perspectives to improve their health and safety. It is important to assess the current situation, identify the key challenges faced by workers and their organisations, and highlight areas where progress can be made.

Real improvements in health and safety can only be achieved if workers and their organisations have a genuine seat at the table to voice their concerns.

Effective OHS management is grounded in workers' experience and in measures that originate from the workplace itself.

This chapter presents findings on social dialogue, unions and anti-union practices, collective agreements, worker consultations, workplace harassment, workers' understanding of their contractual rights, and their wages.

While some mechanisms exist in practice, workers may struggle to express their concerns or translate them into tangible progress.

5.1 Social Dialogue

Social dialogue is the process of negotiation and discussion between representatives of employers, workers and, in some cases, governments.

Its goal is to foster collaboration in creating policies and reaching agreements. Social dialogue is crucial for maintaining good workplace relationships and ensuring that human rights and fair practices are respected throughout the supply chain.

Most respondents (79%) reported that there are spaces where complaints and conflicts can be discussed, and 92% said they can access them. However, considerably fewer workers (45%) reported that there are spaces for dialogue that go beyond merely resolving conflicts.

Among those who confirmed the existence of such platforms, most identified joint committees — comprising representatives of both workers and employers, usually organised around specific topics, themes, or tasks — as the main form of social dialogue. These were followed by joint commissions on health and safety, while regular meetings discussing the company's overall situation were mentioned least often.

Nonetheless, 82% of workers with access to dialogue spaces indicated that they have not (yet) used them. Among those who have, 52% said they were unaware of any changes or outcomes from these mechanisms, while 21% reported that the situation tended to worsen.

These findings suggest that, although such forums exist, their effectiveness is seen as limited, and follow-up processes may be absent or insufficiently communicated to workers.

Although social dialogue mechanisms are in place, they remain underused. Among those who have used them, many reported little or no improvement, and over a fifth of respondents indicated that conditions had worsened. This underscores the need for genuine worker representation.

5.2 Freedom of Association and Union Action

Realising the full potential of freedom of association requires ongoing efforts to remove barriers, prevent harassment, and ensure that all workers can participate in union activities without risk. Strengthening these mechanisms allows companies and stakeholders to promote a safer, fairer, and more sustainable labour environment.

The findings from the Fair Work Monitor highlight a dual reality: while union involvement enhances the capacity to address risks, protect rights, and promote equitable labour practices, structural and cultural barriers remain.

The survey first explored the relationship between workers and companies. Among participants, 54% rated this relationship as 'average', 27% as 'good', 4% as 'very good', and 15% as 'poor' or 'very poor'. Nearly half of respondents (45%) reported experiencing anti-union actions, while 30% were unsure whether such actions occurred. Those who reported experiencing anti-union actions could indicate which types had taken place, with multiple responses allowed.

The most commonly reported actions were discouraging workers from joining the union (56%), withholding promotions or career advancement for union members (34%), and providing benefits exclusively to non-unionised workers (34%). Table 4 summarises the total anti-union actions identified. Other reported actions included denial of union leave, prohibition from entering the mines, and wage reductions.

Reported anti-union actions	%
Discouraging workers from joining the union	56%
Union members are not promoted	34%
Grants exclusive benefits to non-union members	34%
Union members are dismissed	29%
Facing legal proceedings at the company	22%
Union members are relocated	18%
Threats	17%

Table 4. Reported anti-union actions

Alarmingly, **58% of respondents who experienced workplace harassment linked it directly to their union membership**.

These findings demonstrate that exercising the right to organise and participate in union activities can still carry risks, underscoring the ongoing challenges in fully realising freedom of association. Ensuring that trade unions can operate safely and effectively requires addressing these barriers.

5.3 Collective Agreements

A Collective Agreement, negotiated between the employer and workers' unions, sets out the terms and conditions of employment for a group of workers. Participants in the monitoring were asked about the existence and current validity of such agreements.

Almost all respondents (96%) confirmed that a Collective Agreement is currently in force, and 84% reported being able to view or consult it. However, 12% either did not know or did not understand its contents, while 22% indicated that the agreement is not being complied with.

These respondents also indicated which aspects of the Collective Agreement were not being complied with.

The areas with the highest levels of non-compliance were salary increases (90%), the granting of union leave (82%), and the payment of agreed bonuses or allowances (77%). In addition, 67% reported non-compliance with benefits negotiated with the union.

Despite being legally binding, Collective Agreements are only effective if workers understand their contents and can exercise their rights.

Unions can play a vital role in the workplace by providing training to workers, offering guidance and support in exercising their rights, and actively advocating for employers' compliance with Collective Agreements.

By doing so, unions help ensure that workers are informed, empowered, and protected, contributing to fairer and more transparent labour practices.

2% 2%

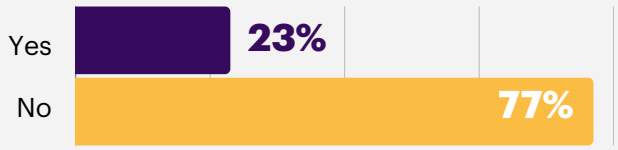
5.4 Worker Consultations

Significant changes in working conditions, such as new protocols, company policies or work schedules, are more likely to succeed when they have broad support, including from workers. This underscores the importance of worker consultation during decision-making.

With regard to consultation on important labour measures, 77% of participants indicated they are not consulted by the company before key decisions are made (Fig. 10). Of the 23% who said they are consulted, only 60% reported that workers' views are reflected in the company's final decisions.

These findings suggest that worker consultation must be strengthened, as meaningful engagement with employees is essential for the success of workplace policies.

Figure 10. Employee consultation during key company decisions



5.5 Workplace Harassment

Workplace harassment emerged as a significant concern among respondents. Nearly a quarter of workers (24%) reported experiencing some form of harassment at work. Among those affected, the most frequently cited causes related to hierarchical relationships and union involvement: 66% identified 'not being liked by their immediate boss' as the main reason, while 58% cited 'belonging to a trade union.' **As multiple responses were allowed, these percentages may overlap and exceed 100%, reflecting that workers often perceive several concurrent causes of the harassment they experience**.

We also examined workers' perceptions of their ability to raise concerns at work, including reporting occupational illnesses without fear of reprisal. While many reported having channels to voice problems, the findings reveal persistent barriers.

Regarding workplace openness, nearly half of surveyed workers 'agreed' (42%) or 'completely agreed' (7%) that they can report an illness without fear of reprisals. However, some noted concerns or barriers, with 16% 'disagreeing' and 2% 'completely disagreeing'. Around a third of respondents remained neutral.

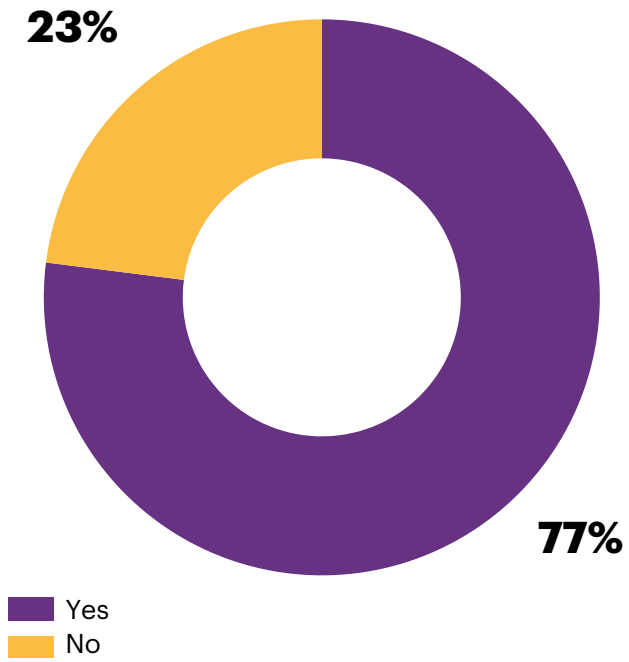
5.6 Worker Contracts and Comprehension

Providing workers with contracts that are clear and accessible is fundamental. Workers can only engage effectively in negotiations and seek remedies for safety risks when their rights and entitlements are explicitly stated and easy to understand. This section presents key results on this issue and highlights where improvements are needed.

Of the surveyed participants, 85% stated they had contracts, the vast majority of which were written (only 3% were verbal). Among these contracted employees, 99% held permanent contracts, suggesting a relatively stable employment relationship. **Despite this, significant gaps remain. Around 23% of workers reported not understanding their contracts, and nearly half said they do not have access to a copy (Fig. 11)**. Among those with contracts, 55% confirmed receiving a copy, 38% reported not having a copy despite it being written, and 7% were unsure what happened to their copy.

This lack of access and awareness hinders workers' ability to fully understand and exercise their rights.

Figure 11. Comprehension of Employment Contract terms



6. Union Contextualisation

During presentations of our findings to union representatives, discussions provided valuable insights that help interpret the survey results and highlight aspects not fully captured by the quantitative data.

Representatives reflected on workplace openness, noting that **many neutral responses may not indicate indifference but rather an underlying fear of reprisal**.

Training was another key topic: while companies meet legal requirements for mandatory training, logistical constraints often prevent workers from leaving their posts, and virtual or on-post training may be completed superficially, limiting its effectiveness.

Fatigue and long shifts were highlighted as major concerns. Extended work hours, combined with commuting and meal breaks, leave limited time for rest or family, contributing to fatigue and increasing the risk of microsleeps and other safety hazards. Many workers also spend entire shifts in largely sedentary roles, with limited access to healthy meals, which are often high in sugar and low in nutritional value. **Over time, these factors can contribute to conditions such as obesity and diabetes, which may reasonably be considered occupational health risks**.

Finally, representatives raised concerns regarding '*suspensión perfecta*', under which workers may be placed on temporary leave without pay or benefits. While originally intended to manage health or performance issues, it is sometimes applied more broadly. Changes to regulations during the COVID-19 pandemic have increased flexibility, and representatives noted that companies may now use this measure widely. This practice poses serious risks to workers' rights and wellbeing, particularly for those with chronic or work-related health conditions.

Taken together, these insights provide essential context to the quantitative findings, offering a richer, more nuanced understanding of occupational health and safety risks. They also form an important basis for the recommendations and roadmap for improving OHS management presented on the following page.

7. Conclusions and Roadmap towards Improved OHS

The Fair Work Monitor indicates that OHS risks remain significant across Peru's copper mining sector, affecting workers at all stages of production. Workers face a variety of physical hazards, including dust, noise, sunlight, extreme temperatures, and risks associated with machinery. **Nearly all workers reported exposure to dust, with many describing the levels as 'high', 'very high', or 'extreme'**.

Noise is a particular concern for maintenance and industrial plant workers, with some exposed to levels that are uncomfortable or unsafe. Pain is also common, especially among mining workers, affecting the back, neck, and limbs, and is exacerbated by the repetitive and physically demanding nature of mining work.

Chemical and biological hazards are also present. Over a third of workers reported exposure to chemicals, including heavy metals, yet only a small proportion have been tested, leaving many uncertain about potential health risks. Fewer workers reported exposure to biological agents, mainly in processing and maintenance areas, emphasising the need for continued vigilance in these parts of the production process.

Fatigue and psychosocial risks further compound workplace hazards. Long hours, limited rest, and insufficient sleep contribute to stress and microsleeps during the workday, reported by over a third of workers. Remote work locations and restricted opportunities to rest before shifts increase fatigue, raising the risk of accidents and affecting overall wellbeing.

Accidents and illnesses continue to be a serious concern. Nearly half of workers reported awareness of minor or moderate accidents in the first half of 2025 at their mine, with additional reports of incapacitating and fatal accidents.

Around a fifth of workers reported being diagnosed with an illness, with longer job tenure associated with a higher likelihood of health problems, highlighting the cumulative impact of prolonged exposure to workplace hazards.

Although most companies have an Occupational Health and Safety Management System (OHSMS), training, and protective equipment in place, these measures do not fully protect workers from all types of risks. This may be because they do not always translate effectively to the worker level or to the realities of daily work.

Workers report problems with poorly fitting or low-quality protective gear, training that is not fully applied, limited chemical testing, and inadequate measures to address ergonomic and fatigue risks.

These findings make clear that technical measures alone are insufficient. Effective OHS management requires targeted interventions tailored to the specific risks in each production area, combined with meaningful worker participation. This approach ensures improvements are practical and lasting, as workers can identify problems or risks in implementation.

The ability to manage OHS risks effectively is closely linked to worker representation and participation. Although social dialogue platforms exist, structural and cultural barriers often limit meaningful engagement. Anti-union actions, harassment related to union membership, and limited consultation hinder workers from raising concerns or influencing safety measures.

This demonstrates that **freedom of association is not only a fundamental right but also a critical enabler of effective OHS management**. Even well-designed technical measures cannot fully address risks without genuine worker involvement.

Addressing these challenges calls for a worker-driven, targeted approach. Companies should involve workers and unions directly in the design, monitoring, and evaluation of OHS measures. Risk mitigation must be tailored to the specific hazards of each production area, from mining and maintenance to processing and industrial plant operations.

Strategies need to adopt a holistic approach to health, encompassing physical, mental, and psychosocial well-being. Strengthening social dialogue structures is crucial to ensure that workers can safely raise concerns, influence decisions, and hold employers accountable.

Improvements in OHS also rely on collaboration across the supply chain.

Buyers, investors, and multisectoral platforms such as the Initiative for Responsible Mining Assurance (IRMA) and CopperMark play a vital role in promoting responsible practices. Incorporating worker-driven insights into supply chain due diligence helps ensure compliance with collective agreements, reinforces safety measures, and addresses systemic risks, fostering a transparent, accountable, and sustainable mineral chain.

In conclusion, OHS risk management must be specific and tailored to each particular risk and its context. Involving workers in the OHS management process enables the implementation of effective, practical, and lasting solutions.

To achieve this, workers need to be empowered through freedom of association, social dialogue, and collective action, alongside targeted interventions and collaboration across the supply chain.

It is only through this integrated approach that Peru's copper mining sector can build a safer, fairer, and more sustainable working environment for all workers.

Annex 1: Glossary

CSDDD
Corporate Responsibility and Due Diligence Directive

HRDD
Human Rights and Due Diligence

ILO
International Labour Organisation

IRMA
Initiative for Responsible Mining Assurance

OECD
Organisation for Economic Cooperation and Development

OHS
Occupational Health and Safety

OHSMS
Occupational Health and Safety Management System

PPE
Personal Protective Equipment

RDS
Respondent-Driven Sampling

Annex 2: Characteristics of Participants

CATEGORY	TYPE OF WORKERS	PERCENTAGE IN SAMPLE
All Workers		100% (388)
Gender	Male	97%
	Female	3%
Area of Work	Mining	43%
	Maintenance	28%
	Processing	10%
	Administrative / Services	8%
	Industrial Plant	8%
	Related Areas	2%
	Other Areas	1%
Education	Technical (Finished)	57%
	Bachelor (Finished)	17%
	Middle School	12%
	Technical (Unfinished)	8%
	Bachelor (Unfinished)	6%
Ethnic Group	No Ethnic Group	86%
	Mixed	12%
	Indigenous	2%

Annex 3: References

- Comisión Chilena del Cobre (COCHILCO). (n.d.). *Base de datos estadísticos del cobre y la minería* [Database]. Retrieved August, 2025, from https://www.cochilco.cl/web/

- Heckathorn, D.D. (1997). Respondent-Driven Sampling: A New Approach to the Study of Hidden Populations. *Social Problems, 44*, (2), 174–199. https://doi.org/10.2307/3096941

- International Labour Organization. (2015). La minería: un trabajo peligroso. Retrieved from https://www.ilo.org/es/resource/la-mineria-un-trabajo-peligroso

- Mayo Clinic. (2025, February 1). How many hours of sleep are enough for good health? Retrieved from https://www.mayoclinic.org/healthy-lifestyle/adult-health/expert-answers/how-many-hours-of-sleep-are-enough/faq-20057898

- Mullo Guaminga, H. S. (2021). Contributions to non-probabilistic surveys and web surveys [Doctoral dissertation, University of Granada]. Doctoral Program in Statistics and Applied Mathematics, University of Granada, Granada, Spain.

- Quiroz, D., Quiceno Mesa, M. P., & Ospina Salinas, E. (2023a). Riesgos de seguridad y salud en el trabajo: La situación de los trabajadores mineros directos y tercerizados en Bolivia, Colombia y Perú. Amsterdam, Netherlands: Profundo. https://www.cnvinternationaal.nl/_Resources/Persistent/a/5/3/a/a53a5c94f16a7a8f3cc2d4f536d9e38cc9347654/CNVI-0375%20Profundo%20OSH%20risks%20mining%20SPANISH%20final.pdf

- Quiroz, D., & Quiceno-Mesa, M. P. (2023b). Observatorio de derechos laborales: Primer informe anual para el sector latinoamericano de la minería. Amsterdam, Netherlands: CNV Internationaal and Profundo. https://profundo.nl/download/2022-063-observatorio-del-trabajo-justo-primire-informe-anual-para-el-sector-latinoamericana-de-la-mineria-profundo-20231009

- World Health Organization. (1948). Constitution of the World Health Organization (48th ed., 2014). Microsoft Word: Basic Documents – 48th ed. without alphabetical index (Spanish version).docx.

Authors: María Paula Quiceno, Michiel Bosma, Myrthe Peek
Data Analysis and Interpretation: Juan Camilo Garzón Rincón, María Paula Quiceno, Michiel Bosma
Coordination: Mariana Sanches-Freriks, Myrthe Peek and Maurice van Beers
Edited by: Mariana Sanches-Freriks and Laura Ocampo
Graphic Design: Gabriela Ramírez
Photography: Laura Ocampo, Juan Marín and Shutterstock

Who we are and what we do

Everyone deserves safe working conditions and a living wage — whether on a farm in Senegal, a mine in Peru, or a textile factory in Cambodia. Rooted in CNV, the Netherlands' second-largest trade union, our commitment to a just society where everyone is treated fairly, doesn't stop at the border. CNV Internationaal has been championing fair work worldwide since 1967. We train local unions, promote inclusive agreements, and collect worker data through our Fair Work Monitor — empowering unions for change. We work with Dutch and global companies to improve labour conditions in global supply chains, both from our office and on the ground.
Our new Fair Impact Programma offers tailored support for responsible business practices.

CNV Internationaal
Postbus 2475, 3500 GL
Utrecht Tiberdreef 4,
3561 GG Utrecht
The Netherlands

www.cnvinternationaal.nl/en

www.cnv.nl/fairworkmonitor

cnvinternationaal

cnvinternationaal

CNVI-0492