



Harmful Impacts of Mining

when extraction harms people, environments and economies

English version

 Responsible Mining Foundation

About RMF

The Responsible Mining Foundation (RMF) is an independent research organisation that encourages continuous improvement in responsible extractive value chains, by developing tools and frameworks, sharing public interest research results and data, and enabling informed and constructive engagement between companies and other stakeholders.

The Foundation supports the principle that responsible extractive value chains should benefit the economies, improve the lives of peoples and respect the environments of producing countries, while also benefiting companies in a fair and viable way.

The Foundation's work and research reflect what society at large can reasonably expect from extractive sector companies on economic, environmental, social and governance matters.

As an independent foundation, RMF does not accept funding or other contributions from the extractive industry.

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Table of Contents

Executive summary	4
Introduction	5
The bottom line: prevention needs to be normalised	9
Ten key observations	11
Recommendations	14
Overall results in charts	16
Harmful impacts: examples and context	19
Seeking remedy: examples and context	37
Companies' efforts to prevent harm and report harmful impacts	41
Annex 1 Methodology	47
Annex 2 Endnotes	50

Executive summary

Minerals and metals play a central role in the global economy and mining is an important source of economic development in many countries. However, the harmful effects of mining remain a challenge for society to acknowledge and address.

This report presents the results of a recent study by the Responsible Mining Foundation on harmful economic, environmental, social and governance (EESG) impacts associated with a sample of 38 of the world's largest mining companies. These companies together account for approximately 28 per cent of global mining production, collectively covering 18 home countries, 55 producing countries and about 1,000 mining sites worldwide. The study shows the range of harmful impacts that have been recently reported for, or by, this sample of companies as an illustration of the negative impacts of mining activities worldwide. As such, the study offers a reality check that underlines the urgent need to ensure responsible mining practices – and particularly the prevention of harm – become the norm.

The reported incidents identified in the study cover a wide range of issues, including impacts on workers, affected communities and Indigenous Peoples, human rights and land defenders, artisanal miners, and other stakeholders. Harmful impacts can also damage environments and economies with associated impacts on the wider populations of producing countries.

The global incidence of harmful impacts associated with the estimated 35,000 mining operations worldwide is likely to be on a scale far beyond that seen for the relatively small sample of large, well-resourced companies in the study. And many incidents go unnoticed, due to the lack of corporate reporting on harmful impacts and the limits on civic space in some countries that hinder independent monitoring and reporting by civil society and media.

The 'bottom-line' finding of the study is that the prevention of harmful impacts needs to be normalised and while lessons have already been learned on what needs to be done, courageous leadership will be required to act on these lessons and step up efforts to prevent harm. Companies' risk management systems need to be implemented much more consistently across their operations. Governments can establish and enforce regulatory frameworks that drive stronger action on preventing harmful impacts. And governments and companies can support civic space so that civil society and media can play their important role in monitoring and reporting harmful impacts and in reducing the power imbalances that leave victims too often unprotected and unable to access remedy.

The report provides examples of reported incidents and sets these within the wider industry context. Examples of good practices by companies are highlighted to support industry-wide learning. Recommendations are provided for mining companies regarding their internal management systems, their engagement with other stakeholders and their reporting practices.

While effective recycling processes and use of non-mined materials remain underdeveloped, the energy transition will increase demand for mined commodities. And as industrialisation and consumer expectations rise across the world, minerals and metals mining is set to continue and even increase for the foreseeable future. This brings with it the risk of increased incidence of harmful impacts on people, environments and economies.

It is more important than ever for the achievement of responsible mining, to acknowledge the harm that mining causes, and to raise awareness of the urgent need for mining companies and regulators to take stronger action to prevent such negative impacts and more actively support responsible mineral supply chains.

Introduction

Rationale

Minerals and metals play a central role in the global economy and mining is an important source of economic development in many countries. However, the harmful effects of mining remain a challenge for society to acknowledge and address.

Industry leaders' commitments to maximise the sector's contribution to sustainable development, as articulated in the Mining, Minerals and Sustainable Development (MMSD), have yet to be realised nearly two decades later.¹ Despite the efforts of some companies to establish robust systems to manage environmental, social and governance (ESG) risks, severe impacts are still all-too commonly seen around the world.

Companies, industry lobbyists and sympathetic media are eager to publicise the positive contributions of mining for society, and to promote mining and commodity trading companies as solutions providers for the energy transition and sustainable development. On the other hand, very few industry actors publicly acknowledge or report on the negative impacts associated with mining activities. This lack of corporate public reporting on harmful impacts has compounded the pre-existing trust deficit in the industry.

While effective recycling processes and use of non-mined materials remain underdeveloped, the energy transition will increase demand for mined commodities. And as industrialisation and consumer expectations rise across the world, minerals and metals mining is set to continue and even increase for the foreseeable future. This brings with it the risk of increased incidence of harmful impacts on people, environments and economies.

It is more important than ever to acknowledge the harm that mining causes, and to raise awareness of the urgent need for mining companies and regulators to take stronger action to prevent such negative impacts and more actively support responsible mineral supply chains.

Harmful impacts defined

The study covers harmful impacts caused, or contributed to, by the sample companies' mining-related activities, or impacts otherwise directly linked to the companies' presence, operations or business relationships. This includes harmful impacts related to acts of omission (i.e., by companies failing to take adequate action to prevent or mitigate harm) as well as acts of commission (i.e., by companies' mismanagement, poor decision-making or intentional acts that may be legal or illegal depending on the jurisdictions involved). The study also identifies cases relating to the provision of remedy for harm done, as well as evidence on corporate reporting of harmful impacts.

Those harmed can include workers, affected communities and Indigenous Peoples, human rights and land defenders, artisanal miners, and other stakeholders. Harmful impacts can also damage environments and economies with associated impacts on the wider populations of producing countries.

Scope of the study

The Responsible Mining Foundation (RMF) conducts regular evidence-based assessments of mining companies' policies and practices on economic, environmental, social and governance (EESG) issues. These assessments, including the biennial Responsible Mining Index (RMI) Reports, form the basis of RMF's work to encourage continuous improvement in responsible extractive value chains.²

In parallel, RMF has been conducting research on the harmful impacts of mining, to raise awareness of how mining activities can cause, or contribute to, serious consequences for local stakeholders and environments as well as wider problems related to failures in governance and financial integrity.ⁱ

This report presents the results of RMF's recent study on harmful economic, environmental, social and governance (EESG) impacts associated with a sample of 38 large-scale mining companies (i.e., those included in the RMI Report 2020). These companies together account for approximately 28 per cent of global mining production, collectively covering 18 home countries, 55 producing countries and about 1,000 mining sites worldwide.

The study is based on public domain data collected from a range of sources including, among others, media articles; reports by multilateral organisations, governments, research institutions, civil society groups, etc.; court records; databases such as the Business and Human Rights Resource Centre's website and the OECD database of cases brought to National Contact Points; and company reporting. Over 3,000 documents were sourced and scrutinised during the study. (See Annex 1 for more details on the methodology.)

The study covers reported incidents for which there is evidence of a direct connection with a company and for which there is a reasonable expectation of responsibility and accountability on the part of the

company. The study does not attempt to attribute or assess the culpability of the companies associated with the incidents identified. Rather, the study shows the range of impacts that have been publicly reported for, or by, this sample of companies over a two-year period (2019 and 2020), as an illustration of the negative impacts of mining activities worldwide. Where possible, this report includes updated information on new or ongoing cases in the first six months of 2021.

The study focuses on the most harmful impacts of mining and as such does not cover less harmful but potentially more commonplace impacts (such as those related to discrimination in recruitment and in professional development), continuously occurring impacts (such as greenhouse gas emissions or pollution from acid mine drainage and tailings leaching), or the long-term social and environmental problems from the many abandoned mine sites worldwide. These impacts, while important, are more difficult to capture in a study such as this, given that they are rarely reported as standalone incidents within a defined timeframe.

ⁱ See for example, RMF's, [Research Insights](#) on several topics, and a [2020 status update on Mining and the SDGs](#).

Types of harmful impacts identified in the study

The study covers a wide range of mining-related impacts, including, among others, the following types:

- Abuses by security forces
- Air pollution
- Attacks on human and land rights defenders
- Bribery and corruption
- Child labour and forced labour
- Community fatalities and serious injuries
- Community health problems
- Damage to local livelihoods
- Destruction of cultural heritage
- Financial misconduct
- Forced displacement
- Loss of access to water
- Loss of wildlife
- Occupational diseases
- Rape, sexual assault and harassment
- Soil pollution
- Violations of Indigenous Peoples' rights
- Water pollution
- Worker fatalities and serious injuries

Scale of the issue

The restrictions on civic space and media freedom in some regions of the world, and a lack of detailed reporting by many companies, mean that the study results summarised in this report represent only a partial picture of the harmful impacts associated with the sample of mining companies during the timeframe of the study. Many incidents of severe impacts will not have been reported in the public domain, particularly in some geographies.

Furthermore, the company sample used in the study covers some of the largest and best resourced mining companies in the world, most of which have human rights and ESG risk management systems in place. Given that the vast majority of the estimated 35,000 mining operations globally are owned by smaller companies without the same level of resources or same level of public scrutiny, the worldwide incidence of harmful impacts from mining is likely to be on a different scale from the levels shown in this report.³

What will you find in this report?

This report:

- presents examples of reported incidents and sets these within the wider industry context;
- reviews current corporate practices to prevent harm and report any harm done;
- provides examples of good practices to support industry-wide learning;
- highlights 'bottom line' findings and ten key observations drawn from the study results; and
- provides recommendations for companies to strengthen their prevention of harmful impacts.

For more information

An interactive document library accompanies this report and can be found at

www.responsibleminingfoundation.org/harmfulimpacts

The bottom line: prevention needs to be normalised

■ Prevention of harm is in everyone's interest

Harmful impacts of mining are by no means inevitable – responsible practices can help prevent or at least minimise the worst impacts. Many large mining companies have set in place risk management systems designed to prevent harmful impacts. And governments understand the positive impacts when regulatory environments ensure prevention. However in order to normalise the prevention of harm, corporate systems and government regulations need to be implemented on a far more consistent basis.

■ The industry knows what is needed for prevention

Lessons have been learned from major harmful impacts over the years. High profile disasters such as the catastrophic tailings dam breach in Brumadinho, Brazil or the destruction of the Juukan Gorge in Australia offer learnings on corporate operational and organisational systems. And in all companies, fatal accidents at mine sites have highlighted what could have been done to help prevent them in the first place. These lessons now need to be applied systematically and proactively.

■ Prevention of harm calls for courageous leadership

The prevention of harm needs to be acknowledged as a top priority by all companies operating in all jurisdictions, supported by compelling leadership and investment in effective systems managed by qualified knowledgeable staff. Governments and regulators should play their part by establishing preventive regulatory environments and ensuring civic space that enables independent monitoring and reporting by civil society, media and others.

Ten key observations

01 Harmful impacts happen everywhere

Incidents occur worldwide – they are by no means limited to jurisdictions with limited government oversight. Impacts such as water and air pollution, mine worker fatalities, and violation of Indigenous Peoples' rights happen in high-income countries as well as in low-income and middle-income countries. The reported incidents in the study cover over 30 producing countries including high-income mining countries such as Australia, Canada and the US.

02 Mine sites are the epicentres of harm

Communities and environments in mining areas are highly vulnerable to harmful impacts of mining company activities. Other than corporate issues such as tax fraud or bribery, practically all mining-related harm associated with companies' extractive activities arises at the local level. Those facing greatest exposure to harm often have huge challenges in trying to recover or obtain access to remedy. While risks of direct socio-economic and environmental damage are inevitably highest in mining areas, it is by no means inevitable that these risks will become realities. Lack of adequate corporate measures to prevent harm is by far the most common cause of the reported incidents identified in the study, beyond cases where harmful practices are permitted by law, intentional acts, or integrated into regular business procedures.

03 Risk management is inconsistently applied

Many of the companies involved in the reported incidents have established systems to avoid and manage risks such as bribery and corruption, human rights abuses, workplace fatalities, sexual assault and harassment, and environmental damage (see [page 41](#)). These corporate measures, while basic building blocks of responsible mining, are no guarantee that harmful impacts will be prevented, as incidents can occur when risk management systems are weak or not implemented systematically. This problem of inconsistent practices within companies' asset portfolios, already evidenced in other RMF research findings, is underlined by the widespread incidence of harmful impacts identified in this study.

04 Grievance mechanisms are limited and lack transparency

Most incidents of harm or unfair treatment should be covered by grievance mechanisms, leading to resolution or remedy. However, many mine sites show no evidence of having an operational grievance mechanism for communities and other external stakeholders (see [page 38](#)). Public information on the uptake and functioning of grievance mechanisms is important to build trust in these mechanisms and enable companies to improve their effectiveness. Yet very few companies disclose information, disaggregated to mine-site level, on the kinds of issues raised or the responsive actions taken (see [page 38](#)). Furthermore, grievance mechanisms have been implicated in deepening harm when not functionally independent of the company (see [page 39](#)).

05 Remedy is hard to access

Aside from compliance with any legal requirements, companies are expected to provide remedy if they cause or contribute to harmful impacts, or if they are directly linked to harmful impacts via their presence, operations or business relationships. This responsibility, clearly articulated in the UN Guiding Principles on Business and Human Rights, is too often ignored or even challenged by companies. Victims, their families and others seeking remedy can spend years fighting for justice. And for most, even with external support, legal action is simply not an option. Recent court rulings and settlements have set important precedents for corporate liability yet this judicial route to remedy is by no means widely accessible (see [page 40](#)).

06 Regulatory frameworks may offer little protection

Legislation and regulations in home and producing countries are essential, but often inadequate to prevent harmful impacts of mining or to ensure remedy where harm is done. Weak regulatory frameworks can sanction harmful incidents as legitimate activities and prevent companies from being held to account, while gaps in legislation can fail to protect populations from harm. This has been evidenced in the study. In Australia's Juukan Gorge disaster, weak heritage laws permitted the blasting of two Aboriginal sites of exceptional significance (see [page 36](#)). Legislation in several countries authorises the disposal of mine tailings in rivers, putting these ecosystems at risk of serious damage (see [page 36](#)). And some of the most important mining countries in the world have still not ratified the 1995 ILO Convention on Safety and Health in Mines – an international instrument that seeks to address the most harmful impacts on mine workers (see [page 27](#)).

07 Some 'business as usual' practices normalise potential harm

Harmful impacts can result from common business practices or cultural corporate behaviours that are considered normal and not reviewed in line with emerging international norms on responsible business practice. Financial strategies such as tax optimisation or investment negotiations can unfairly disadvantage producing country economies. Corporate lobbying to block climate action weakens environmental regulations and risks undermining global efforts to transition to a low-carbon economy. And the fact that many companies report only aggregate figures for fines incurred for breaches of environmental regulations begs the question whether companies consider these as simply a cost of doing business, rather than attending to corrective action. Other impacts, such as sexual assault and sexual harassment, are effectively normalised by widespread failure by companies to recognise the problems and take preventive action (see [page 29](#)).

08 Cumulative impacts are overlooked

Harmful impacts tend to be reported only if they stem from crises or one-off events. Insidious impacts that build up over time can be equally damaging but rarely hit the headlines. These include for example the onset of debilitating respiratory diseases among mineworkers, gradual pollution from acid mine drainage and gradual land subsidence. Likewise, impacts that aggregate from several mining operations in one area are rarely reported. Cumulative impacts often persist beyond closure, transfer of ownership or abandonment of the mine sites involved, making remedy even harder to access and raising the risk of externalising the cost to society at large. The toxic legacy of the abandoned Panguna mine in Bougainville, PNG is a case in point (see [page 39](#)).

09 Companies rarely report harmful impacts

Mining companies tend to report very selectively on ESG issues, focusing on the management systems they have put in place and the positive contributions they have made. Aside from the few good practices highlighted in this report, company reporting generally excludes mention of any negative impacts beyond providing data on fatalities and in a few cases listing major environmental incidents and the fines incurred. Companies that do publicly acknowledge harmful impacts rarely provide details such as the name of the mine site or even the country where the incidents occurred or what remedial action was taken to prevent recurrence (see [page 43](#)).

10 Independent monitoring and reporting matter

In the absence of civic space and independent media in producing countries, the harmful impacts of mining can remain unchallenged, and the voices of victims can go unheard. Without independent reports of the harm caused by mining, public awareness of these impacts remains very limited. These scenarios play out in some geographies and civic space continues to shrink globally, exacerbated by government responses to security threats and the Covid-19 pandemic (see [page 35](#)). The increasing threats to human rights defenders further suppress public reporting of harmful incidents.

Recommendations

Although governments, regulators and multilateral institutions can play an important part in creating frameworks supportive of prevention and remedy, the following recommendations and opportunities emerge from the study with respect to mining companies and the normalisation of prevention of harm:

Internal company systems

- Address the two weakest elements of the Plan-Do-Check-Act management framework. While commitments and systems may be in place to cover the first two elements, there is still a marked lack of efforts to review the effectiveness of systems and take action to continuously improve performance.
- Assess risks on the basis of potential harmful impacts to others and the environment rather than only as compliance issues and risk to the business.
- Ensure that ESG risk management systems are implemented consistently across all operations and are addressing all salient risks relevant to specific contexts and jurisdictions.
- Embed human rights due diligence within corporate management systems and culture, to ensure comprehensive identification and assessment of human rights risks posed by the activities of the company itself, any joint venture operations, and other business partners.
- Interrogate and resolve potential omissions where harm may be caused by a lack of action or lack of controls by the company itself or by its business partners.
- Address the risk of cumulative impacts that build up over time or aggregate impacts where several mine sites operate in the same area.
- Consider where regular and legal business practices may also be leading to harm; proactively address these risks in all jurisdictions.
- Adopt a mitigation hierarchy approach that prioritises avoidance of harm (prevention) over compensation for harm done (remedy), especially in situations such as resettlement where the risk of negative impacts is high.
- Strengthen action on access to remedy, the third pillar of the UN Guiding Principles on Business and Human Rights, by ensuring the independence, accessibility, functioning and transparency of operational-grievance mechanisms and by ensuring non-retaliation against complainants.
- Track environmental fines to ensure that corrective action is taken as necessary and incidents are not repeated.
- Elevate to Board level accountability and responsibility for prevention of harmful impacts and monitoring of harm done and measures taken as a result.

Outward-facing company engagement

- Engage meaningfully with mining-affected communities and other affected stakeholders throughout the life of mining operations to hear and act on their concerns about real or potential harmful impacts.
- Respect the right of others to a culturally and politically distinct worldview.
- Respect the right of affected peoples to free prior and informed consent throughout the mine lifecycle.
- Collaboratively assess safety risks and plan mitigation measures with communities and workers.
- Respond timeously and meaningfully to known and reported harmful impacts.
- Respond proactively to grievances gathered through grievance mechanisms, and actively monitor the effectiveness of worker and community grievance mechanisms.
- Align security management, both for company in-house security and contracted private security services, with the Voluntary Principles on Security and Human Rights and the International Code of Conduct for Private Security Service Providers.
- Level the playing field by promoting the normalisation of leading practice in preventive regulation and enforcement in all states' jurisdictions.
- Encourage the implementation of relevant ILO conventions in all states' jurisdictions to protect the rights of workers.
- Endorse the importance of civic space and support the practice of independent monitoring and reporting to ensure a level playing field for companies in all jurisdictions and to balance the complementary roles played by companies, governments and civil society.

Company reporting

- Proactively report on economic, environmental, social and governance risk identification and management, harmful incidents, and corrective actions taken to avoid repeat occurrences.
- Make disclosures meaningful by providing information on harmful impacts in line with the Open Data Principles, including disaggregation to mine-site-level, clarity on the metrics used, and provision of absolute numbers rather than rates.
- Take special measures to provide information on harmful impacts and corrective action in accessible, understandable and useful formats for local affected communities.

Overall results in charts

The results shown in the charts below relate to harmful impacts associated with the sample of companies in the study over the two-year assessment period (2019 and 2020), with some additional updates to take into account new information from the first half of 2021. These results are necessarily limited to incidents that have reached media

or been publicly reported by companies or other stakeholder groups. They do not reflect the multitude of other incidents that may have been, for example, channelled through grievance mechanisms or otherwise recorded by companies but not publicly reported.

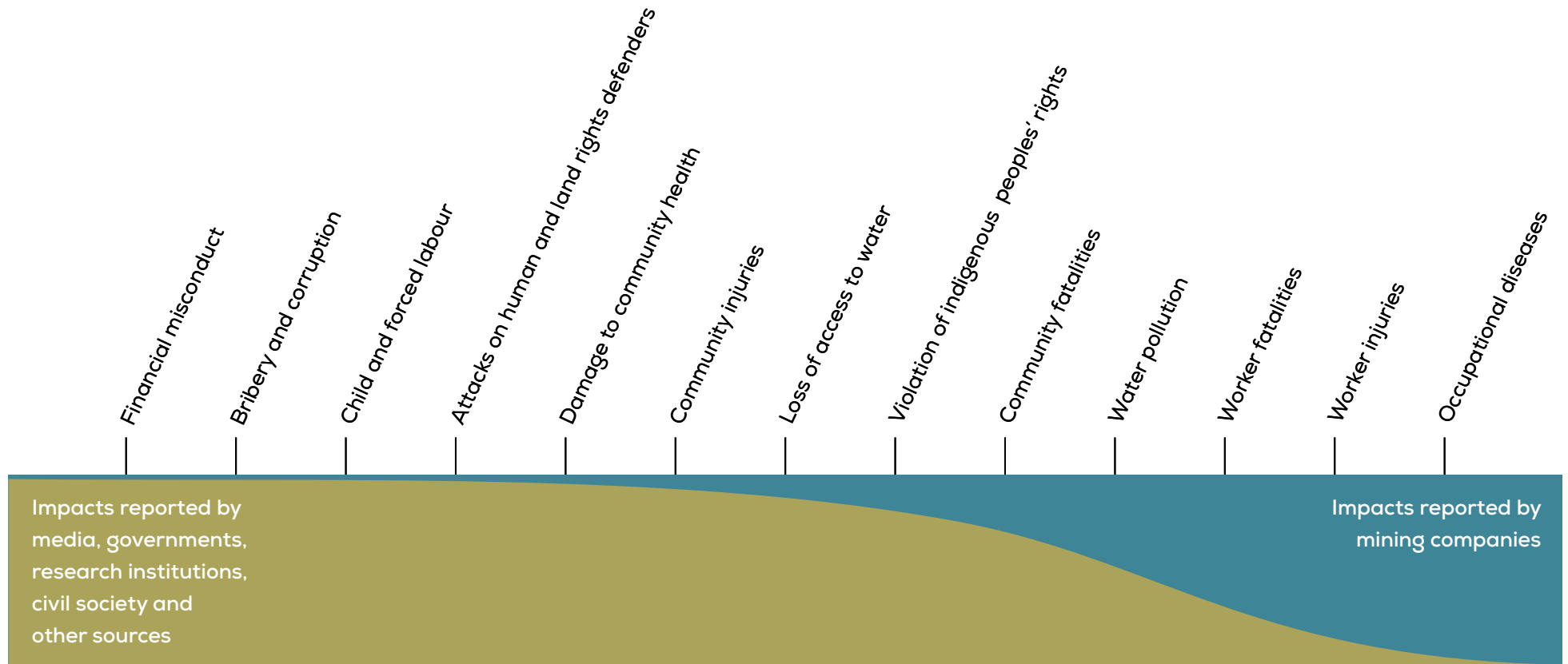
Relative incidence levels of major impacts identified in the study



How to read this chart

The terms shown in the word cloud include only those impacts identified in the study and are therefore necessarily limited to cases reported as specific incidents. Other impacts, such as greenhouse gas emissions or gradual pollution from acid mine drainage, are not included as these are rarely reported as standalone incidents within a given timeframe.

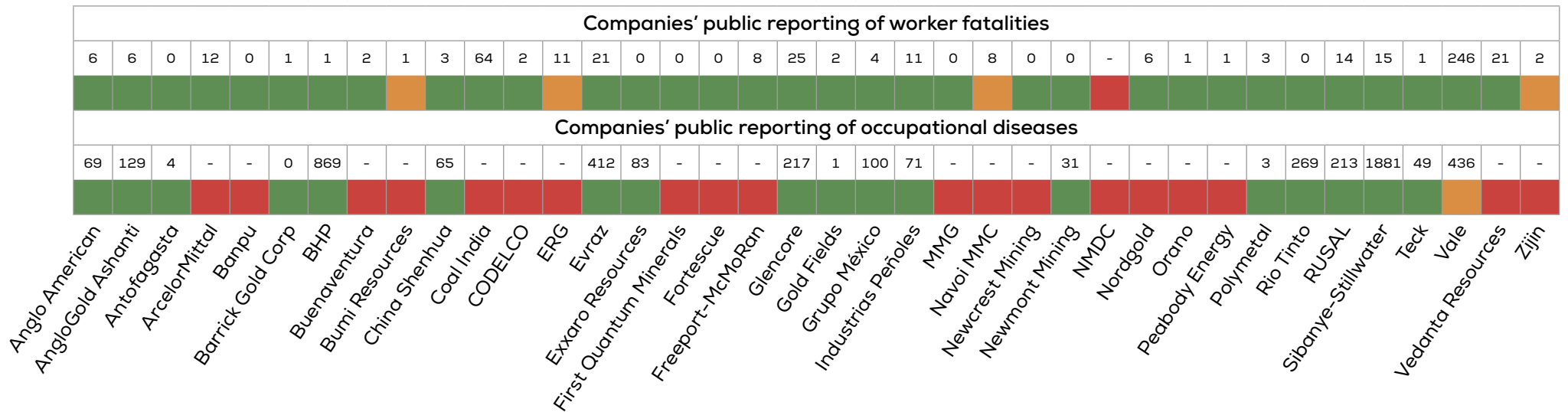
Spectrum of primary source of public disclosure of some impacts identified in the study



Variation in companies' public reporting of worker fatalities and occupational diseases

How to read this chart

The following chart illustrates the high level of variation in company reporting (during 2019 and 2020) of occupational health and safety impacts. The chart shows that while some companies publicly disclose the actual numbers of workers affected by these impacts, other companies do not provide any such data or provide only partial data (e.g., for only one year). Given the strong variation of reporting levels, the chart is not intended to be used to compare the different incidence levels shown. Full public disclosure of the human cost borne by workers and their families is critically important for accountability and for companies to show respect and build trust.



- Company publicly reports numbers of workers affected by these impacts
- Company publicly reports for only one of the two years the numbers of workers affected by these impacts
- Company does not publicly report numbers of workers affected by these impacts

Harmful impacts: examples and context

Tailings dam failure – exceptional in scale but not unprecedented

One incident – the catastrophic failure of the Brumadinho tailings dam in Brazil – overshadowed all others in the study. This devastating event, while exceptional in scale and media coverage, is part of a worrying trend that is expected to worsen in coming years.

CASE

Brumadinho tailings dam failure

In January 2019 an 86-metre-high tailings dam burst at a Vale mine site in the town of Brumadinho, Brazil. The huge volume of toxic sludge that was released covered 270 hectares of land and polluted over 300km of rivers.⁴ The dam was located just upstream of the mine workers' canteen and the collapse occurred while hundreds of workers were having their lunch. Many of the 270 confirmed deaths were among mine workers and some victims were never found.⁵ The river contamination downstream of the failed dam caused mass fish deaths and destroyed the livelihoods of many people.

CONTEXT

Catastrophic tailings dam failures: increasing in incidence and severity

While the scale and consequences of the Brumadinho dam failure were extreme, other major tailings dam failures have occurred on a regular basis over the past two years in countries such as Brazil, Peru, Russia, Australia and China, and the incidence rate of catastrophic failures has been increasing for some time.

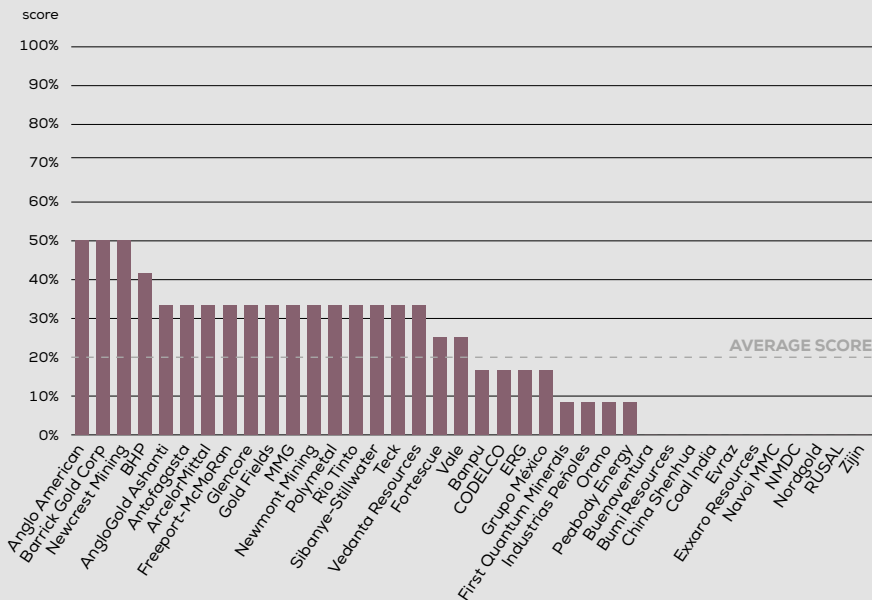
The [World Mine Tailings Failure](#) organisation has analysed decades of tailings dam failures and predicts that failures will increase in both frequency and severity. The organisation provides three reasons for increasingly severe failures: (1) existing tailings facilities are being stretched far beyond their planned capacity; (2) many of the tailings facilities that will be actively used in the coming years are old, high-risk and without robust management protocols; and (3) the trend towards mining lower grades means increased volumes of tailings more susceptible to causing catastrophic failure of the most common types of tailings facilities.

What are companies doing about this?

Given the huge harm caused by such failures, it is striking to note that only a handful of the companies in the study show evidence of having conducted third-party audits or reviews of the effectiveness of their tailings facility management, and these reviews are often quite limited in scope. Even fewer companies show evidence of having taken responsive actions on the basis of these reviews in order to improve their performance on managing tailings-related risks.

Figure 1 shows the overall results on companies' efforts to track, review and take action to improve how effective they are in addressing tailings-related risks.

Figure 1 Performance tracking and corrective actions to improve effectiveness of tailings facility management



Source: RMI Report 2020 (indicator F.02.3)

Water pollution – contamination with long-term impacts

Within the company sample, the study identified hundreds of reported incidents of toxic releases into water bodies, resulting in significant pollution of ecosystems and potentially endangering the health and livelihoods of local communities and wider populations.

CASES

Long-term release of toxins: examples of reported casesⁱⁱ

A 2019 study found that water downstream of a Rio Tinto mine in Madagascar showed high concentrations of uranium and lead, causing potential harm to local people who depend on a nearby lake and river for drinking water.⁶ The study, commissioned by The Andrew Lees Trust, found that concentrations of uranium were 350 times higher downstream of the QIT-Madagascar Minerals mine than upstream of it, and that lead concentrations were 9.8 times higher.⁷ While the company argued that radionuclides are already present in naturally high concentrations in the mineral sands, the groundwater and mining specialist who undertook the study concluded he was “99% confident” the mine affects water quality as the ilmenite extraction process can concentrate radionuclides.⁸

A 2019 report by Columbia University found elevated concentrations of heavy metals in rivers and streams near the Porgera mine in Papua New Guinea.⁹ The mine, operated as a Joint Venture between Barrick Gold Corp and Zijin, discharges tailings directly into rivers, as authorised by the government. The Columbia study found levels of toxins such as cadmium, lead, nickel, arsenic, and zinc that exceeded national and/or international quality standards for drinking water. While most residents do not rely on these sources for drinking water, children frequently play in the rivers and streams and local residents report burning sensations on their skin following contact with the tailings. According to the report, Barrick Gold Corp has acknowledged that the tailings pose a risk to those exposed to the waste.

In 2021, Canada’s Provincial Court of British Columbia fined Teck Coal (a subsidiary of Teck) approximately USD 47m for selenium and calcite pollution of waterways in the Elk Valley.¹⁰ The fine was the largest penalty imposed to date for offences under Canada’s federal Fisheries Act. However, environmental groups have argued that the fine is an insufficient deterrent given its size in relation to the company’s revenue, and they have raised alarm that the penalty relates only to pollution in 2012 as the Crown Prosecution agreed not to pursue charges related to releases of the same contaminants between 2013 and 2019.¹¹

ii See pages 19 and 31 for additional reported cases of water pollution

CONTEXT

Harmful impacts on water are cumulative

Mine-site impacts on water quality will vary widely and water quality monitoring will need to be adapted to the specific conditions of the area and the environmental regulations in place. In nearly all cases, the quality of water resources will depend on more than just the quality of individual mining operations’ discharges. The presence of other companies, population centres and livelihood activities will also contribute to water quality impacts. Such cumulative impacts make the regular disclosure of detailed data on ambient water quality all the more important.

A study by the Columbia Water Center and the Columbia Center for Sustainable Investment showed that these cumulative impacts can go unrecorded as many mine operators look only at their own pollutant discharge to surface and groundwater bodies, and assume that water availability will remain sufficient to dilute the pollution to the required level of quality.¹² The Columbia researchers concluded that as cumulative effects of pollution and water depletion become evident, mining operations will be likely to face significant social and regulatory pressure and risk loss of their social licence to operate.

What are companies doing about this?

As mining can have huge impacts on water resources, companies have a direct responsibility to demonstrate that their operations do not adversely impact the quality of downstream waterbodies. However, most of the companies in the study show little evidence of tracking, reviewing and acting to improve their performance on reducing their adverse impacts on water quality. And 15 of the 38 companies show no evidence of tracking or disclosing data on water quality downstream of their operations (see Figure 2).

Figure 2 Tracking and public disclosure of water quality monitoring data



- 15 companies with no evidence of tracking downstream water quality
- 23 companies track and disclose some data on downstream water quality
- 0 company fully tracks and discloses all data on downstream water quality

Source: RMI Report 2020 (indicator F.03.3.a)

Relatively detailed reporting of environmental incidents

Sibanye–Stillwater publicly reports on its serious environmental incidents in more detail than many other companies, providing details such as the names of the mine sites, the dates of the incidents, the causes and consequences, and the remedial actions taken.¹³

Barrick Gold Corp is among the few companies that publicly report more meaningfully on fines incurred due to environmental non-compliance and spills. While some companies report only the aggregate value of these fines, the company names the mine sites involved, specifies the types and volumes of pollutants released, and the value of the fines incurred.¹⁴

Human and land rights defenders – highly vulnerable in mining areas

The study identified several incidents of human and land rights defenders being targeted after protesting about the impacts of mining operations owned by the assessed companies. Incidents included death threats and violent attacks. The results align with the findings of other studies that show that mining is one of the deadliest sectors for defenders of human rights and land and environmental rights.

CASES

Death threats and attacks on human rights defenders in La Guajira, Colombia

In April 2019 renewed death threats were sent, via Facebook, to Fuerza de Mujeres Wayuu, targeting named members of this women-led human rights group in Colombia.¹⁵ The group has been fighting for the rights of Indigenous and African-descent communities affected by the Cerrejón coal mine, then owned by Anglo American, BHP and Glencore. Other community leaders and members of the mine workers' union, Sintracarbón, also received fresh death threats around the same time. Cerrejón publicly condemned the threats and called on government authorities to take action.¹⁶

CONTEXT

Human and land rights defenders at heightened risk in mining areas

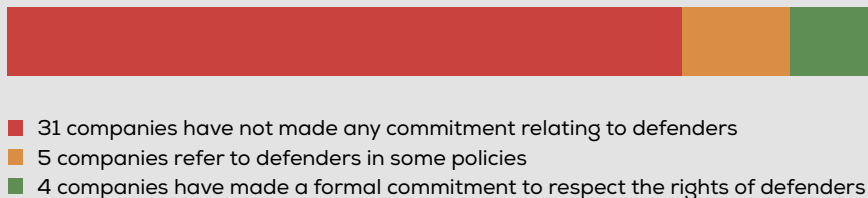
Mining is one of the deadliest sectors for defenders, according to Global Witness which publishes annual figures on threats and attacks on land and environmental defenders. Since 2015, mining and agribusiness have been linked to over 30% of the killings of defenders documented by Global Witness.¹⁷ In 2019 alone, 50 of the 212 defenders murdered in 2019 had been protesting against mining operations.¹⁸

In 2020, the Business & Human Rights Resource Centre (BHRRC) tracked 604 attacks against human rights defenders focused on business-related activities. As per BHRRC's 2019 data, mining was associated with many of the attacks, second only to agribusiness with 138 cases related to mining (and 147 cases related to agribusiness).¹⁹ Overall, more than one-third of the cases stemmed from a lack of consultation or the failure to secure free, prior and informed consent (FPIC) of affected communities.

What are companies doing about this?

While the mining companies associated with these killings were not directly implicated in these incidents, their presence and activities are linked to the original protests and therefore to subsequent threats and attacks. Mining companies are expected to promote respect for human and land rights defenders and specific guidance is available for responsible practices in this area.²⁰ Given the reputational risks, it is clearly in companies' interests to take a strong stand on this issue. However, in the RMI Report 2020, Newmont was the only company to have made a formal commitment to respect the rights of human rights defenders (the company has nonetheless been involved in a longstanding legal battle in Peru with an environmental defender and her family (see [page 25](#))). Some companies have since stated that they would not tolerate threats against defenders, but of the 40 companies assessed in the RMI Report 2022, Anglo American, Glencore and Teck were the only other companies in the sample to publish a formal commitment to respect their rights (see Figure 3).

Figure 3 Commitment to respect the rights of human and land rights defenders



Source: RMI Report 2022 (indicator D.01.4.a) (40 companies assessed)

Criminalisation of human and land rights defenders – signs of a troubling trend

The study identified two cases, both in Peru, where mining companies have filed criminal charges against community members opposed to their operations. These have both resulted in lengthy legal proceedings. The cases appear to be part of a trend reported by international human rights groups, of increasingly common attempts to criminalise human and land rights defenders.

CASES

Legal action by companies against mining-affected people protesting severe impacts

Newmont currently has two civil lawsuits pending in Peruvian courts against the Chaupe family who have been in a longstanding land dispute with the company.²¹ The family farms an area slated for a new gold mine near the company's Yanacocha operation, which is run as a joint venture between Newmont and Buenaventura. Maxima Acuna Atalaya de Chaupe, who farms the land with her husband, was awarded the Goldman Environmental Prize in 2016 recognising her efforts to defend her family's land.²² Previously, Newmont had filed criminal charges against members of the Chaupe family; the Peruvian judiciary ruled that the family did not commit any crime. At the same time the Chaupe family has filed legal claims against the company, one of which is ongoing.²³

A court case brought by MMG against 19 Indigenous land rights defenders is ongoing in Peru. In 2015, MMG filed a criminal case against the defenders who had been demonstrating against the company's copper mine project, Las Bambas. The community members were charged with offences of rioting, aggravated damages, and illegal possession of weapons, ammunition and explosives. The main focus of the protest was the amendment by MMG to the Environmental Impact Assessment (EIA) without public consultation, for the copper concentrate to be transported by trucks, rather than by pipeline as had been indicated in the original EIA, leading to reports of clouds of dust, vibrations and dangers to livestock along the 450km dirt road which goes through more than 70 communities.²⁴ In March 2020 the local court acquitted all 19 defenders due to a lack of sufficient evidence.²⁵ This acquittal was later annulled in July 2021, meaning the trial will resume.²⁶ Meanwhile arbitrary arrests and detentions of community protestors by Peruvian police continue in the area.

CONTEXT

Criminalisation of local protestors, human and land rights defenders

For some years now, human rights organisations have been reporting increased use of legal action by mining companies against human rights defenders and others protesting against severe risks or impacts of mining. In a 2021 report, the Business and Human Rights Resource Centre analyses 355 criminal and civil cases filed by companies or businesspeople since 2015, which can be classified as 'strategic lawsuits against public participation' (SLAPPs), brought to intimidate, bankrupt or silence critics.²⁷ In many instances, the defendants are Indigenous leaders or community members protecting their land and territories from large-scale projects, with the mining sector accounting for most legal action of this type. The highest number of SLAPPs took place in Latin America. According to the report, a few governments have taken steps to stop the use of SLAPPs by enacting anti-SLAPP legislation, including the United States, Canada, Australia, the Philippines, Indonesia, and Thailand.

Worker fatalities - a persistent challenge

Workplace accidents account for a large proportion of the incidents identified in the study. Safety incidents resulted in over 500 reported deaths, for the 2019-2020 period. The fatalities data collected in the study are shown in Table 1.ⁱⁱⁱ

CASES

Fatal workplace accidents: a few examples

While companies generally report basic data on any fatalities at their mining operations, many provide little or no details on the fatal accidents, such as naming the mine sites where these incidents occurred, the causes of the accidents, the lessons learned or the actions taken to avoid recurrence. Below are a few examples of fatalities recorded in the study. Most have been taken from external sources, as the companies involved provided less detail of these incidents in their reporting.

In 2019 a miner in Anglo American's Moranbah North mine in Queensland, Australia was killed after being hit by a runaway engineering vehicle on the site. The Queensland government's mines inspectorate charged the company with the miner's death, over alleged breaches of the state's coal mine safety and health act.²⁸

Three miners working underground at the Mopani mine in Zambia died in 2019 after a vehicle caught fire while being refuelled.²⁹ One month later, two workers died after a blasting accident at the same mine, then owned jointly by Glencore, First Quantum Minerals and a Zambian investment firm.

Two of the nine fatalities among Sibanye-Stillwater's workforce in 2020 occurred at the company's Beatrix mine in South Africa when two workers became trapped underground following a fall-of-ground accident.³⁰ The same mine site saw a similar fatal accident in 2018, and a serious incident the same year when over 1,100 mine workers were trapped underground for 24 hours due to a power outage, before being rescued.³¹

Eight mineworkers lost their lives in a bus accident at Evraz's Rospadskiy mine in Russia in 2019. The bus driver mistakenly drove to the wrong location and as he attempted to turn the bus around, the vehicle fell from a height of 11 metres.³² The company's investigation into the incident found causal factors that included a lack of fencing and warning signs at the site and the fact that workers were given insufficient instructions on specific safety precautions.³³

ⁱⁱⁱ RMF has made best efforts to collate an accurate reflection of company reporting of fatalities. Inconsistencies may arise due to different reporting schedules or other reasons.

Many mining fatalities go unreported

Accidental fatalities in mining often go unreported, even among large companies. Some companies simply do not report on worker fatalities at all, while others exclude fatalities at joint venture operations for which they are not the operating entity. In fact the ICMM reporting guidelines on occupational health and safety note these joint venture fatalities as specific exclusions from reporting requirements.³⁴ Of those companies that report worker fatalities, about one-third do not specify if their fatalities data covers deaths of workers working for contractors as well as employees. This is significant as contract workers are often at higher risk of suffering injuries or fatalities. For example, one company noted that nearly 90% of the injuries and fatalities within its workforce concerned contract workers.³⁵

While there is no clear estimate of the numbers of workers killed every year in safety incidents, it is likely to be in the thousands, if accidental fatalities in ASM operations and illegal mining are included.³⁶ The scale of these incidents is chilling, particularly given the wider impacts on workers' families. While many companies have implemented comprehensive programmes to improve workplace safety and progress has been made,³⁷ failures are still relatively common. And while the ILO recognises mining as a disproportionately dangerous occupation,^{iv} the 1995 ILO Convention on Safety and Health in Mines has still not been ratified by some of the most important producing countries. This includes for example, Australia, Burkina Faso, Canada, China, DRC, Ghana, India, Indonesia, Mexico and Pakistan.

iv ILO, 2015. Mining: a hazardous work [\[link\]](#) At the time of this 2015 publication, the ILO found that while mining accounted for one percent of the global workforce, it was responsible for about eight percent of fatal accidents at work.

Relatively detailed reporting of worker fatalities

Evraz is one of the few companies to provide basic contextual information relating to worker fatalities. The company publicly reports on the causes of worker fatalities, specifies if those killed were employees or contractors, and summarises the corrective actions that have been taken to avoid repeat occurrences.

Table 1 Companies' public reporting of worker fatalities (2019 and 2020)

Company	2019			2020		
	Total worker fatalities	Employee fatalities	Contract worker fatalities	Total worker fatalities	Employee fatalities	Contract worker fatalities
Anglo American	4	2	2	2	2	0
AngloGold Ashanti	0	0	0	6	4	2
Antofagasta	0	0	0	0	0	0
ArcelorMittal	9	Not Specified	Not Specified	3	Not Specified	Not Specified
Banpu	0	0	0	0	0	0
Barrick Gold Corp	0	Not Specified	Not Specified	1	Not Specified	Not Specified
BHP	1	Not Specified	Not Specified	0	Not Specified	Not Specified
Boliden	0	0	0	0	0	0
Buenaventura	2	Not Specified	Not Specified	0	Not Specified	Not Specified
Bumi Resources	Not Reported	Not Reported	Not Reported	1	0	1
China Shenhua	2	0	2	1	1	0
Coal India	34	Not Specified	Not Specified	30	Not Specified	Not Specified
CODELCO	1	1	0	1	0	1
ERG	11	10	1	Not Reported	Not Reported	Not Reported
Evraz	16	12	4	5	5	0
Exxaro Resources	0	0	0	0	0	0
First Quantum Minerals	0	0	0	0	0	0
Fortescue	0	0	0	0	0	0
Freeport-McMoRan	3	1	2	5	2	3
Glencore	17	11	6	8	6	2
Gold Fields	1	Not Specified	Not Specified	1	Not Specified	Not Specified
Grupo México	4	3	1	0	0	0
Industrias Peñoles	4	Not Specified	Not Specified	7	Not Specified	Not Specified
KGHM Polska Miedź	6	Not Specified	Not Specified	6	Not Specified	Not Specified
MMG	1	0	1	0	0	0
Navoi MMC	8	Not Specified	Not Specified	Not Reported	Not Reported	Not Reported
Newcrest Mining	0	Not Specified	Not Specified	0	Not Specified	Not Specified
Newmont	0	0	0	0	0	0
NMDC	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported
Nordgold	5	3	2	1	0	1
OCP Group	1	0	1	1	0	1
Orano	0	0	0	1	0	1
Polymetal	3	2	1	0	0	0
Rio Tinto	0	Not Specified	Not Specified	0	Not Specified	Not Specified
RUSAL	7	4	3	7	2	5
Sibanye-Stillwater	6	6	0	9	8	1
Teck	1	Not Specified	Not Specified	0	Not Specified	Not Specified
Vale	242	124	118	4	1	3
Vedanta Resources	9	Not Specified	Not Specified	7	1	6
Zijin	Not Reported	Not Reported	Not Reported	2	0	2

Rape, sexual assault and harassment – women workers at high risk

The study identified a few public reports of workplace sexual assault or sexual harassment. These cases were reported in the context of external investigations, rather than having been proactively reported by the companies concerned. Individual incidents are very seldom reported in the media and company reporting is also very limited. This suggests that these impacts on mining workers are at risk of becoming normalised within the industry.

CASES

An investigation into sexual assault and harassment in Western Australian mines

A parliamentary inquiry by Western Australia's government was established in July 2021 to investigate sexual harassment against women in the state's fly-in-fly-out (FIFO) mining industry.³⁸ The inquiry, which was set up following several high-profile incidents, received reports and statements from interested parties.³⁹ These included submissions from:

BHP: In a two-year period from mid-2019 to mid-2021, BHP reported having received 18 reports of sexual assault and 73 of sexual harassment among its 13,500-strong workforce in Western Australia.⁴⁰ Some 48 workers had been fired as a result of these offences. The company stated that internal investigations had substantiated allegations of two rapes, one attempted rape, and three cases of forced kissing or groping. At the time of the company statement, three other sexual assault allegations were still being investigated.

Rio Tinto: During an 18-month period to July 2021, Rio Tinto reported one substantiated case of sexual assault and 29 substantiated reports of sexual harassment within its FIFO operations in Western Australia.⁴¹ At the time of the company's statement there was an additional allegation of sexual assault and 14 reports of sexual harassment under investigation. Eight reports of sexual harassment were unable to be substantiated.

Fortescue: The company recorded a total of 11 reports of sexual harassment in 2020 and, at the time of the August 2021 statement, a total of 20 to-date in 2021 at its operations in Western Australia.⁴²

CONTEXT

Some statistics on sexual assault and sexual harassment

In 2021, the Western Mine Workers' Alliance (WMWA) conducted a survey on 425 men and women who work in Western Australia's FIFO operations. The survey found that nearly 25 percent of female respondents had reported experiencing physical acts of sexual assault.⁴³ The Alliance, which represents hundreds of mining workers in the region, recommended panic buttons, self-closing doors and security guards at all mine sites, as well as curbing excessive alcohol consumption by workers to stop drink spiking.

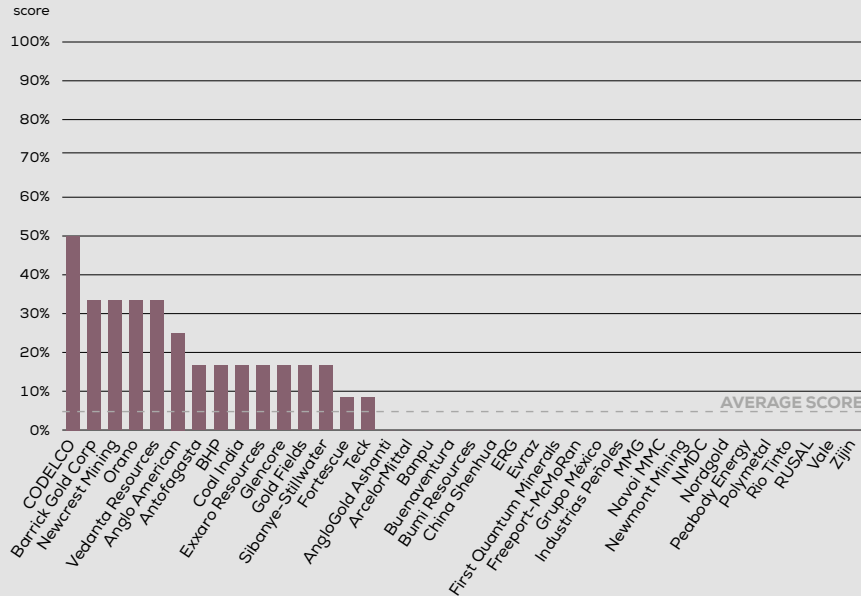
The problem is by no means unique to Western Australia. A 2020 report of a national investigation by the Australian Human Rights Commission found that 40% of the minerals industry workforce had experienced some form of workplace sexual harassment in the past five years. The report revealed that women, who account for just under a fifth of the national mining workforce, were more than twice as likely as men to be sexually harassed.

These statistics mirror the findings of a 2016 study by Canada's Mining Industry Human Resources Council, which found that almost one-third of women mining workers in the country had reported experiencing harassment, bullying or violence in their workplace in the preceding five years.⁴⁴ Again, this study found that women were twice as likely as men to report being subjected to these problems. A 2020 study in South Africa found that while verbal abuse was the most common form of harassment, women mine workers also faced requests for sexual favours in exchange for physical labour, promotions, transfers or changes in work schedules.⁴⁵

What are companies doing about this?

Given the prevalence of sexual harassment and gender-based violence within mining workforces, and particularly against women workers, companies are expected to have established systems to ensure their operations work to prevent such impacts. However, only a small minority of the companies in the study show evidence of such systems. Overall, the companies score an average of only 8% on this issue (see Figure 4), and the three above-mentioned companies reporting incidents in their Western Australia operations achieve scores of between 0% and 17%.

Figure 4 Management systems to protect women workers from harassment and violence



Source: RMI Report 2020 (indicator E.01.3)

Proactive reporting of sexual harassment cases

Vedanta publicly reports on the number of sexual harassment cases brought each year and specifies the number of cases that have been upheld.⁴⁶ Provision of even this basic data is very much the exception as many other companies do not proactively report on incidences of sexual harassment.

Serious harm to health and safety in mining-affected communities

The study identified serious and confirmed impacts on the health and safety of hundreds of community members from severe pollution incidents, accidental injuries and fatalities, and violent attacks related to security management. The thousands of severe pollution incidents reported separately by the assessed companies are likely to have caused further damage to the health of local communities and wider populations although these details are not provided.

CASES

Health and safety impacts in communities: a few examples

In 2019 about 20 people died near Glencore's Mutanda Mine in DRC when a truck carrying acid to the mine crashed and spilled its contents onto two other vehicles.⁴⁷

A sulphur dioxide gas leak at Vedanta's Nchanga mine in Zambia in 2019 resulted in over 200 school children and over 40 miners being hospitalised.⁴⁸ The mining operation has been at the centre of a dispute between Vedanta and the Zambian government and at the time of the incident the company claimed it did not have access to the mine site.⁴⁹

In 2019 ten victims of alleged attacks in 2018 by security forces at AngloGold Ashanti's Siguiri mine in Guinea filed a criminal complaint against the company. According to local medical sources, more than 40 people were injured after security forces opened fire on protesters. The complaint details a case of rape committed by the police against a young woman shortly after her arrest. She was detained for two days, where she was repeatedly raped by several soldiers.⁵⁰

In 2019 a Chilean court ordered the permanent closure of the Chilean portion of Barrick Gold Corp's Pascua Lama mine, which extends into Argentina. The court ruled that the company had failed to comply with its environmental license and consequently was not able to adequately protect the environment and people's health.⁵¹ The company faced 33 total charges, including contaminating the Estrecho river.⁵²

CONTEXT

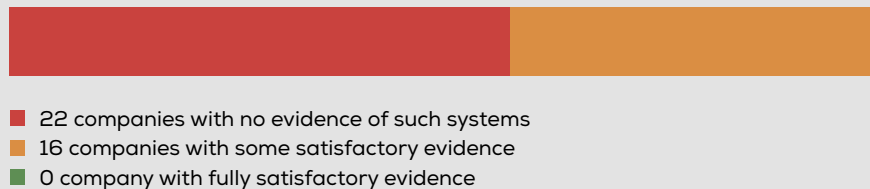
Populations in mining areas generally face more health issues

A recent OECD study found that communities in mining regions often show clear signs of health impacts.⁵³ The study compared health status indicators (life expectancy and mortality rate) in select mining regions in 15 OECD countries to the average outcomes in all regions. Populations in mining regions showed significantly poorer-than-average health. The study lists environmental factors (air, water, soil and noise pollution) as well as non-environmental factors (such as stresses related to mining disasters, closures or work patterns) that impact community health.

ACTION**What are companies doing about this?**

Mining-related health impacts in local communities are well documented. Yet most of the companies in the study show no evidence of systematically monitoring the impacts of their activities on community health and taking responsive action. Less than half of the companies demonstrate that they are assessing their impacts on community health and developing plans to address these impacts (see Figure 5).

Figure 5 Management systems to assess, avoid and address mining impacts on community health



Source: RMI Report 2020 (indicator D.01.4.a)

GOOD PRACTICE EXAMPLE**Relatively detailed reporting of community fatalities**

AngloGold Ashanti is one of the few companies to regularly report publicly on the number of fatalities of community members (most often caused by security incidents relating to ASM miners operating on company property).⁵⁴ This reporting highlights the major impacts seen on local stakeholders, but also provides a transparency model that other companies can follow.

GOOD PRACTICE EXAMPLE**Near real-time reporting of air quality in affected community**

Glencore's Mount Isa in Australia is located very close to the city of Mount Isa. Sulphur dioxide from the mine's lead and copper smelter creates a visible plume over the area. The company shares air quality information with the community in near real-time, via a smartphone application that provides hourly average levels of sulphur dioxide at 12 different monitoring points in the city.⁵⁵

Bribery and corruption – when private interests harm economic development

The study identified several reports of investigations and court cases related to bribery and corruption allegations.

CASES

Examples of recent investigations

In 2020 Rio Tinto entered talks with the UK Serious Fraud Office (SFO), seeking an agreement to avoid prosecution on bribery allegations. The SFO launched an investigation in 2017 on suspected corruption linked to how Rio Tinto secured its claim to the Simandou iron ore mine in Guinea. The company paid \$10.5 million to a consultant, who allegedly helped facilitate the agreement with the then President Condé. The company later sacked the senior executive responsible for the project and its head of legal affairs, saying they had “failed to maintain the standards expected of them under our global code of conduct”.⁵⁶

In 2020 Switzerland’s Attorney General’s Office (OAG) opened a criminal investigation into Glencore over allegations that the company failed to implement measures to prevent corruption in the Democratic Republic of the Congo. The investigation follows a complaint received by the OAG in 2017 alleging bribery of foreign public officials.⁵⁷ In 2019 Glencore was also the subject of corruption investigations by the US Commodity Futures Trading Commission and Brazilian authorities.⁵⁸

In 2020 France’s National Financial Prosecutor’s Office opened a corruption investigation into Areva (now known as Orano) relating to the sale of uranium in Niger. The case relates to events in 2017 when Areva first sold a large quantity of uranium for USD 320 million to a Russian company, which then sold the stock a few days later to a Nigerien state-owned company. Areva then bought back the stock at a price much higher than it had originally sold it at. The investigation is seeking to determine if the financial arrangement had involved bribery and money laundering.⁵⁹

CONTEXT

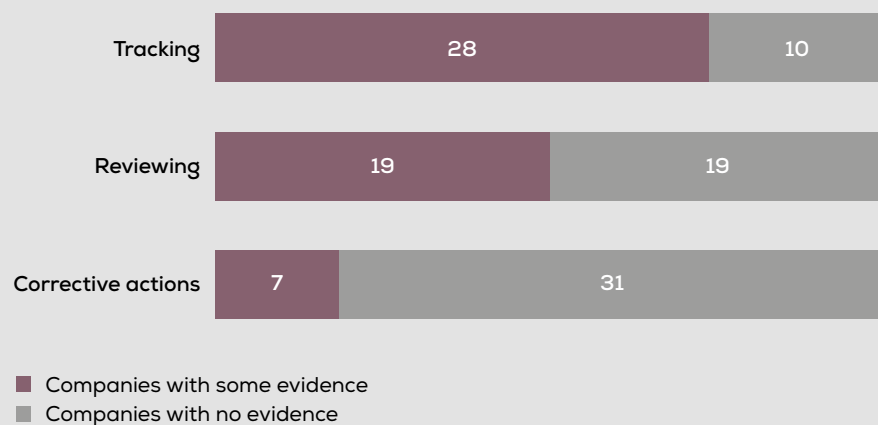
Corruption in the mining industry

The mining sector is prone to corruption risks. According to the OECD Foreign Bribery Report, one in five cases of foreign bribery occurs in extractives (mining, quarrying, oil and gas extraction, and mining support services activities).⁶⁰ Potential points where corruption may arise include, for example, when companies enter into joint ventures, when a government awards or amends mining licenses, when companies use subcontractors, when governments undertake routine inspections of mine sites, when minerals are shipped internationally, and when taxes are collected.⁶¹

What are companies doing about this?

The vast majority of the companies in the study have made formal commitments to prevent all forms of bribery and corruption. But only a handful of the companies show evidence of reviewing the effectiveness of the measures they are taking on anti-bribery and corruption. Likewise, only a few companies can demonstrate they have made efforts to improve their performance on preventing bribery and corruption (see Figure 6).

Figure 6 Performance tracking and corrective actions to improve effectiveness of anti-bribery and corruption measures



Source: RMI Report 2020 (indicator B.01.2)

Covid-19 pandemic heightened risks for mining-affected stakeholders

The study identified several reports of cases where the harmful impacts of mining on workers and communities were exacerbated by the Covid-19 pandemic.

CASES

Covid-19-related impacts of mining

A preliminary criminal investigation was launched in 2020 against the Peruvian company operating the Antamina mine in Peru, linked to a reported outbreak of 210 Covid-19 cases at the operation.⁶² The company, a joint venture between BHP, Glencore, Teck and Mitsubishi Corporation, was accused of crimes related to violation of health protection measures, disobedience, and resistance to authority.⁶³ The outbreak at Antamina was reported as the biggest mining outbreak in the country and one of the worst worldwide.⁶⁴ “Antamina must have been a world record,” said José de Echave, co-founder of the local NGO CooperAcción and a former vice minister at Peru’s environment ministry. “That created a suspicion around mining protocols.”⁶⁵

In 2020 while communities across Guinea were under Covid-19 shelter-in-place orders, CBG – a joint venture company part-owned by Rio Tinto – relocated more than 100 families to expand its bauxite mine.⁶⁶ Residents of the area had already filed a complaint about the mine with the International Finance Corporation (IFC) for the loss of their ancestral farmlands and livelihoods to the mine. The resettlement reportedly left families without adequate housing, water, and sanitation and without sufficient arable land and sustainable livelihood opportunities.⁶⁷ The resettlement took place just prior to the planned start of an IFC-facilitated mediation process between the local communities and the company, which had been delayed due to the pandemic among other issues.⁶⁸

CONTEXT

Covid-19 pandemic has led to reduced civic space, increased threats to defenders

Civil society groups around the world have documented how emergency measures to address the Covid-19 pandemic have been used to decrease civic space, strengthen state powers and secure regulatory powers in favour of mining companies.⁶⁹ In many countries, confinement and emergency measures have been accompanied by increased surveillance, harassment, threats or arrests of defenders.⁷⁰ The UN Special Rapporteur on the situation of human rights defenders has warned that the pandemic may have set back hard-won progress on human rights protections.⁷¹ A global trade union has also reported cases of companies implementing Covid-19 responses that do not respect worker rights.⁷²

Intentional practices leading to harm may be legal

Many of the incidents identified in the study were not necessarily caused by illegal activities. Workplace accidents caused the majority of the impacts (fatalities and serious injuries) and it is highly unlikely that all of these involved violations of health and safety laws. And even an impact caused by the deliberate action of a mining company is not necessarily unlawful, if the regulatory framework is weak or inadequate. For example, the disposal of tailings into rivers is lawful in a number of countries, despite the practice being widely considered damaging.

CASES

Legal yet destructive incidents

In 2020, Rio Tinto blasted two ancient rock shelters in the Juukan Gorge in Western Australia, as part of the expansion of its iron ore mining operations in the area. The rock shelters were sacred sites of the Puutu Kunti Kurrama and Pinikura (PKKP) Peoples. One of the shelters showed evidence of continual human habitation dating back 46,000 years.⁷³ The destruction of these sites was not illegal, given the weak Aboriginal heritage protection laws in the state. However, the huge outcry that followed eventually led to the departure of the company's CEO, two Board members and several senior executives.⁷⁴ An Australian Parliamentary inquiry recommended that Rio Tinto compensate the PKKP Peoples for destruction of these heritage sites. The inquiry also recommended that the state government enact new legislation on Aboriginal heritage protection to bring it in line with the internationally recognised principle of free, prior and informed consent (FPIC).⁷⁵

A 2019 report on the Porgera mine in Papua New Guinea cited serious water quality concerns from the tailings deposited directly into local rivers. The mining operation, owned jointly by Barrick Gold Corp and Zijin, is permitted by the PNG authorities to discharge tailings into rivers which local residents use for washing their clothes and bodies.⁷⁶ The disposal of tailings into rivers is prohibited in many countries due to the potential damaging effects on water quality and biodiversity.

CONTEXT

Weak legislation on mining practices increases risk of serious impacts

Weak regulatory requirements on mining company practices contribute to heightened risk of serious impacts. In most cases, significant improvements to legal frameworks have only been enacted in response to disasters. For example, after the 2014 Mount Polley tailings dam failure in Canada, the province of British Columbia made important changes to its mine legislation. The reforms introduced requirements for companies to develop an emergency preparedness and response plan for all tailings storage facilities, and for independent safety reviews to take place regularly for all tailings storage facilities, not just the ones with highest risk of serious consequences in case of failure.⁷⁷ Likewise, the 2015 Samarco tailings dam failure in Brazil led to similar important revisions to the country's mining laws which, while not preventing the subsequent disaster in Brumadinho, entailed significant improvements. The new requirements made regular dam safety reviews mandatory and strengthened the requirements for emergency action plans.⁷⁸

Seeking remedy: examples and context

Companies are often hesitant to provide remedy

The study identified cases where victims of harmful impacts spent many years seeking remedy from the companies involved. Instances of where companies have, on their own initiative, accepted liability and offered remedy for harm done, appear to be quite rare. In addition, companies' mine-site-level grievance mechanisms are too often 'black boxes' with little or no transparency on the issues being raised, the actions taken, or any remedy provided.

CASES

Examples of long-running legal claims for remedy

In 2019 a Johannesburg High Court approved a \$353 million class action settlement between gold mining companies, including Anglo American, AngloGold Ashanti, Gold Fields, Sibanye-Stillwater, and law firms representing thousands of miners who contracted the fatal lung diseases silicosis and tuberculosis, caused by inhaling silica dust from gold-bearing rocks at various South African mines.⁷⁹ The settlement marked the end of a long legal battle for the miners for illnesses they say they contracted over decades because of negligence in health and safety. The class action suit was launched in 2012 and estimates for the number of potential claimants range from tens of thousands to hundreds of thousands.⁸⁰ Of the 40,000 claimants by mid-2021, 100 have so far received compensation payments.⁸¹

In 2021, the Mexican chapter of the High Commissioner's Office for Human Rights of the United Nations demanded full compensation from Grupo México for the victims of a 2014 toxic spill at Grupo México's Buenaventura mine. The spill released 40,000 cubic meters of acidic copper sulphate into the Bacánuchi and Sonora rivers in northern Mexico, leaving 22,000 inhabitants without drinking water and severely impacting the local economy. The Commissioner's Office urged the mining company to strengthen the "integral reparation process" for the victims and demanded concrete actions to clean up and repair the ecosystems in and around the Sonora and Bacanuchi rivers.⁸²

What are companies doing about this?

Robust operational-level grievance mechanisms are a basic requirement in providing access for affected people to raise concerns and seek remedy. However, few of the companies in the study can demonstrate that they have these mine-site-level grievance mechanisms in place. Of the 180 mine sites in 49 producing countries assessed in the RMI Report 2020, only about one-third of the mine sites show evidence of operational-level grievance mechanisms for communities and workers (see Figure 7).

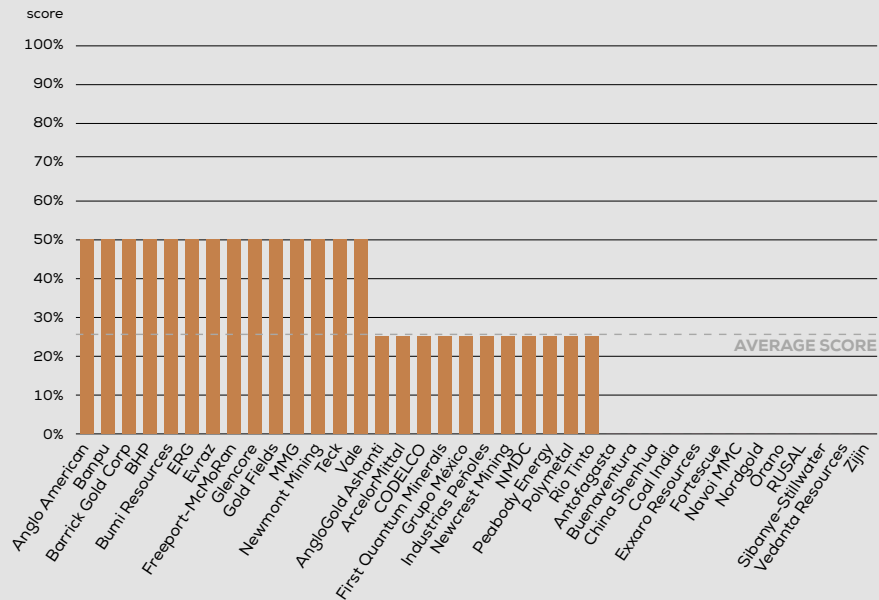
Studies have shown that operational-level grievance mechanisms for communities can be deeply flawed as procedures for providing remedy.⁸³ It is important for external stakeholders to be able to know how the mechanisms are being used: the issues raised, any actions taken and any remedy provided. Too often this information is not shared by the companies involved. The companies assessed in the RMI Report 2020 score an average of only 25% on tracking and publicly reporting on the functioning and uptake of their grievance mechanisms for affected communities and groups (see Figure 8).

Figure 7 Evidence of operational-level grievance mechanisms at 180 mine sites



Source: RMI Report 2020 (indicators MS.04 and MS.05)

Figure 8 Tracking and public disclosure of the functioning and uptake of community grievance mechanisms



Source: RMI Report 2020 (indicator D.12.1a)

OECD National Contact Points offer a potential pathway for remedy

The study identified several cases submitted to OECD National Contact Points (NCPs) alleging specific instances of non-observance of the OECD Guidelines for Multinational Enterprises by companies covered in the study. A total of four cases related to mining companies were submitted to NCPs during the 2019-2020 period, of which three related to Vale's Brumadinho tailings dam failure and one to Rio Tinto's former Panguna mine in Bougainville.⁸⁴

CASES

Allegations of severe impacts submitted to OECD National Contact Points

In 2020, Rio Tinto agreed to engage with the complainants in a case brought to the Australian NCP about the Panguna copper and gold mine in the autonomous region of Bougainville in PNG. The mine was run by a subsidiary of Rio Tinto from the early 1970s to 1990 when it was abandoned during a civil war that was largely fought over how mine profits should be shared.⁸⁵ The case, backed by 156 community members, alleges that the large volumes of mine waste left behind poisoned water sources, flooded lands and sacred sites, and caused a range of health problems.⁸⁶ Rio Tinto, which had rejected a previous request by the same group for a review of health and safety concerns at the mine, said in 2020 that it was "aware of the deterioration of mining infrastructure at the site and surrounding areas, and claims of resulting adverse environmental and social, including human rights, impacts".⁸⁷ The case is currently being reviewed by the Australian NCP's Independent Examiner.⁸⁸ Most recently, in 2021 Rio Tinto and Bougainville community members, represented by the Human Rights Law Centre, have reached an agreement to identify and assess legacy impacts of the mine.⁸⁹

In 2020, the Chilean NCP concluded its treatment of a case brought against Teck's Quebrada Blanca mining operation in Chile. The complaint was filed by a mineworkers' union which alleged serious shortcomings in the development of a collective bargaining agreement in 2017. The NCP led a mediation process between the company and the union which resulted in an agreement, and then monitored compliance with this agreement.

CONTEXT

OECD National Contact Points as potential grievance mechanism

The OECD Guidelines for Multinational Enterprises present a global framework for responsible business and cover a wide range of issues including disclosure, human rights, employment and industrial relations, environment, anti-corruption, competition and taxation. The 38 OECD countries plus the 12 non-OECD countries that have adhered to the Guidelines are required to set up National Contact Points (NCPs) which are tasked with furthering the effectiveness of the Guidelines.⁹⁰ As part of their mandate, NCPs provide a mediation and conciliation platform for helping to resolve cases on the alleged non-observance of the Guidelines. This process relies on the willingness of companies to engage with the NCPs.

As such, the NCPs represent a potential grievance mechanism that has been in place since 2000. In a recent review, OECD noted that the number and visibility of cases submitted to NCPs has been increasing.⁹¹ Between 2000 and 2019, NCPs have handled more than 500 cases relating to company operations in over 100 countries and territories.⁹²

A 2019 OECD report found that during the period 2011-2018 a total of six mining-related cases brought to NCPs resulted in the NCP issuing at least one recommendation to one of the companies in question. These cases involved NCPs in Canada, Colombia, Luxembourg and Mexico and related to mining company activities in Colombia, China, Liberia, Mali and Mexico.⁹³

At the same time, the effectiveness of NCPs as a means for affected stakeholders to access remedy has been challenged by civil society groups and others, citing for example shortcomings in the impartiality of how some NCP cases have been handled.⁹⁴

Companies are being brought to court in home countries

The study identified three instances where mining-affected stakeholders filed claims about alleged severe impacts, lodging their cases not in the producing countries but in the home countries (the UK and Canada) of the companies (or parent companies) concerned. The rulings that these cases could be heard in home country courts set important precedents in these countries for other claims related to alleged mining impacts in third countries.

While these rulings are very significant in this regard, lawsuits of this kind present particular challenges as paths to remedy. Successful claimants are usually only a small subset of those harmed and the time, cost and legal knowledge required to bring these cases make them inaccessible to most victims.

CASES

Lawsuits by mining-affected stakeholders in companies' home countries

In 2019 the UK Supreme Court ruled that a 2015 lawsuit brought by over 1,800 Zambian community members against Vedanta (a UK-registered company) could be heard in UK courts.⁹⁵ The claims concern alleged damage to their land, water and health from effluent from a mine owned by Vedanta's Zambian subsidiary.⁹⁶ The decision, which followed two earlier appeals by Vedanta in 2016 and 2018, was a landmark case for the legal treatment of parent-subsidiary relationships in UK law. The case was eventually settled out of court, without any admission of liability by Vedanta or its subsidiary.

In 2020, ten claimants filed a legal complaint in the UK against subsidiaries of Barrick Gold Corp, alleging serious abuses by security forces guarding the North Mara gold mine in Tanzania.⁹⁷ The claimants, from mining-affected communities near the mine, include victims of alleged assaults by security forces employed at the mine and by local police, and relatives of those allegedly killed by the security forces. An earlier lawsuit brought to UK courts by relatives of others shot by the mine's security forces, was settled out of court in 2015 by Barrick Gold Corp's subsidiary Acacia Mining.

In 2020, the Supreme Court of Canada ruled that claims of human rights abuses at the Bisha copper-zinc mine in Eritrea could be heard by British Columbia courts. The lawsuit was filed in Canada by a small group of former workers at the Eritrean mine site. The claims allege that the British Columbia-based Nevsun (acquired by Zijin in 2018) was complicit in the use of forced labour by a sub-contractor at the mine site.⁹⁸ A similar ruling on the case by the Supreme Court of British Columbia in 2016, which was unsuccessfully appealed by Nevsun, was the first time that a Canadian court recognised that a company could be sued for alleged violations of customary international law.⁹⁹ The lawsuit was eventually settled out of court with the company paying an undisclosed but "significant" amount, according to Amnesty International.¹⁰⁰

CONTEXT

Challenges of filing home country lawsuits against mining companies

The wider significance of the British and Canadian court rulings is underlined by the difficulties often encountered by claimants wishing to file lawsuits against local entities of multinational companies in the countries where impacts allegedly occurred.¹⁰¹ Establishing jurisdiction in home countries can be particularly challenging. For example, attempts to sue BHP in the UK for damages from the 2015 Samarco tailings dam in Brazil have so far been unsuccessful. The lawsuit, on behalf of about 200,000 Brazilian claimants, was rejected by a UK court in 2020 and the claimants' lawyers are now planning to petition the English Court of Appeal to review the case. The failure of the tailings dam at Samarco mine (owned jointly by BHP and Vale) killed 19 residents in Minas Gerais and caused what was at the time Brazil's worst environmental disaster.

Companies' efforts to prevent harm and report harmful impacts

Corporate measures to prevent harm

By comparing the study results with the results of the RMI Report 2020, which assesses the EESG policies and practices of the same 38 companies, it is possible to look for any correlations between the EESG measures that the companies are taking and the occurrence of harmful impacts by the same companies. Some results of this comparison are summarised below.

Commitments

Corporate policies on issues such as human rights, anti-bribery and corruption and environmental responsibility comprise a necessary basis for responsible mining practices. Yet these public commitments seem to make little difference to the likelihood that companies will be involved in harmful impacts.

Among the 12 companies associated with known incidents of human rights violations, 10 have formal human rights policies

For example, 10 of the 12 companies associated with known incidents of human rights violations (violent attacks, violations of Indigenous Peoples' rights, child labour and forced labour, etc.) have established formal human rights policies and dedicated resources to operationalise these commitments. And 29 of the 30 companies that reported accidental

workplace fatalities have established formal commitments to provide safe working conditions and have dedicated resources to operationalise these commitments.

Among the 30 companies that reported accidental workplace fatalities, 29 have formal commitments to provide safe working conditions

This disconnect between policies and actual impacts on the ground has been highlighted in a recent report by Business & Human Rights Resource Centre, which analyses the human rights policies and performance of 30 extractives companies in Eastern Europe and Central Asia. The report found that many of the companies with the most comprehensive human rights policies were also among those associated with severe human rights allegations. For example, seven of the 19 companies with human rights policies faced allegations around deaths or violence.¹⁰²

Corporate commitments do play an important role in setting out the standards to which companies hold themselves. Yet by themselves they are evidently insufficient to prevent harmful impacts of the kinds seen in this study.

ESG management systems

Many of the companies in the study have developed ESG management systems to implement their commitments on these issues. As with commitments, these systems are important building blocks for responsible practices but again they are insufficient to prevent harmful impacts. This is not surprising as RMF's research has repeatedly shown that companies' corporate systems are not implemented consistently across their different operations.

For example, seven of the 12 companies associated with known incidents of human rights violations show evidence of relatively strong corporate systems to require regular human rights due diligence across their operations. Such due diligence systems are one of the most important ESG risk management systems for mining companies to develop and implement. Yet none of these companies could demonstrate that they systematically track the implementation of these corporate requirements on human rights due diligence across their operations.

Among the 12 companies associated with known incidents of human rights violations, 7 show evidence of corporate systems to require regular human rights due diligence

Regarding Indigenous Peoples' rights, one of the five companies involved in reported violations of Indigenous Peoples' rights scores full marks on having a system to identify the rights and needs of Indigenous Peoples and develop strategies and plans to address these. But the same company scores only 25% on tracking and reviewing the effectiveness of the measures it takes to actually respect these rights. Clearly these systems are not being monitored adequately and are not being applied as intended.

Efforts to review and improve the effectiveness of ESG management

In line with the standard continuous improvement management framework of Plan-Do-Check-Act, the RMI Report assesses not only company commitments and actions but also the extent to which companies are monitoring and reviewing their performance on managing ESG issues. Company results on performance monitoring are consistently among the weakest areas seen. If companies cannot 'know and show' how effective they are at preventing harmful impacts, they will be less able to identify the need for corrective action or find opportunities to improve their performance – as reflected in the results of this study.

For example, the companies show very limited evidence of tracking and reviewing their performance on managing human rights issues. The 12 companies associated with known incidents of human rights violations score an average of only 25% on tracking and reviewing the effectiveness of their management of human rights issues and taking action to improve their performance on human rights. Three of these companies score zero on this issue.

Company reporting of harmful impacts

In examining company reporting on serious incidents, the study found this reporting to be very limited, and with wide variation between companies on the extent to which they publicly disclose negative impacts of their activities. This reflects similar findings of other research.¹⁰³

The shortcomings in company reporting of impacts include for example:

Lack of mine-site specific information. For example, companies often report the total number of fatalities across their operations or the total number of human rights incidents that occurred, without specifying which mine sites were involved.

Lack of comparable data. For example, companies use a wide array of metrics when reporting serious injuries among their workforces or environmental incidents (see Tables 2 and 3).

Lack of absolute figures. For example, more than 20% of the companies that do report serious injuries provide data only as a rate (per million hours worked) rather than specifying the number of workers affected.

Lack of reporting on community mining-related fatalities. Very few companies report on incidents that resulted in fatalities or serious injuries to community members. Even these companies provide few details of these incidents.

Lack of reporting on environmental incidents. Nearly 30% of companies do not report on environmental incidents caused by their operations. Those that do report generally include only the number of most serious incidents. Very few companies report on the cause, nature or scale of these incidents or on any actions taken to mitigate the impacts or prevent recurrences.

What qualifies as a serious incident for reporting purposes?

Companies rarely specify the way in which they define general terms such as 'dispute' or 'human rights incident'. Where companies do explain the use of these terms, it is clear that the threshold for a 'publicly reportable incident' is high.

For example, in Teck's reporting on significant disputes between the company and communities, it states that disputes are defined as such only if they meet the following criteria: *"Disputes are considered significant when they cannot be resolved jointly within a reasonable time frame, are repeated or widespread, or represent potentially significant or long-term financial, legal or reputational consequences for the community or company"*.¹⁰⁴

Similarly, in Glencore's 2019 reporting of human rights incidents, the company doesn't define what such an incident entails but in other communications a company representative stated that Glencore defined a human rights incident as: *"a fatality that occurs as a result of some kind of an interaction with the community"*.¹⁰⁵ This narrow definition has been criticised by civil society groups,¹⁰⁶ and the same representative recognised the need to refine the definition to *"look at other aspects of human rights"*.¹⁰⁷ In its 2020 Sustainability Report, Glencore describes its new classification of human rights incidents, defining what would constitute a 'major' or a 'catastrophic' incident. (A catastrophic incident is "one with a gross human rights violation or grave systemic human rights impacts" and a major incident "involves an isolated grave or serious systemic abuses on economic, social and cultural rights".) However, the company reports only on the (zero) incidence of these two most severe categories, giving no information on other incidents.¹⁰⁸

Statistics alone are of little value

Aggregate numbers of harmful incidents, without contextual details, are of little value to the senior managers or external stakeholders wishing to know about the impacts of company activities. The following examples illustrate the limitations of such reporting.

Newmont reports in its 2020 ESG Data Tables that it had 650 environmental releases in 2019 and 434 in 2020. While these figures are broken down by the products spilled (cyanide, mercury, etc.) there is no information on the locations of the spills or the severity of the pollution incidents.¹⁰⁹ There is also no information on any corrective actions taken to prevent recurrences.

Glencore reports in its 2020 Sustainability Report the total value of significant environmental fines incurred. Other than mentioning examples of the kinds of incidents to which the fines relate, the company provides no other details such as the mine sites involved or the severity of the impacts caused.

Evrast reports in its 2020 Sustainability Report that it recorded 166 new cases of occupational disease in 2020 and 237 in 2019. The company lists the most common health problems (hearing disability and illnesses of musculoskeletal system) but gives no other information, such as the severity of the impacts on the workers involved.¹¹⁰

Banpu reports 214 recordable injuries in its 2019 Sustainability Report. The company breaks this figure down into those affecting employees and those affecting contract workers, but otherwise there is no further information on, for example, which mine sites were involved or the severity of the injuries.¹¹¹

Table 2 Companies' public reporting of serious injuries to their workers

Company	Metrics used in companies' public reporting of injuries	Injuries data reported (2019 and 2020)
Anglo American	Lost-time injuries Medical Treatment cases First aid cases Total recordable injuries Total injuries	Lost-time injuries: 602 Medical Treatment cases: 364 First aid cases: 2794 Total recordable injuries: 972 Total injuries: 3766
AngloGold Ashanti	Injuries to security personnel Total recordable injuries*	Injuries to security personnel: 33 Total recordable injuries: 482*
Antofagasta	Company's own reporting includes only a rate, not absolute numbers Total recordable injuries*	Total recordable injuries: 271*
ArcelorMittal	■ Data provided only a rate, not absolute numbers	■
Banpu	Number of recordable injury (employee and contractor) Number of high-consequence work-related injuries (employee and contractor)	Number of recordable injury (employee and contractor): 416 Number of high-consequence work-related injuries (employee and contractor): 4
Barrick Gold Corp	Total reportable injuries Lost-time injuries Restricted duty injuries Medical treatment injuries	Total reportable injuries: 402 Lost-time injuries: 86 Restricted duty injuries: 43** Medical treatment injuries: 102**
BHP	Number of recordable injury (employee and contractor) High potential injuries	Number of recordable injury (employee and contractor): 737** High potential injuries: 92
Buenaventura	■ Data provided only as a rate, not absolute numbers	■
Bumi Resources	■ Data provided only as a rate, not absolute numbers	■
China Shenhua	Work-related injuries	Work-related injuries: 225
Coal India	Serious injuries (employees + contractors)	Serious injuries: 178
CODELCO	Lost-time injuries Total recordable injuries*	Lost-time injuries: 2020 Total recordable injuries: 1400*
ERG	Lost-time injuries	Lost-time injuries: 102**
Evraz	■ Data provided only as a rate, not absolute numbers	■
Exxaro Resources	Lost-time injuries	Lost-time injuries: 35
First Quantum Minerals	■ Data provided only as a rate, not absolute numbers	■
Fortescue	■ Data provided only as a rate, not absolute numbers	■
Freeport-McMoRan	Company's own reporting includes only a rate, not absolute numbers Total recordable injuries*	Total recordable injuries: 944*
Glencore	Company's own reporting includes only a rate, not absolute numbers Total recordable injuries*	Total recordable injuries: 1850*
Gold Fields	Serious injuries Lost time injuries Restricted work injuries Medically treated injuries Total recordable injuries	Serious injuries : 25 Lost time injuries: 70 Restricted work injuries: 95 Medically treated injuries: 44 Total recordable injuries: 211
Grupo México	Permanent incapacitating injuries Temporary incapacitating injuries	Permanent incapacitating injuries: 3 Temporary incapacitating injuries: 385
Industrias Peñoles	■ Not reported (reports accidents but not injuries)	■
MMG	Workplace injuries Total recordable injuries*	Workplace injuries: 72 Total recordable injuries: 72*
Navoi MMC	Severe injuries	Severe injuries: 25
Newcrest Mining	Life changing injuries Total recordable injuries*	Life changing injuries: 0 Total recordable injuries: 151*
Newmont Mining	Restricted work injuries Medical treatment injuries Lost day injuries Total recordable injuries*	Restricted work injuries: 49 Medical treatment injuries: 60 Lost day injuries: 60 Total recordable injuries: 254*
NMDC	■ Data provided only as a rate, not absolute numbers	■
Nordgold	Lost-time injuries	Lost-time injuries: 27**
Orano	Company's own reporting includes only a rate, not absolute numbers Total recordable injuries*	Total recordable injuries: 110*
Peabody Energy	■ Data provided only as a rate, not absolute numbers	■
Polymetal	Severe injuries Minor injuries	Severe injuries: 50 Minor injuries: 5
Rio Tinto	Lost-time injuries Total recordable injuries*	Lost-time injuries: 417 Total recordable injuries: 664*
RUSAL	Work related injuries Number of high-consequence work-related injuries	Work related injuries: 179 Number of high-consequence work-related injuries: 56
Sibanye-Stillwater	Lost-time injuries Number of serious injuries Total recordable injuries	Lost-time injuries: 1716 Number of serious injuries: 493 Total recordable injuries: 1011*
Teck	Lost-time injuries Total recordable injuries*	Lost-time injuries: 175 Total recordable injuries: 391*
Vale	Company's own reporting includes only a rate, not absolute numbers Total recordable injuries*	Total recordable injuries: 1517*
Vedanta Resources	Total injuries	Total injuries: 614
Zijin	■ Data provided only as a rate, not absolute numbers	■

* Data not included in company's own reporting; available only in ICMC Safety Data 2019 and 2020 (<https://www.icmm.com/en-gb/health-and-safety>)

** Data available for only one of the two years (2019 or 2020)

Table 3 Companies' public reporting of environmental incidents

Company	Metric/term used by company in public reporting of environmental incidents	Reported incidents (2019 and 2020)
Anglo American	Significant environmental incidents levels 3, 4, 5	Level 3: 2 Level 4: 0 Level 5: 0
AngloGold Ashanti	Reportable environmental incidents	9
Antofagasta	High potential environmental incidents	0
ArcelorMittal	■	■
Banpu	Significant environmental incidents	0
Barrick Gold Corp	Significant environmental incidents classes 1, 2, 3	Class 1: 0 Class 2: 21
BHP	Accidental discharges of water and tailings	0
Buenaventura	■	■
Bumi Resources	■	■
China Shenhua*	Ecological and environmental protection incidents causing serious impacts	0
Coal India	■	■
CODELCO*	Incidents with environmental consequences (serious and very serious categories)	0
ERG	■	■
Evraz	Material environmental incidents	0
Exxaro Resources	Reportable environmental incidents levels 1, 2, 3	Level 1: 464 Level 2: 0 Level 3: 0
First Quantum Minerals	Environmental incidents levels 1, 2, 3, 4, 5	Level 1: 398 Level 2: 432 Level 3: 357 Level 4: 0 Level 5: 0
Fortescue	Significant environmental incidents	0
Freeport-McMoRan	Reportable spills or releases of hazardous or toxic chemicals Notices of Violation (NOVs) related to permit exceedances, spills, releases or other compliance matters Significant Environmental Events	Reportable spills or releases of hazardous or toxic chemicals: 52 NOVs: 12 Significant Environmental Events: 0
Glencore	Significant spills and environmental incidents levels 3, 4 5	Level 3: 3 Level 4: 0 Level 5: 0
Gold Fields	Environmental incidents levels 2, 3, 4, 5	Level 2: 49 Level 3: 0 Level 4: 0 Level 5: 0
Grupo México	Significant spills	15
Industrias Peñoles	Significant spills	0
MMG	■	■
Navoi MMC	■	■
Newcrest Mining	Significant environmental incidents levels 3, 4, 5	Level 3: 0 Level 4: 0 Level 5: 0
Newmont Mining	2019: Significant environmental events (no levels specified) 2020: Significant environmental events levels 3, 4, 5	2019: Significant environmental events: 3 2020: Level 3: 8 Level 4: 2 Level 5: 0
NMDC	■	■
Nordgold	Events that caused or could have potentially caused an abnormal environmental footprint	31
Orano*	Environmental events leading to a major environmental impact	0
Peabody Energy	■	■
Polymetal*	Environmental incidents	0
Rio Tinto	Significant environmental incidents	0
RUSAL	■	■
Sibanye-Stillwater	Environmental incidents levels 3, 4, 5	Level 3: 10 Level 4: 0 Level 5: 0
Teck	Significant spills and environmental incidents	0
Vale	Critical incidents Severe incidents	Critical incidents: 3 Severe incidents: 13
Vedanta Resources	■	■
Zijin	Environmental incidents	0

* Company publicly reported environmental incidents in only one of the two years (2019 or 2020)

■ Company did not publicly report environmental incidents in 2019 nor in 2020

Annex 1

Methodology

Scope

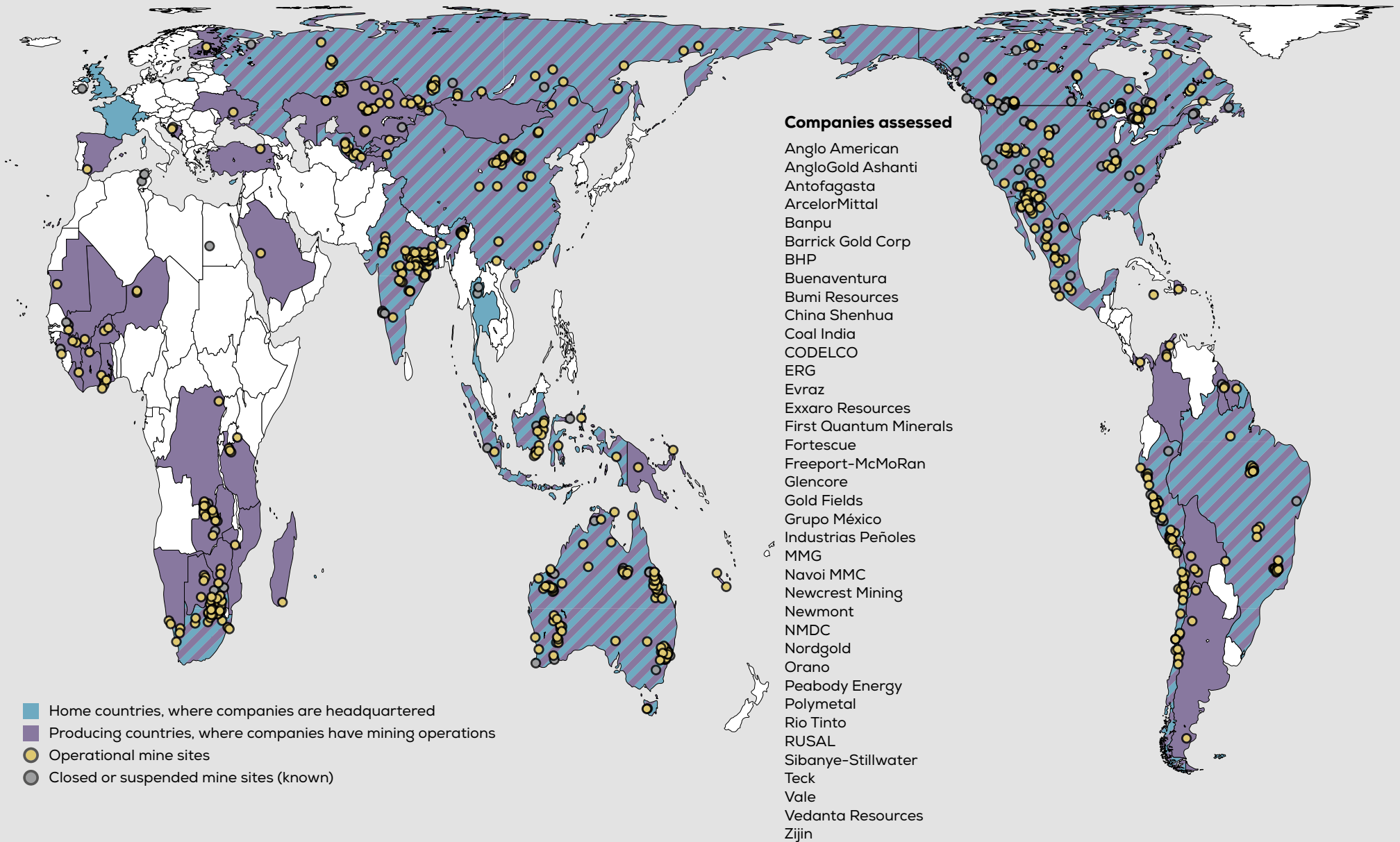
The company and geographic scope of the study is shown in the map below. The study includes impacts associated with private companies and state-owned enterprises as well as publicly listed companies. These 38 companies together account for approximately 28 per cent of global mining production, collectively covering 1,000 mining operations, 18 home countries and 55 producing countries.

The study covers any harmful impacts caused, or contributed to, by any of the companies' mining-related activities, or impacts otherwise directly linked to the companies' presence, operations or business relationships. This includes harmful impacts related to acts of omission (i.e., by companies failing to take adequate preventive action) as well as acts of commission (i.e., by companies' mismanagement or poor decision-making). Incidents are included if they occurred (or caused ongoing impacts) during 2019 or 2020, or if they resulted in legal cases ongoing during this time period. Where possible, this report includes updated information on new or ongoing cases in the first six months of 2021. The study includes incidents that have generated severe impacts on people, the environment or society at large, rather than any that have impacted only the company or mining operation involved. And the study is limited to incidents for which there is evidence of a direct connection with a company and for which there is a reasonable expectation of responsibility and accountability on the part of the company. The study focuses on credible reports of incidents from respected sources and excludes allegations of potential future impacts or general criticisms of companies' modus operandi or core business.

The study covered the following sources of information: Banktrack, Business & Human Rights Resource Centre, Centre for Research on Multinational Corporations (SOMO), Earthworks, Global Witness, Human Rights Watch, London Mining Network, Mining.com, MiningWatch Canada, OECD National Contact Points database, Office of the Compliance Advisor Ombudsman for IFC projects, and Public Eye. The research sourced reports in many of the eleven languages covered by the Business & Human Rights Resource Centre (English, Arabic, German, Spanish, French, Italian, Japanese, Burmese, Portuguese, Russian, Chinese).

Geographic and company scope of the study

Figure 9 Geographic and company scope of the study



Limitations

The study is not intended to be an exhaustive inventory of all severe impacts associated with the 38 companies during the two-year period, given the very limited and variable company reporting and the restricted civic space and media freedom in some regions of the world.

The study was entirely desk-based and companies were not consulted or invited to comment on the incidents included. Likewise, the study did not engage with civil society or other stakeholders to seek further information.

Given the wide variation in the availability and representation of information on impacts associated with different companies, the study should not be used as a comparative assessment of company performances in preventing severe impacts.

The study focuses on the most harmful impacts of mining and as such does not cover less harmful but potentially more commonplace impacts (such as those related to discrimination in recruitment and in professional development), continuously occurring impacts (such as greenhouse gas emissions or pollution from acid mine drainage and tailings leaching), or the long-term social and environmental problems from the many abandoned mine sites worldwide. These impacts, while important, are more difficult to capture in a study such as this, given that they are rarely reported as standalone incidents within a defined timeframe.

The study does not attempt to attribute or attribute culpability to the companies involved in these impacts. There is often a degree of uncertainty as to the level of responsibility of the company and companies often claim that harmful events occurred out of their control. Rather, the study shows the range of impacts that have been associated with this sample of companies over the two-year period, as an illustrative snapshot of the harmful impacts of mining activities worldwide.

Annex 2

Endnotes

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